Exploring Educational Institutions' Orientation in Relation to International Student Recruitment Performance: The Strategic Orientation Performance (SOP) Model

Mitchell John Campbell Ross
B. Mus (Hons), B. Mus (Ed), Grad Dip Int. Ed, MBA

Department of Marketing
Griffith Business School
Griffith University

Submitted in fulfilment of the requirements of the degree of
Doctor of Philosophy
November 2008
International education is an important, and expanding, global industry. However, much remains unknown about the international student recruitment industry, its key variables and its performance outcomes. This study addresses this lack of understanding. The research objectives of this study seek to enhance the current theoretical understanding of performance by initially investigating its relationship with market orientation and learning orientation. Secondly, the study seeks to investigate international student recruitment marketing within educational institutions to determine the relevance of these constructs and to determine the extent to which market orientation, learning orientation and innovativeness influence performance. Thirdly, the study seeks to investigate how the relationship between market orientation, learning orientation and performance differs across educational sectors and international student recruitment (ISR) marketing strategy types. In doing so, prominent strategy typologies are considered for their suitability as an investigative framework to explore ISR marketing strategies within educational institutions. As a result, the Value Discipline typology (Treacy & Wiersema, 1993, 1995) is found to be the most appropriate for this study due to its emphasis on value, rather than profitability or market share.

Much of the literature investigating international education focuses on either student choice or student perception. A small body of empirical marketing literature pertaining to educational institutions is found within the literature. For example, within the international education domain, researchers have investigated marketing strategy (Elkin, Farnsworth, & Templer, 2008) and its relationship with performance (Mazzarol & Soutar, 2008) as well as the management of international student recruitment (Ross, Heaney, & Cooper, 2007). A strong positive relationship between market orientation and institutional performance is found within the university sector (Caruana, Ramaseshan, & Ewing, 1998; Hammond, Webster, & Harmon, 2006) although similar studies are not identified within other education sectors (Oplatka & Hemsley-Brown, 2007). Despite calls to understand the importance of learning orientation within the education sector (Austin & Harkins, 2008), the potential benefits of learning orientation to the sector are not yet known (Imants, 2003; Thomas & Allen, 2006).
Based on the collective findings from previous studies and considering the relationships between market and learning orientations, innovativeness and performance, the Strategic Orientation Performance (SOP) Model is proposed as a conceptual investigative framework. The SOP Model is a conceptual representation of the relationships proposed to exist between the constructs, market orientation, learning orientation, innovativeness (ISR), perceived external market effects and perceived organisational performance.

The study adopted a quantitative methodology using a self-administered questionnaire delivered to respondents via email. The construction of the questionnaire followed a sequential process which involved adapting and pretesting existing scales to ensure the development of a psychometrically sound survey instrument. Data collection resulted in the gathering of 302 surveys appropriate for use in the analysis. Analysis included a number of statistical procedures such as correlation analysis, exploratory factor analysis, reliability analysis and Partial Least Squares (PLS) analysis. Overall, the findings provided support for the proposed SOP Model. However, significant differences were found across different strategy types and education sectors.

The SOP Model extends previous orientation-performance models and enhances the relevance and applicability of this type of model across a wide variety of both profit and not-for-profit contexts. The previously unidentified marketing strategy, entrenched isolation, emerged during the study thus extending the Value Discipline strategy typology. This typology was validated as a means of identifying the prevailing market strategy within services. Lastly, within a discordant body of market orientation literature, this study aligns with one of the dominant paradigms and, thereby, provides a strong impetus for further research. Furthermore, future research will benefit significantly through the use of the SOP Model as a solid foundation for further discovery in this important research domain.
Statement of Originality

I, Mitchell Ross, declare this work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Mitchell Ross
November, 2008.
# Table of Contents

Abstract ...................................................................................................................... ii  
Statement of Originality ......................................................................................... iv  
Table of Contents ..................................................................................................... v  
Table of Tables ......................................................................................................... xi  
Table of Figures ....................................................................................................... xiv  
Acknowledgements .................................................................................................. xv  
Publications Resulting from this Dissertation ....................................................... xvi  

**Chapter One: Introduction** .................................................................................... 1  
1.1 Background ........................................................................................................ 1  
1.2 Research Objectives ......................................................................................... 3  
1.3 Definitions and Terms ....................................................................................... 6  
1.4 Justifications and Importance of the Study ....................................................... 7  
  1.4.1 Importance ................................................................................................... 8  
  1.4.2 Contributions .............................................................................................. 9  
  1.4.3 Justification .................................................................................................. 9  
1.5 Research Method ............................................................................................... 10  
1.6 Thesis Outline ................................................................................................... 11  
1.7 Delimitations ..................................................................................................... 12  
1.8 Conclusion ......................................................................................................... 13  

**Chapter Two: Literature Review** .......................................................................... 14  
2.1 Introduction ........................................................................................................ 14  
2.2 International Students and International Student Recruitment ....................... 14  
  2.2.1 Globalisation and Internationalisation ....................................................... 16  
  2.2.2 Governments and Other Organisations ...................................................... 19  
  2.2.3 International Students ................................................................................. 21  
  2.2.3.1 International Student Choice ................................................................. 21  
  2.2.3.2 International Student Perception .......................................................... 22  
  2.2.4 Educational Institutions ............................................................................. 23  
  2.2.4.1 Institutional Focus – University ............................................................... 23
2.2.4.2 Institutional Focus – Secondary School .......................... 25
2.2.4.3 Institutional Focus – Cross Sector ................................. 25
2.2.5 Summary of International Education Literature ................... 26

2.3 Market Orientation ............................................................ 28
2.3.1 Market Orientation Conceptualisation ............................... 29
2.3.2 Antecedents of Market Orientation ................................. 30
2.3.3 Consequences of Market Orientation ............................... 33
2.3.3.1 Innovativeness as a Consequence of Market Orientation ... 33
2.3.3.2 Organisational Performance as a Consequence of Market Orientation .......................................................... 34
2.3.4 Market Orientation and Education ................................. 35
2.3.5 Summary of Market Orientation ....................................... 36

2.4 Learning Orientation ........................................................... 38
2.4.1 Learning Orientation Conceptualisation ............................ 38
2.4.2 Antecedents of Learning Orientation ............................... 40
2.4.3 Consequences of Learning Orientation ............................. 42
2.4.3.1 Innovativeness as a Consequence of Learning Orientation ... 42
2.4.3.2 Organisational Performance as a Consequence of Learning Orientation .......................................................... 43
2.4.4 Learning Orientation and Education ............................... 44
2.4.5 Summary of Learning Orientation .................................... 45

2.5 Marketing Strategy Typologies ............................................ 47
2.5.1 Generic Competitive Strategy Typology ........................... 48
2.5.2 Differentiation Strategy Typology ................................... 48
2.5.3 Miles and Snow .............................................................. 49
2.5.4 Value Discipline Typology ............................................ 50
2.5.5 Summary of Marketing Strategy Typologies ..................... 51

2.6 Conclusion ........................................................................... 53

Chapter Three: Model Development ........................................... 55

3.1 Introduction .......................................................................... 55
3.2 Literature Relating to SOP Model Development ..................... 55
3.2.1 Performance ..................................................................... 56
3.2.2 Innovativeness (ISR) .......................................................... 58
3.2.3 Perceived External Market Effects ................................. 59
3.2.4 Market Orientation ......................................................... 61
3.2.5 Learning Orientation .......................................................... 64
3.3 Strategic Orientation Performance (SOP) Model ......................... 67
3.4 Hypothesis Summary .............................................................. 69
3.5 Marketing Strategy ............................................................... 70
3.6 Education Sector ................................................................. 71
3.7 Conclusion ........................................................................ 72

Chapter Four: Methodology ................................................... 73
4.1 Introduction ...................................................................... 73
4.2 Methodological Approach .................................................. 73
4.3 Research Planning .............................................................. 75
  4.3.1 Preliminary Planning Stage ............................................ 77
  4.3.2 Research Design .............................................................. 77
    4.3.2.1 Research Approach .................................................. 77
    4.3.2.2 Research Tactics ......................................................... 80
    4.3.2.3 Survey Development – Phase One .............................. 82
      4.3.2.3.1 Measuring Market Orientation ............................... 82
      4.3.2.3.2 Measuring Learning Orientation .............................. 83
      4.3.2.3.3 Measuring Innovativeness (ISR) ......................... 84
      4.3.2.3.4 Measuring Perceived External Market Effects ....... 85
      4.3.2.3.5 Measuring Perceived Organisational Performance ..... 86
      4.3.2.3.6 Initial Item Pool ...................................................... 88
      4.3.2.3.7 Scale and Response Format Selection .................. 88
      4.3.2.3.8 Measuring ISR Marketing Strategy ....................... 89
    4.3.2.4 Survey Development – Phase Two .............................. 92
      4.3.2.4.1 Expert Panel Pre-test ........................................... 92
    4.3.2.5 Online Survey Development Process .......................... 94
    4.3.2.6 The Sampling Plan ..................................................... 96
    4.3.2.7 Anticipated Analysis .................................................. 97
  4.3.3 Implementation .............................................................. 97
6.6 Future Research ................................................................. 164

6.6.1 Self-Typing Paragraph and the ISR Marketing Strategy
    Typology ................................................................. 165

6.6.2 Entrenched Isolation Strategy ........................................ 165

6.6.3 ISR Marketing Strategy Antecedents and Strategic Change ...... 165

6.6.4 Robustness of the SOP Model ................................. 166

6.6.5 External Environment and Organisational Performance .......... 166

6.6.6 Innovativeness ...................................................... 167

6.7 Conclusion ....................................................................... 167

Appendices

Appendix A ......................................................................... 169
Appendix B ......................................................................... 183
Appendix C ......................................................................... 186
Appendix D ......................................................................... 188
Appendix E ......................................................................... 191

References ........................................................................ 195
Table of Tables

Chapter One: Introduction
Table 1.1 Definitions of Key Terms ........................................... 6
Table 1.2 Definitions of Constructs ........................................... 7

Chapter Two: Literature Review
Table 2.1 International Education Literature Categories .................. 15
Table 2.2 Critical Marketing Variables ........................................ 26
Table 2.3 Differentiation Strategies .......................................... 49
Table 2.4 Comparison of Value Discipline Features ....................... 51

Chapter Three: Model Development
Table 3.1 Competing Model Typologies ...................................... 56
Table 3.2 Operationalisation of Performance ................................ 57
Table 3.3 SOP Model – Definitions of Constructs ......................... 68
Table 3.4 Summary of Hypotheses ........................................... 70

Chapter Four: Methodology
Table 4.1 Quantitative versus Qualitative Research ....................... 75
Table 4.2 Advantages of Survey Data Collection Methods ................ 79
Table 4.3 Comparison of Survey Types ..................................... 80
Table 4.4 Examples of Changes made to Market Orientation Scale ....... 83
Table 4.5 Examples of Changes made to Market Orientation (Responsiveness) .................................................. 83
Table 4.6 Examples of Changes made to Learning Orientation Scale ...... 84
Table 4.7 Examples of Changes made to Innovativeness (ISR) Scale ...... 84
Table 4.8 Examples of Changes made to Perceived External Market Effects Scale ................................................................. 86
Table 4.9 Examples of Changes made to Perceived Organisational Performance Scale ...................................................... 87
Table 4.10 Existing Measures and Number of Items Used ................ 87
Table 4.11 ISR Marketing Strategy Descriptors ............................ 92
Table 4.12 Changes made to Draft Survey Items for Final Survey .............. 94

Chapter Five: Results

Table 5.1 Profile of Respondents ............................................................ 101
Table 5.2 Preliminary Analysis ............................................................... 103
Table 5.3 Preliminary Data Analysis – Market Orientation ....................... 106
Table 5.4 Preliminary Data Analysis – Learning Orientation ..................... 107
Table 5.5 Preliminary Data Analysis – Innovativeness (ISR) ..................... 108
Table 5.6 Preliminary Data Analysis – Perceived External Market Effects ... 109
Table 5.7 Preliminary Data Analysis – Perceived Organisational
Performance ......................................................................................... 110
Table 5.8 Means and Standard Deviations of Composite Measures .......... 111
Table 5.9 PLS Results for the Theoretical Model ..................................... 115
Table 5.10 Results of Hypothesis Testing ................................................. 116
Table 5.11 PLS Results for the Theoretical Model – Operational Excellence
Strategy .............................................................................................. 118
Table 5.12 PLS Results for the Theoretical Model – Product Leadership
Strategy .............................................................................................. 119
Table 5.13 PLS Results for the Theoretical Model – Customer Intimacy
Strategy .............................................................................................. 121
Table 5.14 PLS Results for the Theoretical Model – Entrenched Isolation
Strategy .............................................................................................. 122
Table 5.15 Comparison of ISR Marketing Strategy Models ...................... 124
Table 5.16 Comparison of Standardised path coefficients via t-tests .......... 125
Table 5.17 PLS Results for the Theoretical Model – Secondary School
Sector ................................................................................................. 127
Table 5.18 PLS Results for the Theoretical Model – University Sector ........ 128
Table 5.19 Comparison of Education Sector Models .............................. 130
Table 5.20 Comparison of Standardised path coefficients via t-tests .......... 131

Chapter Six: Discussion

Table 6.1 ISR Marketing Strategies and Descriptors ............................... 142
Table 6.2 Summary of Results of Path Strength Comparison .................... 147
Table 6.3  Key Indicator Characteristics of ISR Marketing Strategies ........... 149
Table 6.4  $R^2$ and AVA for ISR Marketing Strategies .......................... 150
Table 6.5  $R^2$ and AVA for Education Sectors ................................. 153
# Table of Figures

## Chapter One: Introduction

Figure 1.1  Strategic Orientation Performance (SOP) Model ..........................  5  
Figure 1.2  Importance, Justification and Contributions of the Study .............  8

## Chapter Two: Literature Review

Figure 2.1  Relationship Between Andressen (1992) and the Current Study ....  16  
Figure 2.2  Generic Strategies .................................................................  48

## Chapter Three: Model Development

Figure 3.1  Model Development Stage One ..............................................  58  
Figure 3.2  Model Development Stage Two ...............................................  61  
Figure 3.3  Model Development Stage Three .........................................  64  
Figure 3.4  Model Development Stage Four ...........................................  67  
Figure 3.5  Proposed Conceptual Model ...............................................  69

## Chapter Four: Methodology

Figure 4.1  Marketing Research Design Process .......................................  76  
Figure 4.2  Survey Development Process ...............................................  81

## Chapter Five: Results

Figure 5.1  Proposed Model Showing Results of Analysis .........................  116  
Figure 5.2  Model Results for Operational Excellence Strategy ..................  118  
Figure 5.3  Model Results for Product Leadership Strategy .......................  120  
Figure 5.4  Model Results for Customer Intimacy Strategy ......................  121  
Figure 5.5  Model Results for Entrenched Isolation Strategy ...................  123  
Figure 5.6  Model Results for Secondary School Sector ..........................  127  
Figure 5.7  Model Results for University Sector ....................................  129

## Chapter Six: Discussion

Figure 6.1  Strategic Orientation Performance (SOP) Model .......................  134
Acknowledgements

Although an end of sorts, this document also marks the beginning of the next episode in a particularly interesting and exciting journey. During my journey, so far, I am very fortunate to have had the support and guidance of some very special people. In particular I would like to thank Associate Professor Joo-Gim Heaney for whose initial encouragement, guidance and enduring friendship I am especially grateful.

I would also like to thank Associate Professor Maxine Cooper and Dr Carmel Herington who offered crucial input and advice at various times throughout my study and the preparation of this document.

My most humble and sincere thanks are reserved for Dr Debra Grace who has been a constant inspiration and wonderful academic mentor. Her straight-forward approach coupled with a high degree of insight has made this study a particularly enjoyable undertaking.

Finally, I would like to thank my family, peers and colleagues for their continued support and encouragement. There is no doubt I am truly blessed.
Publications Resulting from this Dissertation


Chapter One

Introduction

Over the past 25 years the global trade in educational services has expanded significantly, creating a substantial market place that has led many schools, colleges and universities to adopt more market-oriented behaviours

(Mazzarol & Soutar, 2001)

1.1 Background

International students are an important and valued resource for many educational institutions. Consequently, the recruitment of international students is an important activity undertaken by educational institutions. Educational institutions recruit international students for predominantly financial, altruistic and pedagogical reasons. For some institutions, fees generated through international students permits the institution to offer programs and services that otherwise may not be affordable and, additionally, it may reduce an institution’s reliance on government subsidies. For other institutions, international students are a means of achieving a depth and diversity in the student cohort and broadening students’ educational and personal experiences. Still for other institutions, international students afford an institution the opportunity to participate in pedagogical development by offering international students an educational experience that may not be available in their home country.

Both domestic and international students benefit from exposure to other cultures and perspectives, enabling them to develop skills to succeed in cross-cultural contexts. Export education initiatives can mean access to courses of study that might not otherwise be available. They can also offer opportunities to develop personal and institutional relationships of long-term value.

International Division (2006)
There is a long history of students crossing global borders for the purpose of education (Bevis & Lucas, 2007; Marginson, 2004; Mazzarol & Soutar, 2001). However, in the main, the international education industry began to develop in the years following World War II (Auletta, 2000). The largest growth phase in this industry has occurred over the preceding twenty five years (Mazzarol & Soutar, 2001) with the outcome that international education has now become an important global industry (Marginson, 2004). Currently this industry is the largest service export in Australia (Reserve Bank of Australia, 2008), contributing more than $14.2 billion to the Australian economy in 2007-08 (AEI, 2008b). The industry has experienced continued strong growth with an average growth rate of 16% per annum for the ten years prior to 2007 (AEI, 2008b). Additionally, in 2004, 2.5 million international students were attending educational institutions (UNESCO, 2006) and this figure is forecast to exceed 7 million students by 2025 (Bohm, Meares, Pearce, Follari, & Brown, 2003).

Given the global significance, and predicted future growth of the international education industry, it is surprising that much remains unknown about the industry, its key variables and its performance outcomes. Although the industry has grown rapidly, knowledge in relation to the marketing of international education has not developed at the same pace. Within the small body of existing literature, most international education marketing research focuses on globalisation and internationalisation (Altbach, 2004; Crowther et al., 2000; Harman, 2004; Marginson, 2004; Sanderson, 2004), student choice (AEI, 2003; Joseph & Joseph, 2000; Lawley, 1998; Mazzarol & Soutar, 2002; Pimpa, 2003; Shah & Laino, 2006), and student perception (AEI, 2002; Gatfield, Barker, & Graham, 1999; Ham & Hayduk, 2003).

The area of marketing strategy, and its relevance in the recruitment of international students, is not well represented in the small body of international educational marketing literature. However, the investigation of marketing strategy within the education domain has not been without its advocates. Shortly after the commencement of the current international student recruitment growth phase, Kotler and Murphy (1981) argued the importance of marketing strategies for educational institutions. Yet, by the mid 1990s, Mazzarol and Hosie (1996) report no evidence of consistent international education marketing strategy in Australian universities, while
Pokarier and Ridings (1998) found institutional strategic planning regarding international student recruitment (ISR) to be at a low standard. More recently, Maringe and Foskett (2002) and Maringe (2004) argued that educational institutions are not yet embracing fundamental marketing concepts and called for the adoption of marketing principles by university managers. Reflecting the lack of marketing implementation in the education sector, Hemsley-Brown and Oplatka (2006) found research of marketing within higher education remaining at a “relatively pioneer stage” (p. 334).

This dissertation responds to the call for more research in this area (e.g., Maringe, 2004; Maringe & Foskett, 2002; Oplatka & Hemsley-Brown, 2004, 2007) by developing and empirically testing a conceptual model which investigates ISR performance indicators and outcomes across different ISR marketing strategy types and education sectors.

1.2 Research Objectives

The previous discussion provides an overview of international education marketing research and highlights the need to further the extent of understanding in this area. Taking this into consideration, the research objective of this study is:

To explore international student recruitment marketing strategy in educational institutions through an investigation of institutions’ orientation and operating environments, innovativeness and perceived organisational performance.

To advance current understanding on the dynamics of international student recruitment (ISR), the intention is to examine the interaction between the institution and its ISR marketing strategy in terms of innovativeness and perceived ISR performance outcomes. It is suggested that an institutions’ market orientation, learning orientation and perceived external market environment is likely to affect constructs such as innovativeness and perceived organisational performance. Additionally, the proposed relationships will be investigated to determine if there are important differences across education sectors and ISR marketing strategies. Therefore the broader objective is further developed into the following sub-objectives.
The following sub-objectives are framed in the context of international student recruitment.

1. How does innovativeness (ISR), perceived external market effects, market orientation and learning orientation affect perceived organisational performance?

2. How do perceived external market effects, market orientation and learning orientation affect innovativeness (ISR)?

3. How do differences in ISR marketing strategies affect institutional orientation, innovativeness (ISR) and performance?

4. How do differences in education sector affect institutional orientation, innovativeness (ISR) and performance?

Chapter Two investigates relevant literature in order to address the issues raised in the sub-objectives. In particular, the chapter investigates international education and ISR literature from the perspectives of globalisation and internationalisation, government, international students and educational institutions. Additionally, marketing literature including market orientation, learning orientation and marketing strategy typologies is considered. Within the marketing literature, specific attention is focussed on the relationships between the proposed constructs. The relationships between the proposed constructs and the representative model typologies (refer Table 3.1) provide the theoretical basis behind the development of the conceptual model, the Strategic Orientation Performance (SOP) Model, developed in Chapter Three and shown in Figure 1.1.

The SOP Model depicts that for educational institutions involved in the recruitment of international students, the level of performance (perceived organisational performance) is influenced by the institution’s innovativeness (ISR), perceived external market effects, market orientation and learning orientation. Similarly the SOP Model depicts that for educational institutions involved in the recruitment of
international students, the institution’s innovativeness (ISR) is influenced by perceived external market effects, market orientation and learning orientation.

**Figure 1.1  Strategic Orientation Performance (SOP) Model**

The following discussion outlines the primary findings pertaining to the sub-objectives of the study.

**Sub-objective One.** It was hypothesised that innovativeness (ISR) (H1), perceived environmental effects (H3), market orientation (H4) and learning orientation (H6) would have a significant positive effect on perceived organisational performance. These hypotheses were all supported.

**Sub-objective Two.** Similarly, it was hypothesised that perceived environment effects (H2), market orientation (H5) and learning orientation (H7) would have a significant positive effect on innovativeness (ISR). Again each of these hypotheses were supported.
Sub-objective Three. Hypothesis H8 proposed that the structural model would differ significantly across ISR marketing strategy types (i.e., operational excellence, product leadership, customer intimacy). This hypothesis was supported.

Sub-objective Four. The final hypothesis of this study (H9) proposed that the structural model would not differ significantly across education industry sectors (i.e. secondary school and university). This hypothesis was not supported.

1.3 Definitions and Terms

Although the majority of the constructs and terms used in this study are commonly used within the marketing literature, researchers often do not adopt uniform definitions of constructs (Perry, 1998). Key terms and constructs used in this study are, therefore, defined in this chapter. Table 1.1 provides a definition for the key terms used in the study.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>International education</td>
<td>Several dimensions of international education have been proposed in the literature. International education may be considered as consisting of international assistance programs, the internationalisation of the curriculum, and the movement of students and scholars across national boundaries for the purposes of education (Lawley, 1998). For the purpose of the proposed study, international education will be defined only as the latter of these three dimensions, that is, the movement of students and scholars across national boundaries for the purposes of education.</td>
</tr>
<tr>
<td>International student</td>
<td>Within Australia, international students are referred to as overseas students (&quot;Education Services for Overseas Students Act 2000,&quot; 2000) and international students (AEI, 2003). Overseas students are defined as “a person (whether within or outside Australia) who holds a student visa” (&quot;Education Services for Overseas Students Act 2000,&quot; 2000, p. 4). Within the literature international students are referred to as international students (Mazzarol &amp; Soutar, 2002), foreign fee-paying students (Education Review Office, 2003) and overseas students (Pokarier &amp; Ridings, 1998). In this study the terminology international student will be used as this is used in Australia and also in the literature. The definition of an international student will be a person who holds a student visa and is enrolled by an education provider (&quot;Education Services for Overseas Students Act 2000,&quot; 2000, p. 4).</td>
</tr>
</tbody>
</table>
organisational performance. A definition for each of these constructs is provided in Table 1.2.

Table 1.2 Definitions of Constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>Organisational behaviours concerned with identifying customers’ needs and competitors’ actions, sharing and responding to market information (Gray, Greenley, Matear, &amp; Matheson, 1999, p. 234)</td>
</tr>
<tr>
<td>Learning Orientation</td>
<td>Set of shared organisational values that gives rise to the tendency for the organisation to create and use knowledge (Sinkula, Baker, &amp; Noordewier, 1997, p. 309). The degree to which the organisation values knowledge, is open-minded and has a shared vision (Baker &amp; Sinkula, 1999a, p. 299).</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>An organisation’s overall innovative capability (Wang &amp; Pervaiz, 2004, p. 304) and openness to new ideas as an aspect of a firm’s culture (Hurley &amp; Hult, 1998, p. 44)</td>
</tr>
<tr>
<td>Perceived external market effects</td>
<td>The perceived degree of market turbulence, competitive intensity and technological turbulence in the market environment in which the institution operates.</td>
</tr>
<tr>
<td>Perceived organisational performance</td>
<td>The perceived degree to which the organisation’s objectives, strategy and market structure are met.</td>
</tr>
</tbody>
</table>

The Strategic Orientation Performance (SOP) Model provides the central focus for the thesis in the attempt to articulate the importance of market orientation, learning orientation and innovativeness (ISR) on performance in relation to international student recruitment by educational institutions.

1.4 Justification and Importance of the Study

Investigating the ways in which orientation and operating environment impacts on innovativeness and perceived organisational performance for educational institutions recruiting international students is an area worthy of academic research. The importance of this research is emphasised by its potential practical and theoretical contributions. These serve to justify the focus of the research and highlight its potential contribution to the domains of marketing and learning orientation research, as well as marketing strategy research. Figure 1.2 summarises the importance, justification and contributions of this study and provides the foundation for the ensuing discussion.
1.4.1 Importance

As previously discussed (refer Section 1.1), international students are important to educational institutions for financial, altruistic and pedagogical reasons. Additionally, the international education industry has become an important contributor to the global economy (e.g., Infometrics, 2006; NAFSA: Association of International Educators, 2007; Reserve Bank of Australia, 2008). Although the global international industry is in a growth phase (Bohm, Meares, Pearce et al., 2003) so, too, is the degree of competition in the market (Veloutsou, Watkins, & Paton, 2004) with an increasing number of countries entering the international education market (Bennell & Pearce, 2003; Mazzarol, Soutar, & Seng, 2003; McBurnie & Ziguras, 2001).

Difficulties loom for the higher education ISR market and institutions engaged within it. Mazzarol and Hosie (1996) contend that the market is approaching maturity, while Rowley (2003) argues that education institutions are facing student retention problems in an increasingly competitive environment (Veloutsou et al., 2004). Ghosh, Javalgi and Whipple (2007) call for the better implementation of marketing principles in the student recruitment process as one means of addressing this situation. This reflects previous calls for institutions to implement marketing practices and strategic planning...
in their operations (e.g., Kotler & Murphy, 1981; Maringe & Foskett, 2002; Pokarier & Ridings, 1998). The inherent difficulty with this situation is that although institutions may be aware of the current difficulties faced and also may be aware of the external calls for action, they are not always sufficiently knowledgeable of their internal processes and prevailing ISR strategies to craft an effective response. Nor are they aware of how best to exploit their current ISR marketing strategy strengths thereby achieving better ISR performance.

1.4.2 Contributions
From a theoretical perspective the knowledge gained through this research will assist in developing an understanding of how marketing and learning orientations impact performance outcomes for educational institutions from different education sectors and across differing ISR marketing strategies. It is suggested that this study will provide a solid theoretical foundation from which future research in this area can proceed and additional knowledge be acquired.

In practical terms, the findings of this research will effectively permit ISR marketing practitioners and education managers to develop an understanding of their institution’s current ISR marketing strategy and will provide them with a method whereby their ISR marketing strategy can be effectively monitored. Additionally, should an institution seek to alter their ISR marketing strategy, the findings from this research will provide education managers with the tools to determine the extent to which the desired ISR marketing strategy has been achieved. In doing so, this will permit a more efficient and effective use of an institution’s limited resources.

1.4.3 Justification
Research investigating international education is limited (Bennell & Pearce, 2003) and, as such, there is a lack of empirical marketing literature pertaining to international student recruitment from the perspective of the educational institution. Within the reasonably small body of research literature there are a mix of ideologies and conflicting and competing findings. Little is known about how educational institutions conceptualise ISR performance, the antecedents of ISR performance or the ways in which these antecedents contribute to ISR performance. Additionally, the use of a range of methodological approaches, often, makes it difficult to make meaningful
comparisons between studies. The literature displays, almost exclusively, a university focus with few empirical international student recruitment studies having a secondary school focus. As such, the operation of ISR marketing in the secondary school sector remains largely unknown. Therefore, there are a number of gaps in the literature on ISR marketing.

This being the case, and considering the financial, altruistic and pedagogical importance of this industry (refer Figure 1.2 and Section 1.4.1), the need for empirical research investigating the marketing of international education cannot be overstated. By undertaking empirical research investigating the area of ISR marketing, from the perspective of the educational institution, this study addresses this need. This study makes an important contribution to knowledge regarding the marketing of international education by developing an understanding of ISR performance outcomes from the perspective of market and learning orientations and innovativeness.

In summary, this study is justified on several grounds. Firstly, the outcomes from this research are important to international education marketing practitioners, institutions and educational policy makers. Secondly, the research is justified by the general scarcity of research currently in the area of ISR marketing. Empirical testing of the proposed model (refer Figure 1.1) will provide considerable insight into the way in which innovativeness and performance are conceptualised and operationalised within the ISR practices of educational institutions. Thirdly, justification is also derived from the important theoretical and practical contributions that this research will make.

1.5 Research Method
The research methodology for this study is based on the development of an online survey that allows for the measurement of the constructs in the SOP Model and the comparison of data across different ISR marketing strategies and education sectors. This data collection method was adopted because of its ability to collect quantitative data for statistical analysis (Babbie, 1990), its fast turn-around (Malhotra, 1999) and that it accommodates large samples across wide geographical regions (Kumar, Aaker, & Day, 2002; Neuman, 2003). Additionally, this type of data collection is prevalent within the marketing domain (Kumar et al., 2002) and has previously been used in
A sequential two phase process was followed in developing the survey. The initial phase involved the generation of items from existing literature while the second phase involved the use of expert panels to refine the survey instrument prior to its online administration. Following these two phases assisted in ensuring that every effort was made to develop a psychometrically sound instrument to address the hypotheses of this study.

The administration of the survey adopted an internet based self-administered approach using a non-probability sampling technique. This involved the researcher sending an invitation email to potential respondents, which included information regarding the purpose and nature of the study as well as a hyperlink which allowed respondents to easily access the online survey. Analysis of the data was undertaken via correlation analysis, exploratory factor analysis, reliability analysis and Partial Least Squares (PLS) regression analysis.

1.6 Thesis Outline
This dissertation conforms to the generally accepted presentation format for doctoral dissertations. Perry (1998) advocates a five chapter approach to a doctoral dissertation which may be expanded to six or seven chapters if required. In keeping with this recommendation, a six chapter format is adopted in this dissertation.

This chapter provides an overview of the study by discussing the background to the research, stating research objectives, providing a justification for the study, outlining the methodology and presenting delimitations.

Chapter Two builds a theoretical foundation for the study by undertaking a thorough review of literature relevant to the study. The chapter commences with international education and international student recruitment (ISR) literature from the perspectives of globalisation and internationalisation, government, international students and educational institutions. Following this, literature pertaining to market orientation,
learning orientation and marketing strategy typologies is considered. Lastly, research gaps are identified and the research objectives for this study are presented.

Chapter Three builds on the theory presented in Chapter Two to logically develop the conceptual model that is to be empirically tested in the study. The Strategic Orientation Performance (SOP) Model is presented as the framework for subsequent hypothesis development.

Chapter Four outlines the methodological approach adopted for the study. A detailed justification and description is presented regarding the adopted data collection method. Additionally, the analysis proposed to test the research hypotheses is discussed.

Chapter Five presents the results of the data analysis for this study. Initially, a profile of respondents is presented followed by preliminary evaluation of the data by way of correlation analysis, exploratory factor analysis and reliability measurement. Having established the validity and reliability of the measures, results of the hypothesis testing via Partial Least Squares (PLS) are presented.

Chapter Six provides a comprehensive discussion of the research findings in terms of the proposed model and also in comparative terms across different ISR marketing strategies and education sectors. From this discussion, a number of practical and theoretical implications are presented along with limitations of the study and recommendations for future research. The final section of the thesis includes appendices and references.

1.7 Delimitations

The delimitations of this study are presented to establish the research boundaries for this study (Creswell, 2003). Firstly, this study investigated ISR marketing strategies in only two education sectors, university and secondary school. Therefore, it could be argued that the application of the findings beyond these education sectors may be problematic. However, these two sectors were specifically selected because of many observed similarities in ISR processes (refer Section 3.6). Although, it is
acknowledged that the university international education sector is larger and more developed than the secondary school international education sector.

Secondly, data were only collected in Australia and, therefore, the application of the findings beyond this specific geographical region must be carefully considered. Thirdly, this study sought the opinions of international education marketers who were actively involved in the recruitment processes undertaken to enrol international students. At the time of data collection, all respondents were employed in either the secondary school or university education systems. As such, the level of measurement for this study is the institution as respondents were asked to respond regarding the beliefs and operating processes within their own institution and results are presented in terms of the institution. Fourthly, this study gathers data through a self-reported survey and, as such, the issue of common method variance must be carefully considered for possible effects on the structural model (Kline, Sulsky, & Rever-Moriyama, 2000; Podsakoff & Organ, 1986). A post hoc procedure is used in Chapter 5, Section 5.5 to address the possibility of common method variance in this study.

Lastly, as is the case with all data collected via a sample, care must be taken when extrapolating the results to a larger population. The delimitations of this study are presented here to acknowledge the explicit boundaries of the research. They do not in anyway mar, or render less, the significance of the findings of this study.

1.8 Conclusion
This chapter has provided the foundations for this thesis. Firstly, the research topic was introduced and the key issues within the international education and marketing literatures were identified. Research objectives for the study were then discussed, leading to the presentation of the proposed Strategic Orientation Performance (SOP) Model which is used as the basis for hypothesis development. Definitions of key terms and constructs were presented, followed by a discussion of the justification for this study. The proposed methodology was briefly outlined and substantiated. The concluding sections of the chapter presented the thesis outline as well as the delimitations of the study. Chapter Two will present relevant literature pertaining to the marketing of international education.
Chapter Two

Literature Review

The only real voyage of discovery consists not in seeing new landscapes, but in having new eyes, in seeing the universe with the eyes of another, of hundreds of others, in seeing the hundreds of universes that each of them sees.

Marcel Proust

2.1 Introduction
This chapter investigates and discusses literature relating to the marketing of international education. International education has been compared with other globally marketed services (Cambridge, 2002) yet is often investigated from the disciplines of psychology, education, and economics (Smart & Ang, 1992). This chapter will address this imbalance through an investigation of international education from the discipline of marketing. The chapter commences with an investigation of international education and international student recruitment literature from the perspectives of globalisation and internationalisation, government and other organisations, international students, and educational institutions. Following this, marketing literature including market orientation, learning orientation and marketing strategy typologies is considered. The purpose of this literature review is to develop an understanding of the nature and extent of research that has previously been undertaken in order to better understand areas requiring further investigation and, in due course, to consider ways in which this may be undertaken.

2.2 International Students and International Student Recruitment
Several researchers have undertaken to classify the literature relating to international students. An annotated bibliography was produced by Smart and Ang (1992) providing an alphabetised list of items in addition to several short sections concerning competitors, market intelligence and student welfare. An annotated bibliography by
Andressen (1992) undertakes a more extensive categorisation of the international education literature by presenting a number of broad literature categories as seen in Table 2.1.

Table 2.1  International Education Literature Categories

- Statistical Sources
- Political/Economic Factors and Policies Concerning Overseas Students
- Marketing of Educational Services
- Education as Foreign Aid
- Adjustment Difficulties of Overseas Students

(Andressen, 1992, p. 5)

Since the annotated bibliography of international education by Andressen (1992), significant changes have occurred in the international education landscape and these are reflected in the organisation of the current literature review. In Australia, and other countries, international education has progressively moved away from the notion of foreign aid and moved towards education as foreign trade (Auletta, 2000). This is reflected in a shift in many foreign aid programs from a focus on funding students to travel to study in host countries, to a primary focus on the development and support of educational programs in aid receiving countries (Australian Agency for International Development (AusAID), 1996). In acknowledging the development of globalisation and internationalisation as a significant motivator in the expansion of international education (International Association of Universities, 1998), the focus adopted for this study is that of international education as foreign trade.

The relationship between the annotated bibliography of Andressen (1992) and the current literature review can be seen in Figure 2.1 and this forms the basis for a comprehensive coverage of the current literature. Literature belonging to each category, delineated in bold, will be investigated commencing with an investigation of globalisation and internationalisation.
2.2.1 Globalisation and Internationalisation

The concepts of globalisation and internationalisation have been the subject of considerable research, discussion, and debate in recent years (Altbach, 2004; Crowther et al., 2000; Harman, 2004; Marginson, 2004; Mazzarol et al., 2003; Ogrizek, 2002; Sanderson, 2004). Callinicos (2001) states that globalisation “is a reality” (p.19), while Altbach (2004) suggests that globalisation cannot be avoided. Waters (1995) defines globalisation as “a social process in which the constraints of geography on social and cultural arrangements recede and in which people become increasingly aware that they are receding” (p.3). The theme of “process” is also considered by Marginson and Rhoades (2002) who define globalisation as “the development of increasingly integrated systems and relationships beyond the nation” (p.288). In addition to “process”, the suggestion of a sense of movement or power regarding globalisation is evident in the literature. Marginson (2004) refers to globalisation as “speeding up” (p.176), while Jones (1998) refers to the “force” of globalisation (p.144).
Debate remains as to the fundamental themes regarding globalisation and the education sector (Cummings, 2001). Altbach (2004) defines educational globalisation as the “broad economic, technological, and scientific trends that directly affect higher education” (p.3). On the other hand, Mazzarol et al. (2003) suggest the existence of three distinct phases of globalisation within the international education industry. Phase one involves students travelling across national boundaries for the purpose of study. Phase two involves the development of an offshore presence in the form of twinning programs, while, in phase three, an institution establishes a dedicated campus in another country (Mazzarol et al., 2003).

Although globalisation is considered to be a powerful, but largely uncontrolled, force, internationalisation is considered to be a conscious reaction or a response (Crowther et al., 2000; Harman, 2004). Knight (1997) defines internationalisation as the “process of integrating international or inter-cultural dimensions into the teaching, research and service functions of higher education institutions” (p.6). In contrast to the integrative position taken by Knight, Altbach (2004) considers internationalisation to be the development of coping mechanisms and the development of the abilities necessary to exploit globalisation. There is consensus, however, on the notion that internationalisation implies a conscious action linked with a certain degree of initiative (Altbach, 2004; Knight, 1997).

Harman (2004) highlights the fact that internationalisation literature often fails to consider the export of educational services but that the areas of curricula, movement between countries, international research links and recognition of higher education qualifications feature more prominently. The policy statement issued by the International Association of Universities (IAU) appears to address this perceived omission in that it finds that higher education must become more internationalised and must integrate international and intercultural dimensions into its teaching, research and service functions (International Association of Universities, 1998). This statement supports the previously discussed integrative position taken by Knight (1997).

Several researchers consider the impact of globalisation and internationalisation on the education sector. Investigating Canadian institutions, Levin (1999) argues that
while economic necessity is a primary globalisation driver, the connection with institutions and students from other countries and cultures provides a sense of greater global understanding for Canadian educators and students. The economic necessity observed by Levin (1999) is also observed by Matthews and Sidhu (2005) who find economic imperatives to be the main driver of globalisation within Australian government secondary schools. Despite this observation, Meiras (2004) suggests that globalisation and internationalisation compel an institution to consider its “functions, character and cultural issues” (p.377). The impact of globalisation on the education sector within emerging economies is discussed by Enders (2004) who highlights the difficulty such countries experience in simultaneously expanding their education systems, redefining the system’s role within their regional context, and confronting the impact of global forces.

Although internationalisation is investigated from a university context, there is little evidence that it has been considered from a secondary school context. In a longitudinal study, McInnis, Peacock and Catherwood (2006) find that, in the context of New Zealand tertiary institutions, over time the commitment to internationalisation has become broader and deeper. Different models of internationalisation are found to exist within the university context (Chan & Dimmock, 2008) and it is argued that these models may be influenced by the degree of importance placed on internationalisation (Wu & Yu, 2006), or the strategic focus of an institution (Elkin et al., 2008).

An understanding of globalisation and internationalisation is important in the recruitment of international students in that it may provide educational institutions with an understanding of the forces motivating students to travel for education. Whereas globalisation is considered to be a largely uncontrolled process (Crowther et al., 2000), internationalisation is considered to be an institutional response to globalisation or the ability to exploit the mechanisms of globalisation (Altbach, 2004). Educational marketers who develop an understanding of globalisation should consider the importance of addressing the mechanisms of globalisation and addressing the needs of the prospective international students. As well, educational institutions may recognise the fact that international students travel from many countries and
backgrounds and design educational programs to address the needs of an increasingly global student body.

As previously discussed, economic imperatives appear to be the primary motivating force for globalisation within the education sector. Consequently, much of the work and direction of governments and other organisations appear largely focussed on supporting and sustaining this motivating force.

2.2.2 Governments and Other Organisations
Some countries have promulgated legislative frameworks that state the legal obligations concerning all activities involving the recruitment of overseas students by educational institutions. For example, within Australia educational institutions enrolling international students are required to comply with the Education Services for Overseas Students Act 2000, and the Education Services for Overseas Students Regulations 2001. The purpose of such legislation is to ensure consistency across education providers and to protect the rights of international students entering countries for the purposes of education.

In addition to the legislative frameworks, governments and other organisations produce a wide variety of statistical information regarding international student enrolment, visa statistics and economic benefits. For example, Australian Education International (AEI) produces statistical information regarding international student enrolments by education sector and country of origin (AEI, 2007a). Similar types of information are produced within other countries (e.g., Catherwood & Taylor, 2005; New Zealand Ministry of Education, 2008; Witherell et al., 2007). Global statistics comparing foreign students by host country and country of origin are provided by UNESCO (UNESCO, 2006), however UNESCO only measures international student statistical information for the university sector.

The university sector also features prominently in studies which explore and analyse the competitive position and economic indicators of specific international education industries (e.g., AEI, 2004; AEI & IDP Education Australia, 2002; Bohm, Meares, & Pearce, 2003; Western et al., 2005). For example, Kenyon and Koshy (2003) measure the economic benefit and sectoral growth of Australian university and secondary
school sectors. Growth within the university sector is found to be considerably greater than the school sector which is described as being “in a nascent stage of development” (Kenyon & Koshy, 2003, p.63).

Additionally, governments and other organisations produce macro-strategic positioning documents in relation to international education. For example, the International Division of the New Zealand Ministry of Education has produced a document in which both short and long term strategic priorities, as well as key themes for the development of international education in New Zealand, are discussed (New Zealand Ministry of Education, 2007). In an attempt to develop international engagement by the secondary school sector, the Australian Government released a strategic framework in which key objectives and strategic directions for the sector are promoted (AEI, 2008d).

At a more local level, individual Australian states have also produced their own strategic positioning documents for their respective international education industries (e.g., Department of Education and Training, 2004; Tasmania Parliament Legislative Council Select Committee on International Students, 2003). At an individual state level, these documents investigate the current international education system and, then, drawing on the service constructs of value and service quality, propose strategies to further develop the market at a state level.

Despite all available data and market research, as well as the various positioning documents, there remains a lack of understanding as to how international student recruitment occurs, which variables influence performance outcomes across different education sectors and how these variables interact with each other. Information tends to be pushed through to educational institutions often without the disseminating authorities gleaning an understanding of how it is used. An impetus for the current study is largely derived from this lack of knowledge. Although little is understood about international education performance outcomes, some investigation has been undertaken in the areas of international student perception and choice.
2.2.3 International Students

The body of literature with an international student focus can be divided into two subcategories: international student choice and international student perception. Each is investigated separately.

2.2.3.1 International Student Choice

Drawing on the construct of decision-making, studies regarding international student choice of educational institutions focus predominantly on the questions of why and how international students choose to study in a particular country and may focus on students from one (Joseph & Joseph, 2000; Mazzarol, Soutar, Smart, & Choo, 2001; Pimpa, 2003) or several countries (AEI, 2003; Lawley, 1998; Mazzarol & Soutar, 2002). To date only one study has been identified as generalising its findings across all international education sectors (Forbes & Hamilton, 2004). The majority of studies focus predominantly on the university sector (Lawley, 1998; Pimpa, 2003) although some studies also include the secondary school sector (AEI, 2003; Mazzarol & Soutar, 2002; Mazzarol et al., 2001). Of the latter group of studies some draw general conclusions for all sectors without undertaking sectoral analysis (AEI, 2003) or do not provide the data regarding the sectoral composition of the sample (Mazzarol & Soutar, 2002).

There exists general consensus that decisions relating to choice of destination country are based on a combination of factors sometimes described as push-pull factors (Cubillo, Sanchez, & Cervino, 2006; Mazzarol & Soutar, 2002; Pimpa, 2003). AEI (2003) determined the two main reasons for choosing Australia as a destination country for study to be that Australia is an English speaking country and the high quality of Australian education. Perceived education quality and opportunities to improve English language ability also rate highly in studies investigating international student choices (e.g., British Council, 2006; Cubillo et al., 2006; Naidoo, 2007), as well as increased potential employment prospects resulting from the international education experience (Chen & Zimitat, 2006). While the attraction of studying in an English speaking country was not measured by Lawley (1998) or Joseph and Joseph (2000) and is not listed as a factor by Forbes and Hamilton (2004), each of these studies consider education quality to be one of the primary determinants of destination country.
AEI (2003) report that social aspects (family and friends) and education agents are most important in influencing a student’s decision of destination country. This is contrary to the findings of Mazzarol and Soutar (2002), Mazzarol et al. (2001) and Lawley (1998) who find education agents to be an influence, but not a significant determining factor in the choice of destination country. In addition, Chen and Zimitat (2006) find that international students apply different choice variables for different countries. For example, Taiwanese students are found to be most influenced by social aspects when choosing to study in the USA and individual beliefs about outcome perceptions when choosing to study in Australia (Chen & Zimitat, 2006). The AEI (2003) findings are also contrary to Joseph and Joseph (2000) who find peer and family influences not to be a primary significant determining factor in the case of Indonesian students.

This section considers factors influencing international student choice of destination country and institution. The following section investigates international student perception after they have commenced at an institution.

2.2.3.2 International Student Perception

Drawing mainly on the service quality and customer expectations literatures, the student perception literature is largely concerned with measuring the perceived quality of education programs. This is done by investigating the potential gap between the degree of student expectation and student satisfaction with various aspects of a student’s international education experience. A classification of studies may be made regarding studies that examine student perceptions of an entire education experience (e.g., AEI, 2002; Binsardi & Ekwulugo, 2003; Carr, McKay, & Rugimbana, 1999) and those that examine perceptions of a specific institution or course (e.g., Ford, Joseph, & Joseph, 1999; Ham & Hayduk, 2003; Russell, 2006; Voss, Gruber, & Szmigin, 2007). Students tend to rank factors such as institutional facilities and standard of education delivery as most significant in the determination of quality (Gatfield et al., 1999; Voss et al., 2007), although Russell (2006) found international students to be more concerned with successful course completion as the pre-eminent determination of quality.
The methodology involved in measuring international student perceptions of quality is by no means standardised and this can make it difficult to make comparisons across studies. Several studies use the SERVQUAL instrument (Parasuraman, Zeithaml, & Berry, 1988), or an adaptation of the instrument, to measure the construct of quality (Gatfield et al., 1999; Ham & Hayduk, 2003; Prugsamatz & Pentecost, 2006; Sahney, Banwet, & Karunes, 2004). Other studies use a mass industry service template (Long, Tricker, Rangecroft, & Gilroy, 1999), a Students’ Evaluation of Educational Quality instrument (Guolla, 1999) and an importance/performance paradigm (Ford et al., 1999).

Studies investigating student perceptions of quality tend to be largely based on the university sector. Apart from the single AEI (2002) study, in which it was found that students were satisfied with the quality of education received, the perceptions of international students attending secondary school appear to not have received little attention.

In addition to literature exploring aspects of international education from the student’s perspective, another body of literature explores international education from the institutional perspective.

2.2.4 Educational Institutions
A small body of empirical marketing literature exists pertaining to educational institutions (e.g., Mazzarol & Hosie, 1996; Mazzarol & Soutar, 1999; Pokarier & Ridings, 1998). For the purposes of the present study the institutional literature will be divided into the areas of university focus, secondary school focus and cross-sector focus.

2.2.4.1 Institutional Focus - University
Demonstrating concern regarding the co-existence of academic and commercial elements within a university (Brookes, 2003), studies, with a university focus, also investigate strategies for achieving competitive advantage (e.g., Conway, Mackay, & Yorke, 1994; Mazzarol & Hosie, 1996; Mazzarol & Soutar, 1999; Naude & Ivy, 1999; Pokarier & Ridings, 1998). Pokarier and Ridings (1998), commenting on the poor standard of strategic planning in most universities regarding international student
recruitment, suggest that universities continue to overlook the fact that international students already attending an educational institution represent an excellent source of market information for future recruitment strategic planning.

The situation faced by Australian universities, active in recruiting international students, is examined by Mazzarol and Hosie (1996). By considering global, as well as Australian trends, Mazzarol and Hosie (1996) conclude that the global international student market is reaching maturity. This view appears contradictory to Asteris (2006) and Smith and Rae (2006) who suggest that the international student market remains in a growth phase in the United Kingdom and New Zealand respectively.

Several researchers suggest that universities involved in international education require a greater focus on branding, particularly differentiation and segmentation, in order to project an image of perceived value to the market (Gray, Fam, & Llanes, 2003; Hemsley-Brown & Goonawardana, 2007; Mazzarol & Hosie, 1996). Strategies relating to the use of promotion, strategic alliances, information technology, and market entry are presented as potentially useful in achieving brand differentiation and segmentation.

Market orientation has become a recognised theme within the university sector marketing literature. Although this will be discussed in greater detail later in this chapter (refer Section 2.3.4) it is pertinent to, briefly, provide an overview of the literature here. Marketing orientation is considered from a number of different perspectives. Burrell (2008) argues the need for marketing orientation within the university sector while Wasmer and Bruner (1999) and Flavian and Lozano (2006) discuss antecedents of a market orientation in the university sector. Performance outcomes associated with market orientation are investigated by Caruana et al., (1998) and Hammond et al., (2006) with both studies empirically demonstrating a positive relationship between market orientation and performance in the university sector. Thus, it appears that market orientation is worthy of consideration and investigation in the education domain.
### 2.2.4.2 Institutional Focus - Secondary School

Marketing research specifically investigating the secondary school sector is a newly emerging research field and is represented by a small body of literature (e.g., Oplatka, 2002, 2006; Oplatka & Hemsley-Brown, 2004, 2007; Oplatka, Hemsley-Brown, & Foskett, 2002). The secondary school sector is yet to reach a consensus regarding a conceptualisation of marketing within the sector. As such, it is not particularly surprising that there is a paucity of research focussed specifically on international student recruitment and marketing within the secondary school sector. To date, no studies investigating marketing aspects of international education or international student recruitment, solely within a secondary school context, have been identified.

### 2.2.4.3 Institutional Focus – Cross Sector

Several research themes can be identified in the literature with a cross-sector focus. One research theme investigates the implementation of information technology in the recruitment of international students and the promotion of educational institutions (Gomes & Murphy, 2003; Murphy & Gomes, 2003). A second theme considers ways in which competitive advantage may be achieved across the international education sector through the identification of critical marketing variables (Mazzarol, 1998; Mazzarol & Soutar, 1999; Mazzarol & Soutar, 2008). A third theme explores the role of institutional factors on international student recruitment performance outcomes (Ross et al., 2007).

Following research conducted by Rust and Lemon (2001), in which email is argued to be a logical development of the information economy, and Strauss and Hill (2001) who find that organisations are increasingly making use of email for customer service, Murphy and Gomes (2003) investigate the use of email in the recruitment of international students. The results of the study highlight issues ranging from a lack of response to professionalism of reply and provide educational institutions with benchmarks for improving email marketing and online customer service.

The investigation of factors considered critical by educational institutions in the development of competitive advantage in international educational markets is represented by a small number of studies, (Mazzarol, 1998; Mazzarol, Hosie, & Jacobs, 1998; Mazzarol & Soutar, 1999, 2002). Drawing on marketing concepts of
competitive advantage (Bharadwaj, Varadarajan, & Fahy, 1993) and services marketing, as well as conducting focus groups with international education marketing practitioners from the university sector, Mazzarol (1998) identifies a series of variables as being critical in the recruitment of international students. Mazzarol (1998) presents a model of the process involved in achieving competitive advantage and undertakes to explain the strategic decision-making environment in which the education exporter operates and the outcome ideal to achieving a competitive advantage. The critical variables identified by Mazzarol (1998) can be seen in Table 2.2.

Table 2.2 Critical Marketing Variables

<table>
<thead>
<tr>
<th>Quality of reputation</th>
<th>Financial resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possession of international strategic alliances or coalitions</td>
<td>Ability to offer a broad range of courses and programs</td>
</tr>
<tr>
<td>Possession of offshore teaching programs, and recruiting offices</td>
<td>Effective use of information technology and technical superiority</td>
</tr>
<tr>
<td>Quality and expertise of staff</td>
<td>Advertising and promotion</td>
</tr>
<tr>
<td>Organisational culture</td>
<td>Use of private recruitment agents</td>
</tr>
<tr>
<td>Innovation</td>
<td>Use of government promotion agencies</td>
</tr>
<tr>
<td>Scale effects</td>
<td></td>
</tr>
</tbody>
</table>

Developed from Mazzarol (1998)

Exploring the role of institutional factors on international student recruitment performance outcomes, Ross et al. (2007) find both similarities and differences based on education sector. The four factors of institutional marketing department size, employee qualifications, international recruiting experience and institutional focus are considered with institutional focus providing an avenue of investigation in the current study.

2.2.5 Summary of International Education Literature

In this section, specific literature regarding international students and ISR marketing is investigated. Following an investigation of bibliographic models, specific literatures are investigated from the perspective of globalisation and internationalisation, government and other organisations, international students, and education institutions.

Globalisation is found to be a powerful, but largely uncontrolled, force while educational globalisation is argued to be the broad economic, technological, and
scientific trends that directly affect higher education (Altbach, 2004, p. 3). Internationalisation is found to be a conscious response to the force of globalisation. An understanding of globalisation and internationalisation trends and implications is considered to be important as it assists educational institutions in identifying the forces motivating international students to seek educational opportunities in other countries.

Many countries have developed legislative frameworks within which the international education industry operates. Additionally, government international divisions and other organisations supply a range of information including statistical data regarding international student enrolments, market share, economic indicators and strategic positioning. Despite the available information, there remains a lack of understanding as to how international student recruitment occurs, which variables influence performance outcomes across different education sectors and how these variables interact with each other.

Much of the literature investigating international students focuses on either student choice or student perception. Student choice investigates variables that influence the choice of a destination country while student perception is concerned with measuring the construct of quality. There exists general agreement that decisions relating to choice of destination country are based on a combination of factors sometimes described as push-pull factors (Cubillo et al., 2006; Mazzarol & Soutar, 2002; Pimpa, 2003). Language of instruction (AEI, 2003), perceived education quality and opportunities to improve English language (British Council, 2006; Cubillo et al., 2006; Naidoo, 2007) as well as improved employment opportunities are found to be important choice factors (Chen & Zimitat, 2006).

Family and friends are generally found to be the most influential in a student’s choice of destination country (AEI, 2003; Lawley, 1998; Mazzarol & Soutar, 2002; Mazzarol et al., 2001) although Joseph and Joseph (2000) find this not be the case regarding Indonesian students. Education agents were found to be very influential by AEI (2003) but were not found to be particularly influential in other studies (Lawley, 1998; Mazzarol & Soutar, 2002; Mazzarol et al., 2001).
Studies investigating international student perceptions are largely concerned with measuring the quality of education programs. Institution facilities and education delivery appear to be most important in determining quality (Gatfield et al., 1999; Voss et al., 2007) although Russell (2006) found successful course completion to be the primary determinant. It remains unclear as to whether international student perceptions change over time (Gatfield et al., 1999; Patterson, Romm, & Hill, 1998) or which factors influence any potential change. Existing international student perception studies appear to be very strongly based in the university sector, to the detriment of other education sectors.

Finally, a small body of empirical marketing literature pertaining to educational institutions is found, with the existing literature displaying mainly a university focus. No empirical studies with a secondary school focus are apparent. Studies with a cross-sector focus tend to investigate the themes of information technology in recruitment (Gomes & Murphy, 2003; Murphy & Gomes, 2003), competitive advantage through critical marketing variables (Mazzarol, 1998; Mazzarol & Soutar, 1999; Mazzarol & Soutar, 2008) and the relationship between institutional factors recruitment performance outcomes (Ross et al., 2007).

A small body of research considers market orientation within educational institutions. Oplatka and Hemsley-Brown (2007) argue that market orientation has been largely neglected in the educational marketing research genre, and call for this to be redressed in future research projects. Consequently the following section of this literature review will investigate market orientation.

2.3 Market Orientation

Market orientation has been of considerable interest to many marketing researchers. Griffiths and Grover (1998) consider the construct to be based around two perspectives, one cultural (Narver & Slater, 1990) and the other behavioural (Kohli & Jaworski, 1990). These two perspectives have provided the theoretical underpinning for the majority of all market orientation research. Within these perspectives, research into market orientation has investigated the conceptualisation and delimitation of the construct (e.g. Gainer & Padanyi, 2005; Helfert, Ritter, & Walter, 2002; Kohli & Jaworski, 1990; Narver & Slater, 1990) and antecedents and
consequences of market orientation (e.g. Diamantopoulos & Hart, 1993; Ellis, 2006; Greenley, 1995b; Harris, 2001; Jaworski & Kohli, 1993) as well as the relationship with constructs such as innovation (e.g. Atuahene-Gima, 1996; Grinstein, 2008a; Han, Kim, & Srivastava, 1998). A small body of research has explored market orientation in the context of educational institutions (e.g. Caruana et al., 1998; Flavian & Lozano, 2006; Oplatka & Hemsley-Brown, 2007). In the following sections each of these categories are explored in greater detail, commencing with the conceptualisation of market orientation.

2.3.1 Market Orientation Conceptualisation
The marketing concept has been described as the fundamental cornerstone of the marketing discipline (Kohli & Jaworski, 1990; Kotler, 1994), yet this concept has often been regarded more as a philosophical tenet than a practical construct (Day, 1994). The term market orientation was devised to reflect the practical implementation of the marketing concept (Kohli & Jaworski, 1990) and, therefore, “a market-oriented organization is one whose actions are consistent with the marketing concept” (p. 1).

Although consensus has yet to be reached regarding the precise definition of market orientation (Dreher, 1994; Gainer & Padanyi, 2005; Pitt, Caruana, & Berthon, 1996), the construct has been conceptualised as a “multi-dimensional organizational phenomenon” (Greenley, 1995a, p. 47) that reflects the imperative for an organisation to be market-focused (Lafferty & Hult, 2001). Two dominant conceptualisations exist within the marketing literature; one based around behaviour resulting from an organisational culture (Narver & Slater, 1990) and the other around an organisational process and response (Kohli & Jaworski, 1990).

Reflecting these differing conceptualisations, Narver and Slater (1990) define market orientation as,

the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business (p. 21).
while Kohli and Jaworski (1990) contend that market orientation is,

*the organization wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization wide responsiveness to it* (p. 6).

Several researchers have attempted to extend the conceptualisation of market orientation. Helfert et al. (2002) expanded the conceptualisation to incorporate an aspect of inter-organisational relationships after empirically finding an interaction between market orientation and organisational relationships. Cadogan and Diamantopoulos (1995) attempted to integrate the two dominant market orientation conceptualisations as well as extending the generalisability of the construct by incorporating a dimension of internationalisation.

As much of the developmental stages of the market orientation construct was undertaken in the tangible goods sector, a number of researchers have explored the applicability of the conceptualisation in the services sector (e.g., Cadogan, Sundqvist, Salminen, & Puumalainen, 2002; Helfert et al., 2002). In fact, following a review of market orientation research in the context of services, Esteban, Millan, Molina, and Martin-Consuegra (2002) found that “to be market-oriented improves the results of service enterprises” (p. 1016).

More recently, a small number of studies have explored the conceptualisation of market orientation within the context of non-profit services (e.g., Gainer & Padanyi, 2005; Vazquez, Alvarez, & Santos, 2002). Findings from these studies support earlier conceptualisations of market orientation and indicate the importance of a market orientation for non-profit services. A large body of research has attempted to develop a more thorough understanding of market orientation by taking a “top and tail” approach and investigating the antecedents and consequences of market orientation. This body of research is the focus of the ensuing discussion.

### 2.3.2 Antecedents of Market Orientation

The antecedents of market orientation include *senior management factors, interdepartmental dynamics and organisational features and structure* (Jaworski &

A variety of interdepartmental dynamics have been suggested as antecedents to the development of a market orientation and pre-eminent among these is *interdepartmental conflict* (Jaworski & Kohli, 1993). Interdepartmental conflict may arise as a result of differing departmental goals and priorities within an organisation (Jaworski & Kohli, 1993; Kirca et al., 2005). This may obstruct the development of an organisational market orientation (Lusch, Udell, & Laczniak, 1976) by potentially decreasing inter-department communication (Ruekert & Walker, 1987) due to increased interdepartmental tension (Jaworski & Kohli, 1993).

A second interdepartmental dynamic, *connectedness*, refers to the nature of contacts, both formal and informal, made by employees across different departments within an organisation. A positive relationship is suggested between greater numbers of employee contacts and increased levels of intelligence sharing (Deshpande & Zaltman, 1982) although Henard and Szymanski (2001) warn that there is a point beyond which the number of contacts becomes too great to maintain and this may result in a reduction in intelligence sharing. Developing an optimum level of employee contacts, which result in effective intelligence sharing among employees, may enhance the market orientation of an organisation (Kennedy, Goolsby, & Arnould, 2003).

When investigating organisational features as an antecedent to a market orientation, researchers find a positive relationship between the *size of an organisation* and the
extent of market orientation (Liu, 1995; McNamara, 1972; Ross et al., 2007). The adoption of a market orientation also requires a receptive organisational culture (Dunn, Norburn, & Birley, 1994; Gounaris & Avlonitis, 2001) and may be aided by a degree of entrepreneurialism (Miles & Arnold, 1991; Morris & Paul, 1987).

In a similar way, organisational structural features such as centralisation and formalisation have been investigated as antecedents to an organisational market orientation. Centralisation refers to the extent to which decision-making authority is centrally located rather than being delegated. Matsuno, Mentzer and Ozsche (2002) consider this structural feature to provide employees with little incentive to share information and, therefore, may negatively impact on the development of a market orientation (Kirca et al., 2005). Formalisation refers to the procedures, rules and authority roles within an organisation (Jaworski & Kohli, 1993). As such, formalisation is mostly considered to impact negatively on market orientation (Deshpande & Zaltman, 1982; Kirca et al., 2005) although Jaworski and Kohli (1993) find no relationship between formalisation and market orientation.

A small body of research investigates external market orientation antecedents. For example, the development of a market orientation is influenced by macro-environment factors such as political climate (Selnes, Jaworski, & Kohli, 1996), national and global economic strength (Greenley, 1995a) and prevailing national culture (Mason & Harris, 2006). Other researchers have identified micro-environment factors such as market type (McNamara, 1972) or supply chain position (Mason & Harris, 2006) as influencing market orientation. Although environmental turbulence is often considered to moderate the relationship between market orientation and performance (e.g., Gray et al., 1999; Jaworski & Kohli, 1993), Davis, Morris and Allen (1991) argue this to be an antecedent variable as a manager may seek to implement a market orientation as a means of responding to environmental turbulence (Cervera et al., 2001).

In addition to literature regarding market orientation antecedents, a large body of research discusses the consequences of market orientation and this is addressed in the following section.
2.3.3 Consequences of Market Orientation

The majority of research investigating the consequences of a market orientation considers the constructs of innovation, or innovativeness, and organisational performance. As such, these constructs are further discussed.

2.3.3.1 Innovativeness as a Consequence of Market Orientation

The constructs innovation and innovativeness sometimes appear to be interchangeable within the literature (Han et al., 1998; Lee & Tsai, 2005). Innovation is concerned with new developments of either a product or administrative nature (Damanpour, 1991) and is mostly measured as an outcome (Menguc & Auh, 2006). Innovativeness, however, involves the degree to which an organisation is receptive to new ideas as well as its capacity to innovate (Hurley & Hult, 1998). As such, innovation and innovativeness are fundamentally different constructs. In the context of the current study it is the capacity to innovate that is of interest rather than the extent of innovation that has occurred. Therefore, the construct of innovativeness, rather than innovation, is investigated in this study and the relationship between market orientation and innovativeness is considered.

The relationship between innovativeness and organisational performance has been well discussed and demonstrated (Hult, Hurley, & Knight, 2004; Hult & Ketchen, 2001). It is generally supported that organisations with a higher degree of innovativeness have the capacity to achieve a competitive advantage (Hurley & Hult, 1998; Kropp, Lindsay, & Shoham, 2006) and, consequently, a higher level of performance (Calantone, Cavusgil, & Zhao, 2002; Deshpande, Farley, & Webster, 1993; Montoya-Weiss & Calantone, 1994; Rogers, 2003). The relationship between innovativeness and market orientation, however, has been less rigorously investigated (Han et al., 1998; Rapp, Schillewaert, & Hao, 2008). However, Jaworski and Kohli (1993) argue that,

"a market orientation essentially involves doing something new or different in response to market conditions, it may be viewed as a form of innovative behavior (p. 56)."
As such, it may be suggested that a market orientation encourages the development of innovativeness within an organisation (Hult et al., 2004; Jaworski & Kohli, 1996) and that a greater market orientation leads to a greater degree of innovativeness (Agarwal, Erramilli, & Dev, 2003; Rapp et al., 2008). A counter argument, however, suggests that a market orientation may potentially reduce innovativeness by encouraging an organisation to focus on the customer (Atuahene-Gima, 1996), rather than encouraging the development of innovative solutions (Jaworski & Kohli, 1996). A third argument posits that no relationship exists between market orientation and innovativeness (Lawton & Parasuraman, 1980). As empirical findings in this area are inconclusive, clearly further investigation of this relationship is required. Similarly, differences are found within the literature regarding the relationship between market orientation and organisational performance and these are considered next.

2.3.3.2 Organisational Performance as a Consequence of Market Orientation

The relationship between market orientation and organisational performance has been the subject of considerable research (e.g., Ellis, 2006; Rodriguez Cano, Carrilat, & Jaramillo, 2004). Noted by Narver and Slater (1990) and Kohli and Jaworski (1990), and, subsequently, endorsed by many researchers, the positive and significant relationship between market orientation and performance is argued as being robust in a variety of contexts and across a variety of countries (Deshpande & Farley, 1998). The fundamental premise of this relationship is that the strength of an organisation’s market orientation has a positive impact on the organisation’s performance outcomes (Jaworski & Kohli, 1993; Narver & Slater, 1990). In other words, organisations with a stronger market orientation will perform better than organisations with a weaker market orientation.

Factors which may potentially moderate the market orientation and organisational performance relationship were identified by Kohli and Jaworski (1990), however, subsequent empirical testing failed to find evidence of these factors in practice (Kohli & Jaworski, 1990; Narver & Slater, 1990). Despite the absence of findings, many researchers have investigated these, and other factors, which may potentially moderate or mediate the market orientation and organisational performance relationship (Baker & Sinkula, 1999b). For example, both Han et al. (1998) and Matear, Osborne, Garrett and Gray (2002) find that innovation mediates this
relationship. Other researchers (e.g., Ellis, 2006; Jaworski & Kohli, 1993; Kumar, Subramanian, & Yauger, 1998; Pitt et al., 1996; Pulendran, Speed, & Widing, 2003) have found the relationship to be moderated by environmental factors such as market turbulence, technological turbulence, competitive intensity and market growth.

However, not all researchers agree on the strength of the relationship or even about the existence of the market orientation-performance relationship (e.g., Langerak, 2003; Shoham & Rose, 2001). Atuahene-Gima (1996) argues that there is no rational reason that indicates the existence of a direct relationship between market orientation and organisational performance. Several researchers find a lesser degree of support for a direct relationship in service organisations (e.g., Caruana, Pitt, & Berthon, 1999; Han et al., 1998; Matear et al., 2002; Sargeant & Mohamad, 1999). Mixed results for the existence of a market orientation-performance relationship are noted by Jaworski and Kohli (1993), who find differences when using judgemental and objective performance measures, and also by Diamantopoulos and Hart (1993). Han et al. (1998) find the market orientation-organisational performance to be positive but non-significant while no direct relationship between market orientation and organisational performance is found by Bhuian (1997), Greenley (1995b) or Langerak, Hultink and Robben (2004).

From the preceding discussion it is apparent that the relationship between market orientation and organisational performance has not yet been fully explored and/or fully supported. As the education sector provides the context for the current study, it is appropriate to investigate literature in which market orientation is considered.

2.3.4 Market Orientation and Education

The body of literature in which market orientation is explored in the context of the education sector is small and almost exclusively based around the university sector. No studies have been identified in which the international student recruitment activities of educational institutions are examined in the context of the market orientation. Exploring the notion of quality in higher education, Owlia and Aspinwall (1996) found market orientation to be a way in which to link institutional objectives with the needs of students and employers, primarily because it forces the institution to focus on customer identification. While this idea is supported by Lindsay and
Rodgers (1998), they argue that, in reality, higher education institutions in the United Kingdom have tended to adopt a sales orientation rather than a market orientation. As such, the development and implementation of a market orientation has been fundamentally misconstrued by these educational institutions (Lindsay & Rodgers, 1998).

Antecedents of market orientation within the university sector have been investigated by Wasmer and Bruner (1999) and Flavian and Lozano (2006), albeit from differing perspectives. Wasmer and Bruner (1999) found a strong positive correlation between the degree of market orientation within an institution and institution size and level of innovativeness. Additionally, a weak positive correlation was found to exist between market orientation and the nature of institutional funding with private institutions displaying a slighter higher degree of market orientation than public institutions. In contrast to the macro-level constructs investigated by Wasmer and Bruner (1999), Flavian and Lozano (2006) investigated market orientation from an internal organisational perspective. Market orientation was found to be positively influenced by departmental emphasis and prestige, as well as cohesion between teaching staff.

Similar to the small number of studies investigating antecedents to market orientation in education institutions, the relationship between market orientation and performance in educational institutions is also represented by a very small number of studies (e.g. Caruana et al., 1998; Hammond et al., 2006). In both studies a strong positive relationship was found to exist between market orientation and performance in the university sector.

Within the secondary school sector, no studies investigating market orientation have been identified to date. Recently, however, Oplatka and Hemsley-Brown (2007) have discussed the importance of developing a market orientation in the secondary school sector and have called for research investigating this relationship to be undertaken.

2.3.5 Summary of Market Orientation

Market orientation continues to be of considerable interest to marketing researchers. Although market orientation has been conceptualised as a “multi-dimensional organizational phenomenon” (Greenley, 1995a, p. 47), consensus is yet to be reached
regarding a precise definition. The dominant conceptualisations are based on behaviour resulting from an organisational culture (Narver & Slater, 1990) or an organisational process and response (Kohli & Jaworski, 1990).

A range of market orientation antecedents and consequences are presented and discussed. Antecedents of market orientation are found to include senior management factors, interdepartmental dynamics and organisational features and structure. Consequences of market orientation are found to be innovativeness and organisational performance. The relationship between innovativeness and market orientation is found to be inconclusive, with some researchers arguing that market orientation increases innovativeness (Hult et al., 2004; Jaworski & Kohli, 1996). Others argue that market orientation decreases innovativeness (Atuahene-Gima, 1996) while some argue that no relationship exists between the two constructs (Lawton & Parasuraman, 1980).

A considerable body of research investigates the relationship between market orientation and organisational performance. Despite claims of a robust relationship between these two constructs (Deshpande & Farley, 1998), Atuahene-Gima (1996) finds no compelling reason for the relationship to exist, mixed results are found by Jaworski and Kohli (1993) while other researchers find no direct relationship (Bhuian, 1997; Greenley, 1995b; Langerak et al., 2004).

A small, and almost exclusively university-based, body of literature explores market orientation within the education sector. No studies are identified in which international student recruitment is explored. Of the existing studies, a positive correlation was found between the extent of market orientation and institutional size and degree of innovativeness (Wasmer & Bruner, 1999). Caruana et al. (1998) and Hammond et al. (2006) noted a strong positive relationship between market orientation and institutional performance within the university sector. Despite researchers noting the importance of market orientation within the secondary school sector (Oplatka & Hemsley-Brown, 2007), no studies investigating market orientation within the secondary school sector are identified.
It is argued that, while a market orientation promotes organisational learning, this may not necessarily be higher order learning (Baker & Sinkula, 1999a, 1999b; Dickson, 1996). Day (1994), Slater and Narver (1995) and Baker and Sinkula (1999a, 1999b) suggest that organisations require a strong learning orientation in order to understand and best exploit the benefits of a market orientation. As such, learning orientation is considered next.

2.4 Learning Orientation

In contrast to the body of research exploring market orientation, investigations into learning orientation tend to be fewer in number. As for market orientation, investigations into learning orientation tend to focus on construct conceptualisation (e.g., Jaworski & Kohli, 1996; Sinkula et al., 1997; Slater & Narver, 1995), antecedents and consequences of a learning orientation (e.g., Baker & Sinkula, 1999a; Farrell, 1999; Fiol & Lyles, 1985) and relationships with other constructs such as innovation (e.g., Calantone et al., 2002; Hurley & Hult, 1998; Lee & Tsai, 2005). Investigations of learning orientation within educational contexts are scarce. Of the existing studies, those regarding secondary schools tend to take a holistic view of learning orientation (e.g., Giles & Hargreaves, 2006; Johnston & Caldwell, 2001) while studies based in universities tend to be more pedagogical in nature (e.g., Hoskins & van Hooff, 2005; Lonka, Olinkuora, & Makinen, 2004). In the following sections each of these categories will be explored in greater detail commencing with the conceptualisation of the learning orientation construct.

2.4.1 Learning Orientation Conceptualisation

Mavondo, Chimhanzi and Stewart (2005) argue that learning orientation is derived from organisational learning and a learning organisation, which, in turn, are drawn from disciplines such as psychology, sociology, organisational theory, marketing and strategic management. As these constructs are drawn from a variety of disciplines this increases the difficulty in achieving consensus regarding their definitions (Bell, Whitwell, & Lukas, 2002; Crossan, Lane, & White, 1999). As a result, conceptualisations of learning orientation are sometimes confusing and conflicting (Easterby-Smith, 1997).
Argyris and Schon (1978) argue that organisational learning is based around the notion of organisation-wide information sharing with one outcome being locating and rectifying errors. This conceptualisation is expanded by Fiol and Lyles (1985) who argue a positive correlation between improvements to organisational actions and increases in knowledge and understanding. Subsequent researchers (e.g., Garvin, 1993; Huber, 1991; Hult & Ketchen, 2001; Slater & Narver, 1995) focus on changes in organisational actions and behaviours, resulting from the implementation of new knowledge, as a fundamental aspect of organisational learning. Whereas conceptualisations of organisational learning tend to be process and outcome based, Pedler, Boydell and Burgoyne (1989) define a learning organisation as one in which organisational learning is facilitated for all organisational members. In other words, an organisation in which organisational learning is permitted and encouraged. Synthesising these conceptualisations of organisational learning and a learning organisation, learning orientation involves the process and outcomes of organisational learning derived from an embedded set of organisational values (Baker & Sinkula, 1999b; Garvin, 1993).

Sinkula et al. (1997) and Baker and Sinkula (1999a, 1999b) conceptualise learning orientation as a set of shared values that gives rise to commitment to learning, open-mindedness and shared vision. Commitment to learning refers to the underlying value with which learning is regarded (Sinkula et al., 1997) and promoted (Calantone et al., 2002) within an organisation. Norman (1985) and Sackmann (1991) suggest that organisational learning is unlikely to occur unless a degree of commitment to learning exists within an organisation. Open-mindedness refers to the degree with which organisations apply the knowledge gained through a commitment to learning to seek new and better ways of doing things (McGuinness & Morgan, 2005). Open-mindedness involves questioning previously held beliefs (Day, 1994) and, when necessary, unlearning these beliefs (Nystrom & Starbuck, 1984) in order for new and more relevant learning to occur. The third dimension of learning orientation, shared vision, refers to the extent to which learning and learning outcomes are communicated throughout an entire organisation (Sinkula et al., 1997). Without a shared vision employees exist in an ambiguous environment where it is difficult to understand organisational expectations, what to unlearn and what to learn (Sinkula et al., 1997; Verona, 1999).
The conceptualisation by Sinkula et al. (1997) and Baker and Sinkula (1999a, 1999b) is, subsequently, expanded by Calantone et al. (2002) who also incorporate the construct of *intra-organisational knowledge sharing*. Whereas shared vision refers to an organisation wide approach, intra-organisational knowledge sharing refers specifically to the collective learning, and subsequent information sharing, of functional units within an organisation (Moorman & Miner, 1998). Calantone et al. (2002) argue that intra-organisational knowledge sharing is particularly important in preventing organisational information loss due to employees leaving an organisation or transferring within an organisation (Lukas, Hult, & Ferrell, 1996).

Several researchers have considered the antecedents and outcomes of a learning orientation and these provide the basis for the ensuing discussion.

### 2.4.2 Antecedents of Learning Orientation

Antecedents of learning orientation may be categorised as being either internal or external to an organisation. Internal antecedent factors include *organisational culture, strategy and structure* (Fiol & Lyles, 1985), while external antecedent factors include the *external environment* in which an organisation operates (Slater & Narver, 1995). Schein (1990) defines organisational culture as,

>a pattern of basic assumptions, (b) invented, discovered, or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration (p. 111).

As such, it is argued that these basic assumptions will influence the learning orientation of an organisation (Fiol & Lyles, 1985) as well as what knowledge is learnt (Lemon & Sahota, 2004) and how it is interpreted (Day, 1994).

Organisational strategy may determine the learning orientation of an organisation by encouraging the development of particular organisational structures (Burgelman, 1983; Dodgson, 1993; Kjaergaard & Kautz, 2008) and by providing a framework for decision-making (Fiol & Lyles, 1985). In a similar manner, the structure of an organisation may also influence the learning orientation of an organisation (Fiol & Lyles, 1985) by providing a particular framework through which learning occurs. In
order to most effectively develop a learning orientation, Slater and Narver (1995) argue the need for an organic organisational structure. This supports both Fiol and Lyles (1985) who contend that,

\[
a \text{centralised, mechanistic structure tends to reinforce past behaviors, whereas an organic, more decentralized structure tends to allow shifts of beliefs and actions (p. 805)}
\]

and Meyer who argues that \textit{formalized and complex structures retard learning} (Meyer, 1982, p. 533). In a subsequent empirical investigation Farrell (1999) noticed a significant relationship between lower organisational centralisation and greater levels of learning orientation, however, this relationship was not found to exist in the case of formalisation and learning orientation.

As previously discussed, external environmental factors were found to moderate the relationship between market orientation and performance (e.g., Ellis, 2006; Jaworski & Kohli, 1993; Kumar et al., 1998; Pitt et al., 1996; Pulendran et al., 2003). In the case of learning orientation, however, \textit{external environmental factors} have been considered as antecedents (Farrell, 1999; Fiol & Lyles, 1985; Slater & Narver, 1995). Fiol and Lyles (1985) suggest that learning cannot occur if the external operating environment is too complex, while Slater and Narver (1995) suggest that a learning orientation helps organisations to learn and respond strategically to their environment. Farrell (1999) investigated environmental antecedents to learning orientation using the environmental variables \textit{market turbulence, competitive intensity and technological turbulence} as developed by Jaworski and Kohli (1993) in their investigation of market orientation. For learning orientation, no significant affect was found for either competitive intensity or technological turbulence. However, market turbulence was found to be a significant antecedent to learning orientation (Farrell, 1999). While the antecedents of learning orientation are considered by a relatively small body of researchers, a larger body of research investigates the consequences of a learning orientation.
2.4.3 Consequences of Learning Orientation

The majority of research investigating the consequences of a learning orientation considers the constructs of innovativeness, and organisational performance and, as such, these constructs are further discussed.

2.4.3.1 Innovativeness as a Consequence of Learning Orientation

As discussed previously (refer Section 2.3.3.1), the constructs of innovation and innovativeness often appear to be interchangeable within the literature (Han et al., 1998; Lee & Tsai, 2005). Whereas innovation is concerned with new product or administrative developments (Damanpour, 1991), innovativeness involves the degree to which an organisation is receptive to new ideas as well as its capacity to innovate (Hurley & Hult, 1998). The current study investigates the capacity to innovate rather than the extent of innovation that has occurred. Therefore, the construct of innovativeness, rather than innovation, and its relationship with learning orientation is considered.

A positive relationship between learning orientation and innovativeness has been demonstrated by numerous researchers across a variety of settings (e.g., Baker & Sinkula, 1999a; Calantone et al., 2002; Farrell, 1999; Hult et al., 2004; Hurley & Hult, 1998; Lee & Tsai, 2005). Argyris and Schon (1978) and Fiol and Lyles (1985) suggest that the fundamental underpinning of a learning orientation involves the notion of learning (Slocum, McGill, & Lei, 1994) which, by definition, implies the acquisition of innovative knowledge and behaviours (Hult et al., 2004; Lee & Tsai, 2005). For Baker and Sinkula (1999a), a learning orientation potentially provides an organisation with the knowledge and degree of innovativeness to predict what the market may become (p. 300). Lant and Montgomery (1987) suggest that this is due to the ability of learning-oriented organisations to understand and learn from the successes and failures of competitors and to channel this knowledge into the innovative capacity of the organisation (Calantone et al., 2002). Similarly, differences are found within the literature regarding the relationship between market orientation and organisational performance and these will be considered next.
2.4.3.2 Organisational Performance as a Consequence of Learning Orientation

There is strong evidence indicating the existence of a causal relationship between learning orientation and organisational performance (Baker & Sinkula, 1999a, 1999b; Calantone et al., 2002; Farrell, 2000; Kropp et al., 2006; Lee & Tsai, 2005).\(^1\) Grinstein (2008b) suggests that organisations with a strong learning orientation achieve higher levels of performance because,

> it leads firms to constantly question long-held assumptions about fundamental operating philosophies, examining firms’ “mental model” and “dominant logic” (p. 118).

The notion of learning orientation instigating continuous organisational activities, which result in increased organisational performance, is also considered by other researchers. Dickson (1996) suggests that a learning orientated organisation may potentially develop a sustainable competitive advantage because the organisation is continuously improving market-information processing activities faster than the competition (Noble, Sinha, & Kumar, 2002, p. 30). Bennett and O'Brien (1994) argue that a learning orientation requires an organisation to develop a continuous . . . capacity to learn, adapt and change its culture (Farrell, 2000, p. 208).

*Enhanced market sensing* is promoted as one of the primary reasons that organisations with a strong learning orientation achieve higher organisational performance than organisations without a strong learning orientation. Due to a greater learning capacity, learning oriented organisations are better able to sense market environment changes and undertake activities to reduce negative impacts from such changes (Calantone et al., 2002; Day, 1994; Webster, 1992). Baker and Sinkula (1999b) and Lumpkin and Lichtenstein (2005) argue that learning oriented organisations are better able to recognise future opportunities than organisations that are not learning oriented and to exploit these opportunities, thus realising higher organisational performance. Still other researchers argue that enhanced market sensing, resulting from a strong

\(^1\) However, these findings were largely apparent in first world economies and, contrary to evidence from the first world, Olavarrieta and Friedmann (2008) find no evidence of such a relationship in the non-first world context.
learning orientation, allows organisations to better understand and anticipate their customers’ needs, subsequently, resulting in higher levels of organisational performance (Mavondo et al., 2005; Slater & Narver, 1995).

Rather than considering learning orientation in isolation, several researchers consider learning orientation, market orientation and organisational performance as constructs within a larger system. Farrell and Oczkowski (2002) report that, despite the importance of a learning orientation, the relationship between learning orientation and organisational performance is weaker than that between market orientation and organisational performance. Baker and Sinkula (1999b) argue that organisations require both a learning orientation and a market orientation to achieve a competitive advantage and higher performance outcomes.

Learning orientation is largely considered to be important in achieving higher organisational performance outcomes. The body of research investigating learning orientation considers learning orientation from both an individual and synergistic perspective. Within the learning orientation research genre, a particularly small body of research considers learning orientation within the context of educational institutions.

2.4.4 Learning Orientation and Education

Literature investigating learning orientation within educational institutions is sparse. Rather than learning orientation, researchers in this genre tend to adopt learning organisation as a construct. However, it follows that a learning organisation requires a learning orientation in order to facilitate learning. Although studies investigating learning orientation are identified in both the secondary school sector and the university sector, these studies have not investigated student recruitment from a learning orientation perspective. In the case of the secondary school sector, researchers tend to consider both antecedents to the development of a learning orientation as well as ways to sustain learning orientation outcomes. For instance, Johnston and Caldwell (2001) and Lam and Pang (2003) argue the importance of management and leadership in developing a learning orientation culture within the secondary school sector. Giles and Hargreaves (2006) investigate an organizational
model which, if well implemented, may sustain the outcomes from a learning orientation within the secondary school sector.

The holistic approach of the secondary school sector is contrasted with the more specific approach adopted by the university sector in which learning orientation is considered from the perspective of educational pedagogy. Within this sector, researchers tend to focus on the learning orientation of students, rather than the development of a learning orientation within the entire sector. Student learning orientation is investigated in terms of learning outcomes achieved (Hoskins & van Hooff, 2005; Lonka et al., 2004), as well as student approaches towards learning (Heikkila & Lonka, 2006; Marsden, Carroll, & Neill, 2005).

Austin and Harkins (2008) argue in support of a learning orientation for education institutions, however, they find that the environments in which many institutions operate may impede the successful development of a learning orientation. Both Imants (2003) and Thomas and Allen (2006) argue that, currently, there is insufficient empirical support to determine whether educational institutions should attempt to develop a learning orientation or even to understand what potential organisational outcomes may occur as a result of implementing such an orientation. Further investigation of learning orientation within educational institutions is clearly warranted.

### 2.4.5 Summary of Learning Orientation

Learning orientation has been conceptualised from a variety of disciplines including psychology, sociology, organisational theory, marketing and strategic management (Mavondo et al., 2005) and, as such, the literature is sometimes confusing and conflicting (Easterby-Smith, 1997). Added to this complexity is the fact that there appears little consensus as to the use of the terms organisational learning, learning organisation and learning orientation. Sinkula et al. (1997) and Baker and Sinkula (1999a, 1999b) conceptualise that learning orientation comprises the dimensions commitment to learning, open-mindedness and shared vision. To this conceptualisation Calantone et al. (2002), subsequently, add intra-organisational knowledge sharing.
Antecedents to a learning orientation were found to be both internal, such as culture, strategy and structure (Fiol & Lyles, 1985) and external, such as the market environment (Slater & Narver, 1995). In particular, organisational structure is considered to provide a particular framework through which learning occurs. Several researchers argue that for the best development of a learning orientation, an organic organisational structure is required (Fiol & Lyles, 1985; Meyer, 1982; Slater & Narver, 1995). External antecedents, such as market environment, are found to hinder the development of a learning environment if the environment is too complex (Fiol & Lyles, 1985) or turbulent (Farrell, 1999).

Consequences of a learning orientation were found to be innovativeness and organisational performance. A considerable body of research has noted a positive relationship between learning orientation and innovativeness (e.g., Baker & Sinkula, 1999a; Hurley & Hult, 1998; Lee & Tsai, 2005). Baker and Sinkula (1999a) suggest this is because learning orientated organisations are better able to predict future market changes. Similarly, there is strong evidence to indicate a positive relationship between learning orientation and organisational performance. It is suggested that this is due to learning orientated organisations more successfully exploiting the potential opportunities they have identified as a result of learning orientation (Baker & Sinkula, 1999b; Lumpkin & Lichtenstein, 2005).

While some researchers argue the importance of developing a learning orientation within the education sector (Austin & Harkins, 2008), others argue that currently insufficient empirical evidence exists to determine whether a learning orientation would benefit educational institutions or even what potential outcomes may be achieved (Imants, 2003; Thomas & Allen, 2006). As such, further research investigating learning orientation within the context of the education sector is clearly warranted.

In an investigation of the education sector, Mazzarol and Soutar (2008) argue that for educational institutions the,
The preceding sections have explored market and learning orientation. Both orientations are argued to have positive relationships with innovativeness (e.g., Baker & Sinkula, 1999a; Jaworski & Kohli, 1996) and performance (e.g., Baker & Sinkula, 1999a, 1999b; Kohli & Jaworski, 1990; Narver & Slater, 1990) and, as such, provide a strong basis for investigation. In this study these constructs will be investigated across two frameworks, international education sectors and marketing strategy typologies. In both cases, little previous research appears to have been undertaken in which constructs such as market and learning orientation, innovativeness and performance have been investigated from the perspective of these frameworks. As international education, in the context of this study, has already been discussed, it is appropriate that the following section discusses marketing strategy typologies.

2.5 Marketing Strategy Typologies

There has been considerable investigation into the area of marketing strategies within organisations with the consensus being that clearly defined marketing strategies are very important in guiding organisations in achieving their objectives (Ward & Lewandowska, 2008). Researchers have argued for the existence of a relationship between strategy and organisational performance (e.g., Lee, Yoon, Kim, & Kang, 2006; Slater, Hult, & Olson, 2007; Slater & Olson, 2000; Vorhies & Morgan, 2003) as well as between strategy and market environment (Zajac & Shortell, 1989). Cravens (1998) argues the importance of both market orientation and learning orientation as a basis for strategy development within an organisation while Santos, Sanzo, Alvarez and Vazquez (2005) empirically demonstrate that market orientation conditions an organisation’s strategy.

A popular means of researching marketing strategy is through strategy typology frameworks (Speed, 1993; Thorpe & Morgan, 2007). Typologies are defendable homogenous groupings and, therefore, may assist in the generalisability of findings (Hempel, 1965). Additionally, typologies assist in understanding diversity within an organisation and can undertake a predictive function (Speed, 1993), as well as
providing a means of manipulating complex information (Mechanic, 1963). The following section explores marketing strategy through an investigation of specific marketing strategy typologies. Particular emphasis is placed on the generic competitive strategy typology developed by Porter (1980, 1985), the differentiation strategy typology (Mintzberg, 1991), the strategy typology developed by Miles and Snow (1978) and the value disciplines typology (Treacy & Wiersema, 1993).

2.5.1 Generic Competitive Strategy Typology
Porter (1980, 1985) identifies cost leadership, differentiation and focus as three generic strategies that may lead to above average performance in an organisation. Additionally, Porter (1980, 1985) identifies two variants within the focus strategy, cost focus and differentiation focus (refer Figure 2.2). Cost leadership involves an organisation becoming the price leader as the lowest cost producer within an industry (Porter, 1985). Differentiation involves an organisation achieving a degree of uniqueness in terms of product or service offering while focus involves the development of a niche market either through a cost of differentiation approach.

**Figure 2.2 Generic Strategies**

<table>
<thead>
<tr>
<th>Competitive scope</th>
<th>Lower cost</th>
<th>Competitive Advantage</th>
<th>Differentiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad target</td>
<td>1. Cost leadership</td>
<td>2. Differentiation</td>
<td></td>
</tr>
<tr>
<td>Narrow target</td>
<td>3a. Cost focus</td>
<td>3b. Differentiation focus</td>
<td></td>
</tr>
</tbody>
</table>

Porter (1985, p. 12)

2.5.2 Differentiation Strategy Typology
Mintzberg (1991) argues that cost leadership is a form of differentiation and, as such, does not constitute a competitive strategy in its own right. Mintzberg (1991) offers differentiation and scope as two possible marketing strategies, with similarities evident between Porter’s “focus” and Mintzberg’s “scope”.

Through the use of a differentiation strategy, an organisation seeks to distinguish itself and its services from competitors through one or more attributes. Six ways by which
an organisation may potentially achieve differentiation, as identified by Mintzberg (1991), can be seen in Table 2.3.

<table>
<thead>
<tr>
<th>Differentiation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price differentiation: Charge a lower price than competitors. Porter (1985) considers this to be cost leadership.</td>
</tr>
<tr>
<td>Image differentiation: Use of marketing and promotional aspects to portray an image difference although a difference may not possibly exist.</td>
</tr>
<tr>
<td>Support differentiation: Differentiate on the basis of support that accompanies the service.</td>
</tr>
<tr>
<td>Quality differentiation: Alter features of the service to gain improvements although without making fundamental changes.</td>
</tr>
<tr>
<td>Design differentiation: Offer a service that is truly different from all others.</td>
</tr>
<tr>
<td>Undifferentiation: Have no basis for differentiation. This is a common, and often deliberate, strategy in which an organisation simply copies the services of another.</td>
</tr>
</tbody>
</table>

Mintzberg (1991)

Focus strategy involves an organisation narrowing its competitive scope to focus on a specific market segment or segments (Porter, 1985) and, as such, can be considered to be essentially demand driven (Mintzberg, 1991). As the scope of focus strategy is narrow, this permits smaller organisations with limited resources to compete effectively against larger organisations with greater resources and to, potentially, achieve a competitive advantage in this manner (Aaker & Mills, 2005).

2.5.3 Miles and Snow

Four generic strategy types are proposed by Miles and Snow (1978) in a strategy classification based on product-market orientation (McKee, Varadarajan, & Pride, 1989) and construct structures and processes (Slater & Olson, 2001). Organisations classified as Prospects are considered to be the most marketing oriented (Olson, Slater, & Hult, 2005) and continually seek to develop new market opportunities (Slater & Olson, 2001). Defenders have a narrow product-market domain (Miles & Snow, 1978) and attempt to secure a portion of the total market (Slater & Olson, 2001). Analysers are positioned between prospectors and defenders and, therefore, operate across two market environments, one changing (prospector) and the other relatively stable (defender) (Miles & Snow, 1978). Lastly, Reactors are characterised as being inconsistent in their strategic orientation (McKee et al., 1989). Although a reactor organisation may perceive environmental changes it seldom makes any
adjustment until forced to do so by environmental pressures (Miles & Snow, 1978, p. 29).

2.5.4 Value Discipline Typology

A re-classification of marketing strategies is proposed by Treacy and Wiersema (1993, 1995) who suggest that the construct of value is the means through which an organisation may achieve competitive advantage. Three strategies, known as Value Disciplines, are proposed. The principal components of value are found to be price, time, service, and quality (Treacy & Wiersema, 1993). Whereas organisations may have previously increased prices in accordance with costs, Treacy and Wiersema (1993) argue that in the current competitive market environment organisations must keep costs under control. Similarly, in the current environment, consumers expect that service will be delivered in a timely manner and will be delivered at a premium standard. Finally, Treacy and Wiersema (1993) contend that high quality is now expected, rather than anticipated by the consumer.

The aim of each of the Value Disciplines is to achieve superior value for the consumer. Operational Excellence focuses on providing value by offering the best total cost for a service, with an emphasis on a combination of quality, price and delivery systems. Customer intimacy focuses on providing value by developing the best total solution for a consumer. The emphasis is firmly based on relationship marketing and the organisation strives to meet the exact needs for each individual consumer and to respond quickly to consumer demands. A customer intimate organisation undertakes activities to develop strong customer loyalty and customer lifetime value. Product leadership focuses on providing value by developing the best product or service. An organisation with a product leadership strategy continually develops new leading-edge products or services and strives to expand performance boundaries for existing products and services. A comparison of the features of the value disciplines can be seen in Table 2.4.
Table 2.4  Comparison of Value Discipline Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Operational Excellence</th>
<th>Product leadership</th>
<th>Customer Intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>Optimised to minimise costs.</td>
<td>Invention &amp; development.</td>
<td>Solution development</td>
</tr>
<tr>
<td>Systems</td>
<td>Standardised operations</td>
<td>Entrepreneurial</td>
<td>Delegation of decision making</td>
</tr>
<tr>
<td>Culture</td>
<td>Integrated &amp; reliable transactions</td>
<td>Results driven</td>
<td>Creating results for clients</td>
</tr>
<tr>
<td></td>
<td>Rewards efficiency</td>
<td>Encourages imagination</td>
<td>Relationships</td>
</tr>
</tbody>
</table>

Treacy and Wiersema (1993, 1995)

2.5.5  Summary of Marketing Strategy Typologies

The generic strategy typologies of Porter (1985), Mintzberg (1991) and Miles and Snow (1978) are investigated and found to focus on market share, profitability (Day & Wensley, 1988) and market growth. Porter (1985) considers these constructs through competitive actions, Miles and Snow (1978) through product market change (Walker & Ruekert, 1987) and Mintzberg (1991) through manipulation of supply and demand.

Market share, profitability and market growth are often particularly important for for-profit organisations and are regarded as indicators of marketing effectiveness (Day & Wensley, 1988). This is not always so for educational institutions which are, in many cases not-for-profit organisations (Moore, 2000). For example, many educational institutions simply seek to maintain the overall number of international students attending their institution from year to year. In a growing market, such as international education, (Bohm, Meares, Pearce et al., 2003; UNESCO, 2006) merely maintaining the number of international students actually equates to negative growth in real terms. Should these institutions be investigated using a strategy typology with growth as a performance indicator, such as Porter (1985), Mintzberg (1991) or Miles and Snow (1978), they may be evaluated as achieving a low performance outcome. This negative performance outcome may be formed even though the institution may be successful in achieving its own objectives regarding international student recruitment.

A similar situation exists in the case of market share. The international education industry within secondary schools has been described as nascent (Kenyon & Koshy, 2003) with many secondary schools recruiting a very small number of international
students. For example, within Australia there are 436 secondary schools registered to enrol international students (Department of Education Science and Training, 2005) with a total secondary school market of 27 049 (AEI, 2008a) international secondary school students. It is common for Australian secondary schools to have a total cohort (domestic and international students) of less than 2000 students with less than 10% of this total cohort being international students (Ross et al., 2007). Simple mathematics demonstrates that the market share for any single institution is likely to be extremely small. For these institutions, the concept of market share has little meaning as there is no particular understanding of international education as a market. Should a strategy typology with market share as a performance indicator be used to investigate these secondary schools, they would achieve a negative performance indicator even though, for these institutions, market share is not an important indicator.

Additionally some educational institutions enrol international students for reasons such as developing a diverse student body or facilitating personal growth and development. For these institutions growth, market share and profitability are not determinants of their ISR marketing strategies. Therefore, the strategy typologies proposed by Porter (1980), Mintzberg (1991) and Miles and Snow (1978), which accentuate on these performance indicators, may not be suitable for these educational institutions.

The strategy typology developed by Treacy and Wiersema (1993, 1995) is based around the construct of value rather than market growth. Harvey (1996) notes how suspicious educational practitioners are of marketing and the commercialisation of education. Therefore, using the construct of value rather than market growth, market share or profitability to investigate ISR marketing strategies may be less confronting, and more meaningful, for educational marketing practitioners. In addition, the construct of value may be more appropriate for institutions that recruit international students for reasons other than market share or profitability. Based on these reasons the Treacy and Wiersema Value Discipline typology (1993, 1995) is deemed most appropriate for this study.
2.6 Conclusion

International education is an important, and growing, global industry. Currently this industry is the largest service export in Australia (Reserve Bank of Australia, 2008), makes an annual contribution of more than $14.2 billion to the Australian economy (AEI, 2008b), and has grown by an average of 16% pa since 1997 (AEI, 2008b).

It is surprising, then, that much remains unknown about the international education industry, its key variables and its performance outcomes. As shown by the preceding review a number of gaps within the literature have been identified. Within the reasonably small body of research literature there are a mix of ideologies and conflicting and competing findings. Additionally a range of methodological approaches makes it difficult to make meaningful comparisons between studies. Although the industry has grown rapidly, the body of international education marketing knowledge is in a nascent phase. The study contained herein addresses the need for research into international education. An important contribution is made to international education knowledge by developing an understanding of international student recruitment performance outcomes from the perspective of market and learning orientations.

In this Chapter, market orientation and learning orientation are discussed. A direct relationship between market orientation and performance is found to be robust (Deshpande & Farley, 1998), variable (Jaworski & Kohli, 1993) and non-existent (Bhuian, 1997; Greenley, 1995b; Langerak et al., 2004). Less argument exists regarding the relationship between learning orientation and performance (Baker & Sinkula, 1999b; Lumpkin & Lichtenstein, 2005) yet consensus is still to be reached regarding the conceptualisation of the construct (Easterby-Smith, 1997; Mavondo et al., 2005). Within the education sector, Caruana et al. (1998) and Hammond et al. (2006) find a strong positive relationship between market orientation and institutional performance within the university sector. Similar studies within the secondary school sector are not identified (Oplatka & Hemsley-Brown, 2007). Despite calls regarding the importance of learning orientation within the education sector (Austin & Harkins, 2008), other researchers argue that the potential benefits of learning orientation to the sector are not yet understood (Imants, 2003; Thomas & Allen, 2006).
Prominent strategy typologies are considered for their suitability as an investigative framework to explore ISR marketing strategies within educational institutions. Of the typologies considered, the Value Discipline typology (Treacy & Wiersema, 1993, 1995) is found to be most appropriate for the study due to its emphasis on value rather than profitability or market share.

On this basis, the research objectives of this study are threefold. Firstly, the study seeks to investigate, and add to current theoretical understanding of, the relationship between market orientation, learning orientation, innovativeness and performance. Secondly, the study seeks to investigate ISR marketing within educational institutions to determine the relevance of these constructs and to determine the extent that market orientation, learning orientation and innovativeness influence performance. Thirdly, the study seeks to investigate how the relationship between market orientation, learning orientation, innovativeness and performance differs across educational sectors and ISR marketing strategy types.

The following chapter outlines the development of a model which incorporates the constructs that have been thus far discussed and will provide the theoretical framework for this study.
Chapter Three

Model Development

One of the major functions of theory is to order experience with the help of concepts. It also selects relevant aspects and data among the enormous multitude of “facts” that confront the investigator of social phenomena

(Coser, 1981, p. 170)

3.1 Introduction
Neuman (2003) suggests that a literature review permits a researcher to demonstrate familiarity with a body of knowledge, to demonstrate the relationships between a current project and existing research, to synthesise existing knowledge and to learn from others. These tasks were undertaken in Chapter Two and, as such, provide the basis upon which a systematic approach to model development may commence. Subsequently, developed over four stages, the Strategic Orientation Performance Model (SOP) is proposed as the theoretical model of this study. The SOP Model is used as a framework for hypothesis development and, in doing so, provides an avenue by which the research objectives of this study can be achieved.

3.2 Literature Relating to SOP Model Development
Key issues in ISR marketing and the international education industry, in the context of secondary schools and universities, were explored in Chapter Two. Additionally, the constructs of market and learning orientation and their relationships with innovativeness and the market environment were investigated as a means of measuring international student performance outcomes. These constructs are explored in more detail as the conceptual model is developed and the subsequent hypotheses posed.
Farrell and Oczkowski (2002) consider three competing model typologies in which each is differentiated by the antecedental construct. Organisational performance is the ultimate dependent variable for each of the typologies considered. Models considered commence with either the single construct of learning orientation or market orientation, or the dual constructs of learning orientation and market orientation. To these three typologies a fourth is added in this chapter; models in which environmental effects lead to organisational performance. In each case the typologies consider a relationship between one or more constructs and organisational performance. The typologies investigated, and their representative literatures, are summarised in Table 3.1.

### Table 3.1 Competing Model Typologies

<table>
<thead>
<tr>
<th>Typology</th>
<th>Representative models</th>
</tr>
</thead>
<tbody>
<tr>
<td>MO → OP</td>
<td>McKee et al. (1989), Jaworski and Kohli (1993), Han et al. (1998), Gray et al. (1999), Matear et al. (2002)</td>
</tr>
</tbody>
</table>

**Key**

- EE = environmental effects
- MO = market orientation
- LO = learning orientation
- OP = organisational performance

Source: Developed for this study

#### 3.2.1 Performance

Performance is the dependent variable for each of the models presented in Table 3.1. As such, the performance construct provides the researcher with a measurable means of investigating and comparing the influence of the independent variables across a range of organisational situations. The aim of such studies is, often, to identify the drivers of high performance and also to identify how the interaction of these drivers may impact on potential performance outcomes.
A threefold classification of performance measures is proposed by Ketokivi and Schroeder (2004); operational measures, perceptual measures and quasi-perceptual measures. Operational measures are widely used in the strategy literature (Rumelt, Schendel, & Teece, 1991) and focus on aspects such as ROI and market share. Perceptual measures seek informants’ perceptions regarding organisational performance while quasi-perceptual measures have an operational focus but use perceptual measurement units (Ketokivi & Schroeder, 2004). Table 3.2 presents the empirical studies from Table 3.1, categorised according to performance measurement type. All performance measurement types proposed by Ketokivi and Schroeder (2004) are evident with some studies using both perceptual and operational measurement.

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Representative studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>McKee et al. (1989), Han et al. (1998), Hurley and Hult (1998)</td>
</tr>
<tr>
<td>Perceptual</td>
<td>Sinkula et al. (1997), Baker and Sinkula (1999b)</td>
</tr>
<tr>
<td>Both perceptual and operational</td>
<td>Jaworski and Kohli (1993), Gray et al. (1999), Calantone et al. (2002)</td>
</tr>
</tbody>
</table>

Source: Developed for this study

In the context of educational institutions, the most appropriate way in which to operationalise performance is via perceptual measures. This is so because it is anticipated that survey respondents may not have access to operationally defined measures (Homburg, Krohmer, & Workman, 2004), nor, as discussed in Chapter Two, are such measures always relevant in organisations such as educational institutions (Herman, 1990). For this reason, performance will be referred to here as perceived organisational performance and will include perceptual measures of performance such as overall performance and perceived market performance. Previous research has demonstrated a high correlation between perceptual performance measures and operationally defined measures, thus supporting the reliability and validity of this approach (Dess & Robinson, 1984; Gray et al., 1999; Ketokivi & Schroeder, 2004).

The following sections explore the model typologies from Table 3.1 and the operationalisation of performance from Table 3.2. Additionally, within each section, research hypotheses are developed as the conceptual model is progressively revealed.
3.2.2 Innovativeness

The relationship between innovativeness and organisational performance has been well documented in the literature (Hult et al., 2004; Hult & Ketchen, 2001). It is generally supported that organisations with a higher degree of innovativeness have the capacity to achieve a competitive advantage (Hurley & Hult, 1998; Kropp et al., 2006) and, consequently, a higher level of performance (Calantone et al., 2002; Damanpour & Evan, 1984; Damanpour, Szabat, & Evan, 1989; Deshpande et al., 1993; Montoya-Weiss & Calantone, 1994; Rogers, 2003).

Empirical support for this relationship has also been demonstrated within the ISR marketing literature. Mazzarol (1998) identifies innovation as one of a series of variables considered critical in the recruitment of international students. Mazzarol (1998) argues that the successful implementation of the identified critical variables will assist an institution in achieving a competitive advantage. As previously discussed (refer Chapter 2), the constructs innovation and innovativeness sometimes appear to be interchangeable within the literature (Han et al., 1998; Lee & Tsai, 2005), however, for the purpose of this study innovativeness is the focus. Based on the findings from previous empirical studies (e.g., Hult et al., 2004; Hult & Ketchen, 2001; Mazzarol, 1998), it is suggested that the overall innovative capability of educational institutions in the recruitment of international students (innovativeness) will directly and positively affect ISR marketing performance outcomes (perceived organisational performance) (refer Figure 3.1). As such, it is hypothesised that:

\[ H1: \text{Innovativeness (ISR) has a significant positive effect on perceived organisational performance.} \]

Figure 3.1 Model Development Stage One

Source: Developed for this study
The following section investigates, firstly, the relationship between innovativeness (ISR) and perceived external market effects and, then, the relationship between perceived external market effects and performance outcomes.

3.2.3 Perceived External Market Effects

Several researchers note the effect of external market effects on innovativeness (e.g., Bstieler, 2002; Child, 1997; Mavondo et al., 2005; Tuominen, Rajala, & Moller, 2004). In particular, Bstieler (2002) notes that environmental uncertainty may be seen as an innovative opportunity while Han et al. (1998) argue that, in hostile markets, innovation represents a potential means for organisational survival. Despite research findings demonstrating a positive relationship between market environment dynamism and innovativeness (Brown & Eisenhardt, 1997; Eisenhardt & Tabrizi, 1995; Low, Chapman, & Sloan, 2007), Atuahene-Gima, Li and De Luca (2006) argue that established organisations have difficulty responding innovatively in a dynamic market due to their entrenched modes of operation. The dynamic nature of education markets is well supported in the literature (e.g., Bennet & Lockyer, 2004; Cuthbert, Smith, & Boey, 2008; Lovegrove & Clarke, 2008; Marginson & Sawir, 2006; Mazzarol & Soutar, 2001). Based on these studies, there exists strong justification to include this relationship in the model developed for the current study (refer Figure 3.2)

To date, no empirical studies investigating the relationship between perceived external market effects and innovativeness (ISR) have been identified in the international education marketing literature. However, as the relationship has been previously established across a variety of organisational settings, it is anticipated that the relationship should also exist within the education sector. As such, it is hypothesised that:

**H2: Perceived external market effects have a significant positive effect on innovativeness (ISR).**

Following from the findings of previous researchers (e.g., Lenz, 1981; Tsai, MacMillan, & Low, 1991), Slater and Narver (1994) proposed that environmental effects influence organisational performance. Lenz (1981) found that when there is
little managerial discretion, an organisation’s environment becomes a greater influence on performance than strategy. Tsai et al. (1991) found the environmental aspects of market growth and extent of market competition to significantly influence organisational performance. In particular, Tsai et al. (1991) warn of risks associated with high growth markets (as in the case of international education) in that many other organisations may also be simultaneously entering such markets, thereby potentially increasing the level of competition. Contrary to these researchers, however, Slater and Narver (1994) found little evidence to support this relationship. Jaworski et al. (2002) argue that both the business and information environments are antecedents of performance. The logical existence of a relationship between environmental factors and organisational performance is, subsequently, argued by Jaworski et al. (2002) however this relationship is not empirically tested.

In a departure from the conceptualisation of Slater and Narver (1994), Mazzarol and Soutar (1999) take an environmental determinist view of competitive advantage (Lado, Boyd, & Wright, 1992) to propose that environmental factors influence organisational performance in the context of international education. Environmental factors are conceptualised as industry and foreign market structures, while organisational performance is conceptualised as market success. Mazzarol and Soutar (1999) propose to measure market success through both perceptual and operationally defined measures of performance.

To date, very few empirical studies investigating the relationship between perceived external market effects and perceived organisational performance have been identified in the international education marketing literature. However, in support of findings from the literature (e.g., Jaworski et al., 2002; Mazzarol & Soutar, 1999; Tsai et al., 1991), it is anticipated that external market effects (e.g., market turbulence, technological turbulence and competitive hostility) will directly affect ISR marketing outcomes within the international education industry (refer Figure 3.2). For example, when international education markets are particularly turbulent, such as the SARS epidemic (Feast & Bretag, 2005; Sidhu, 2004), it may be more difficult for an educational institution to successfully realise their desired international student recruitment outcomes regardless of their market or learning orientations. Respondents in this study will be asked to consider external market effects in respect to their
institution’s international student recruitment operations. As such it is hypothesised that:

\[ \text{H3: Perceived external market effects have a significant positive effect on perceived organisational performance.} \]

**Figure 3.2 Model Development Stage Two**

The relationship between performance, innovativeness and market orientation has generated a large body of research within the genre and this is considered next.

### 3.2.4 Market Orientation

The relationship between market orientation and performance has been overtly (Jaworski & Kohli, 1993; Matear et al., 2002) and covertly (McKee et al., 1989) investigated. The relationship has been found to be direct (Matear et al., 2002), moderated by environmental factors (Gray et al., 1999; McKee et al., 1989), not moderated by environmental factors (Jaworski & Kohli, 1993) and mediated by innovation (Han et al., 1998; Matear et al., 2002).

Considerable development of the market orientation construct can be observed in the period prior to the research model developed by Han et al. (1998) with consolidation of the construct evident after this time. Throughout this research period, market orientation has been conceptualised as strategy type and tactics (McKee et al., 1989), intelligence generation and dissemination, and organisational responsiveness (Jaworski & Kohli, 1993), and customer and competitor orientation and inter-functional coordination (Han et al., 1998). Later researchers tend to develop conceptualisations of market orientation that synthesise previous conceptualisations.
For example, Gray, Matear, Boshoff and Matheson (1998), Gray et al. (1999) and Matear et al. (2002) conceptualise market orientation as a synthesis of customer and competitor orientation and inter-functional coordination, responsiveness (Jaworski & Kohli, 1993) and profit emphasis.

Differences emerge in regard to specific environmental effects that have been considered when investigating the moderating effect of market environment on the market orientation–performance relationship. Degree of volatility (McKee et al., 1989), degree of market and technological turbulence (Han et al., 1998; Jaworski & Kohli, 1993), and extent of competition (Gray et al., 1999; Jaworski & Kohli, 1993) have all been investigated as potential environmental moderators of the market orientation-performance relationship. In addition, Gray et al. (1999) investigated market growth, entry barriers and buyer power as moderators of potential environmental variables.

Of those studies, in which the relationship between market orientation and performance has been investigated, significant differences can be observed regarding measurement of the performance construct. For example Han et al. (1998) and McKee et al. (1989) measure performance using only operationally defined measures, Gray et al. (1999) and Jaworski and Kohli (1993) use both perceptual and operationally defined measures and Matear et al. (2002) use only perceptual measures.

A positive direct relationship between market orientation and performance has previously been demonstrated within the higher education sector (Caruana et al., 1998; Hammond et al., 2006) although, these studies investigate institutional areas other than international student recruitment. To date, no studies have been identified in which the market orientation relationship is investigated in the context of international student recruitment. Additionally, no studies exploring market orientation within the secondary school sector have been identified to date.

The argument proposed is that market orientation has a positive impact on performance outcomes (Kohli & Jaworski, 1990; Narver & Slater, 1990). Therefore, organisations with a stronger market orientation should perform better than organisations with a weaker market orientation. Yet, within the wider marketing
literature, a direct relationship between market orientation and perceived organisational performance is found to be robust (Deshpande & Farley, 1998; Matear et al., 2002), illogical (Atuahene-Gima, 1996), mixed (Jaworski & Kohli, 1993), mediated by innovation (Han et al., 1998; Matear et al., 2002) and non-existent (Bhuian, 1997; Greenley, 1995b; Langerak et al., 2004). The nature of the relationship between market orientation and performance remains unclear and requires further investigation. However, as a positive direct relationship between market orientation and performance has been demonstrated in other areas within the education sector (e.g., Caruana et al., 1998; Hammond et al., 2006) it is expected that this relationship will also be evident in this study (refer Figure 3.3). As previously discussed (refer Section 3.2), performance will be operationalised via perceptual measures. As such, it is hypothesised that:

\[ H4: \text{Market orientation has a significant positive effect on perceived organisational performance.} \]

Whereas numerous studies have investigated the relationship between market orientation and perceived organisational performance, the relationship between market orientation and innovativeness has been less rigorously investigated (Han et al., 1998; Rapp et al., 2008). Hult et al. (2004) and Jaworski and Kohli (1996) suggest that market orientation encourages the development of innovativeness. Agarwal et al. (2003) and Rapp et al. (2008), consequently, argue that the extent of innovativeness is directly and positively influenced by the extent of market orientation. This argument is in contrast to Atuahene-Gima (1996), who argues the relationship to be inverse and that increasing market orientation actually decreases innovativeness. Adding further complexity to the relationship between market orientation and innovativeness, Lawton and Parasuraman (1980) argue that the relationship is non-existent. Grinstein (2008a) finds the positive relationship between market orientation and innovativeness to be stronger in highly competitive environments and service environments. As the international education industry is a service industry in which many institutions actively compete for students it is expected that a strong positive relationship between market orientation and innovativeness (ISR) will be evident in this study (refer Figure 3.3).
To date, no studies in which the relationship between market orientation and innovativeness (ISR) in the context of education sectors or international student recruitment have been identified. It is hypothesised, however, that as educational institutions improve their ability to identify customers’ needs and competitors’ actions regarding international student recruitment (i.e., become more market orientated) they will become more receptive to innovative practices within their institution’s recruitment practices. As such it is hypothesised that:

\[ H5: \text{Market orientation has a significant positive effect on innovativeness (ISR).} \]

Day (1994) argues that the relationship between market orientation and performance (Deshpande et al., 1993; Jaworski & Kohli, 1993) is incomplete in itself, and considers learning orientation to be a means by which the relationship may be enhanced. The relationships between learning orientation, innovativeness and performance are discussed in the following section.

### 3.2.5 Learning Orientation

The specific term, learning orientation, is proposed by Sinkula et al. (1997) who group learning orientation elements into a single construct. Sinkula et al. (1997) develop an empirical model in which learning orientation is proposed to influence performance. Despite this proposition, a direct relationship between learning orientation and organisational performance is not actually investigated, although this is suggested as a potential future area for investigation (Sinkula et al., 1997).
The relationship between learning orientation and organisation performance has been conceptually (Day, 1994) and empirically (e.g., Baker & Sinkula, 1999a, 1999b; Calantone et al., 2002; Farrell, 2000; Kropp et al., 2006; Lee & Tsai, 2005; Sinkula et al., 1997) investigated. Day (1994) and Sinkula et al. (1997) consider the existence of an indirect relationship only, whereas Baker and Sinkula (1999a, 1999b) and Calantone et al. (2002) consider the existence of both a direct and indirect relationship. A direct only relationship between learning orientation and performance is investigated by Farrell (2000), Kropp (2006) and Lee and Tsai (2005). Sinkula et al. (1997) and Calantone et al. (2002) both find empirical support for an indirect relationship between learning orientation and organisation performance with Sinkula et al. (1997) finding market information generation and market information dissemination as mediating variables and Calantone et al. (2002) finding firm innovativeness as a mediating variable. Evidence of a direct relationship is found by Farrell (2000), Kropp (2006) and Lee and Tsai (2005). As such, in the model developed for the current study, it is expected that a relationship between learning orientation and performance will be evident (refer Figure 3.4).

Bennett and O'Brien (1994) argue that a learning orientation requires an organisation to develop a continuous . . . capacity to learn, adapt and change its culture (Farrell, 2000, p. 208). It is argued that organisations with a greater learning orientation are better able to recognise and successfully exploit market opportunities (Baker & Sinkula, 1999b; Lumpkin & Lichtenstein, 2005) and are better able to anticipate and respond to customers’ needs (Mavondo et al., 2005; Slater & Narver, 1995).

Within the education sector, literature investigating the relationship between learning orientation and performance is sparse. To date, no studies are identified in which student recruitment is investigated in any education sector. Austin and Harkins (2008) argue in support of a learning orientation for education institutions. However, Imants (2003) and Thomas and Allen (2006) argue that there is insufficient empirical support to determine whether educational institutions should attempt to develop a learning orientation or even to understand what potential organisational outcomes may occur as a result of implementing such an orientation.
Despite a lack of empirical investigation in the education sector, the causal relationship between *learning orientation* and *performance* has been well demonstrated in the marketing literature. It is anticipated that the relationship will be robust across other organisational sectors and, as such, it is hypothesised that:

*H6*: *Learning orientation has a significant positive effect on perceived organisational performance.*

Numerous researchers have demonstrated the existence of a significant positive relationship between *learning orientation* and *innovativeness* (e.g., Baker & Sinkula, 1999a; Farrell, 1999; Hult et al., 2004; Hurley & Hult, 1998; Lee & Tsai, 2005). Calantone et al. (2002) find empirical support for innovativeness as a moderator in the learning orientation and performance relationship. This is incorporated and tested in the model developed for the current study (refer Figure 3.4). The innovativeness of an organisation may be enhanced through the ability of learning oriented organisations to understand and learn from a competitive market environment (Calantone et al., 2002; Lant & Montgomery, 1987). Baker and Sinkula (1999a) suggest that the combined effect of learning orientation and innovativeness may provide an organisation with the ability to more effectively predict future market changes.

To date, no empirical studies investigating the causal relationship between *learning orientation* and *innovativeness* (ISR) have been identified in the international education marketing literature. However, as the robustness of the relationship has been previously established across a variety of settings, it is anticipated that the relationship will also be robust within the education sector. As such, it is hypothesised that:

*H7*: *Learning orientation has a significant positive effect on innovativeness (ISR).*
Based on the collective findings from previous studies and considering the direct and indirect relationships between market orientation and learning orientation, the proposed model is named and presented as the *Strategic Orientation Performance (SOP)* Model (refer Figure 3.4).

### 3.3 Strategic Orientation Performance (SOP) Model

The Strategic Orientation Performance (SOP) Model (refer Figure 3.4), is a visual representation of the relationships proposed to exist between the constructs, *market orientation*, *learning orientation*, *innovativeness (ISR)*, *perceived external market effects* and *perceived organisational performance*. In the conceptual model it can be seen that *perceived organisational performance* is directly affected by *market orientation*, *learning orientation* and *perceived external effects*. The relationship between *market orientation*, *learning orientation* and *perceived organisational performance* is also shown to be mediated by *innovativeness (ISR)*.

Whereas market orientation refers to organisational behaviours concerned with identifying customers’ needs and competitors’ actions (Gray et al., 1999, p. 234), learning orientation refers to the process of improving these behaviours (Fiol & Lyles, 1985, p. 803). It is suggested here that the combination of both market orientation and learning orientation will determine the degree of success with which an educational institution achieves its desired ISR marketing outcomes (*perceived organisational performance*). In addition to this direct relationship, the overall innovative capability of an institution (*innovativeness ISR*) is argued to affect international student recruitment marketing outcomes (*perceived organisational performance*).
performance). Environmental effects such as market turbulence, technological turbulence, competitive hostility, and market growth (perceived external market effects) within the international educational industry are argued to directly affect ISR marketing outcomes (perceived organisational performance) for an institution. For example, when international education markets are particularly turbulent, such as the SARS epidemic, the September 11, 2001 terrorist attacks in the United States or the 2008 financial crisis (e.g., Baker, 2006; Chute, 2006; Employment Workplace Relations and Education Legislation Committee, 2003; Feast & Bretag, 2005; Sidhu, 2004; Smith, 2003; Trounsen, 2008), it may be more difficult for an educational institution to successfully realise their desired international student recruitment outcomes regardless of their market or learning orientations. Environmental effects are argued to also directly affect the innovativeness (ISR) of an institution involved in the recruitment of international students. For example, a competitive market environment may encourage institutions to exploit their innovativeness.

In summary, the Strategic Orientation Performance (SOP) Model is proposed as a conceptual framework to guide the development of hypotheses in order to address the research objectives of this study. Table 3.3 provides a clear definition of each construct, as shown in Figure 3.4, and discussed in this section.

**Table 3.3 SOP Model – Definition of Constructs**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market orientation</td>
<td>Organisational behaviours concerned with identifying customers’ needs and competitors’ actions, sharing and responding to market information (Gray et al., 1999, p. 234)</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>Set of shared organisational values that gives rise to the tendency for the organisation to create and use knowledge (Sinkula et al., 1997, p. 309). The degree to which the organisation values knowledge, is open-minded and has a shared vision (Baker &amp; Sinkula, 1999a, p. 299).</td>
</tr>
<tr>
<td>Innovativeness (ISR)</td>
<td>An organisation’s overall innovative capability (Wang &amp; Pervaiz, 2004, p. 304) and openness to new ideas as an aspect of a firm’s culture (Hurley &amp; Hult, 1998, p. 44)</td>
</tr>
<tr>
<td>Perceived external market effects</td>
<td>The perceived degree of market turbulence, competitive intensity and technological turbulence in the market environment in which the institution operates.</td>
</tr>
<tr>
<td>Perceived organisational performance</td>
<td>The perceived degree to which the organisation’s objectives, strategy and market structure are met.</td>
</tr>
</tbody>
</table>
3.4 Hypothesis Summary

The SOP Model (refer Figure 3.5) provides the theoretical framework which addresses the research objectives of this study. As such, the SOP Model conceptualises organisational performance in the context of international student recruitment. As well, the model assists in the methodical development of hypotheses that will guide data collection and, subsequent, analyses in order to address the research objectives raised in this study. The SOP Model effectively conceptualises the relationships between the central constructs (*market orientation, learning orientation, innovativeness (ISR), perceived external market effects, perceived organisational performance*). The hypotheses of the study are clearly identified in the proposed model (refer Figure 3.5) and Table 3.4.

Figure 3.5 Proposed Conceptual Model

![Proposed Conceptual Model Diagram]

+ indicates positive effect
Table 3.4  Summary of Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Innovativeness (ISR) has a significant positive effect on perceived organisational performance</td>
</tr>
<tr>
<td>H2</td>
<td>Perceived external market effects have a significant positive effect on innovativeness (ISR)</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived external market effects have a significant positive effect on perceived organisational performance</td>
</tr>
<tr>
<td>H4</td>
<td>Market orientation has a significant positive effect on perceived organisational performance</td>
</tr>
<tr>
<td>H5</td>
<td>Market orientation has a significant positive effect on innovativeness (ISR)</td>
</tr>
<tr>
<td>H6</td>
<td>Learning orientation has a significant positive effect on perceived organisational performance</td>
</tr>
<tr>
<td>H7</td>
<td>Learning orientation has a significant positive effect on innovativeness (ISR)</td>
</tr>
</tbody>
</table>

3.5  Marketing Strategy

As discussed in Chapter Two, empirical support for the specific relationships described in the SOP Model is mixed, with differences in the existence and strength of relationships found within the literature. For example, the relationship between market orientation and performance has been found to be direct (Matear et al., 2002), moderated by environmental factors (Gray et al., 1999; Jaworski & Kohli, 1993; McKee et al., 1989), mediated by innovation (Han et al., 1998; Matear et al., 2002) and non-existent (Bhuian, 1997; Greenley, 1995b; Langerak et al., 2004). One way in which researchers have investigated differences in such relationships is through the use of organisational strategy as a determining variable (e.g., Miles & Snow, 1978; Porter, 1985).

Hambrick (1980) argues that the adoption of a specific organisational strategy will critically impact on the operation and performance of an organisation. This being the case, it then follows that different organisational strategies should result in different organisational outcomes and also should place different levels of importance on relationships between variables (e.g., market orientation and performance). This concept is investigated in this study. This type of research has previously been conducted within international education (e.g., Elkin et al., 2008; Mazzarol & Soutar, 2008). Elkin et al. (2008) classified institutions according to whether they displayed a complete or incomplete strategic focus, while Mazzarol and Soutar (2008) classified institutions using Porter’s generic positioning strategies. Both Elkin et al. (2008) and Mazzarol and Soutar (2008) found differences in institutions based on the prevailing strategy type. The approach of using a strategy typology is adopted in this study.
although, for reasons previously discussed (refer Chapter 2, Section 2.5.1), the Value Discipline Strategy typology (Treacy & Wiersema, 1993, 1995) is used as the means to investigate relationship differences across the SOP Model. It is expected that differences in the SOP Model will be evident depending on the prevailing Value Discipline strategy. As such it is hypothesised that:

\[ H8: \text{The structural model will differ significantly across international student recruitment marketing strategy types (i.e., operational excellence, product leadership, customer intimacy).} \]

### 3.6 Education Sector

This study investigates ISR marketing by educational institutions. As such, the Strategic Orientation Performance (SOP) Model is proposed as a generic model that will further our understanding of the relationships between factors such as market orientation, learning orientation and innovativeness and international student recruitment performance. The international education industry includes a number of different sectors (e.g., university, vocational education, school and ELICOS), however, it would be complex to incorporate all sectors into the current study. In order to reduce complexity, this study focuses on only two international education sectors, the university and secondary school domains. In terms of international student recruitment, the university sector is the largest, fastest growing and most mature of the education sectors (UNESCO, 2006) while the secondary school sector has been described as immature and, largely, undeveloped (Kenyon & Koshy, 2003). Regarding the international education industry within Australia, the university sector is the largest recruiter of international students while the secondary school sector is the smallest (AEI, 2008c).

These differences may initially appear problematic in terms of theory generalisability, however, Ross et al. (2007) noted many similarities between secondary schools and universities involved in recruiting international students. Ross et al. (2007) found, from both the secondary schools and universities included in their sample, that the majority claimed to have ISR marketing strategies and reviewed these strategies at least once every twelve months. Additionally, for both secondary schools and universities, similarities were found regarding the size of ISR marketing departments.
(number of employees), length of institutional recruiting experience and ISR marketing strategy development process (Ross et al., 2007). Despite differences in terms of numbers of international students recruited, many strategic and operational similarities exist between secondary schools and universities involved in recruiting international students. As such, it is anticipated that the structure of the SOP Model should, therefore, be consistent for both the secondary school and university sectors. It is hypothesised that:

\[ H9: \text{The structural model will not differ significantly across education industry sectors (i.e., secondary and university).} \]

3.7 Conclusion
The Strategic Orientation Performance (SOP) Model is proposed as a generic model to assist in furthering our understanding of how market and learning orientations, innovativeness and the perceived external market environment impact on organisational performance within the context of a service environment (e.g., ISR marketing). The SOP Model was developed via a rigorous and systematic process of theory development and, as such, is grounded in existing theory developed from a variety of constructs such as market and learning orientation, innovativeness and market environment. The model depicts relationships between constructs such as market orientation, learning orientation, innovativeness (ISR), perceived external market effects and perceived organisational performance. As such, the SOP Model provides the foundation for hypotheses development and subsequent empirical testing. The nine hypotheses developed will guide decisions regarding research design (refer Chapter Four), while the proposed model provides the basis for analysis and reflection, following the collection of data (refer Chapter Five).
Chapter Four

Methodology

Research designs are invented to enable researchers to answer research questions as validly, objectively, accurately, and economically as possible. Research plans are deliberately and specifically conceived and executed to bring empirical evidence to bear on the research problem.

(Kerlinger & Lee, 2000, p. 450)

4.1 Introduction

Relevant literature concerning international education and international education marketing was reviewed and discussed in Chapter Two. Specifically, this discussion focussed on market and learning orientation, innovativeness, external environment and organisational performance. Chapter Three identified and discussed the elements of the Service Organisational Performance (SOP) Model, developed for this study, from which hypotheses were developed. This chapter (Chapter Four) presents the research plan adopted in order to address these hypotheses. Adopting the model developed by Kumar et al., (2002), preliminary research planning (i.e., research purpose and boundaries) is discussed. This is followed by an exploration of the research design process (i.e., research approach and research tactics) and the research implementation (i.e., cost and timing estimates, and data collection). Initially, however, the chapter commences with a brief discussion of the methodological approach adopted for this study.

4.2 Methodological Approach

Addressing the philosophical assumptions that underlie the selected methodological approach, or paradigm (Kuhn, 1996), is a fundamental aspect of research (Hussey & Hussey, 1997). Morgan (1979) argues that the term *paradigm* may be conceptualised at three different levels of interaction; philosophical, social and technical. At the
philosophical level, the term is used to describe a concept of reality while, at the
social level, it provides overarching parameters for specific scientific schools of
thought. Lastly, at the technical level, paradigm denotes the techniques to be used in
specific scientific endeavours.

There is a connection between the conceptions of reality to which
social scientists adhere, the schools of thought to which they
belong, and the kinds of "tools" which they use as a basis for their
puzzle-solving enterprises (Morgan, 1979, p. 137).

The two dominant paradigms within the social sciences are the positivist and the
phenomenological/interpretivist paradigms (Barker, Nancarrow, & Spackman, 2001;
McMurray, Pace, & Scott, 2004; Neuman, 2003). The positivist paradigm mostly
involves the collection of quantitative data while the phenomenological/interpretivist
paradigm mostly involves the collection of qualitative data (Creswell, 2003; Neuman,
2003). Whereas the positivist paradigm considers reality to be a concrete
discoverable structure (McMurray et al., 2004), the phenomenological/interpretivist
paradigm considers reality to be a projection of human imagination (Neuman, 2003).

Qualitative methodology is based on the phenomenological/interpretivist paradigm.
This methodology involves the researcher as an active participant who attempts to
construct social reality through a focus on interactive processes (Creswell, 2003;
Neuman, 2003). Much qualitative research occurs in its natural setting allowing
researchers to interpret phenomena “in terms of the meanings that people give to
them” (Denzin & Lincoln, 1998, p. 3). Mostly qualitative research approaches may
be considered as data enhancers (Ragin, 1994) in that they tend to enhance a small
amount of data in order to better observe specific aspects.

Quantitative methodology is based on the positivist paradigm. This methodology
involves the researcher as a detached observer (Neuman, 2003) who measures
objective facts, tests hypotheses and employs statistical analysis (Creswell, 2003;
Neuman, 2003). Whereas qualitative research approaches are considered data
enhancers, quantitative research approaches may be considered as data condensers
(Ragin, 1994) in that they attempt to condense a large amount of data in order for the
overall picture to emerge. A comparison of quantitative and qualitative research approaches can be seen in Table 4.1.

<table>
<thead>
<tr>
<th>Quantitative Style</th>
<th>Qualitative Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure objective facts</td>
<td>Construct social reality, cultural meaning</td>
</tr>
<tr>
<td>Focus on variables</td>
<td>Focus on interactive processes, events</td>
</tr>
<tr>
<td>Reliability is key</td>
<td>Authenticity is key</td>
</tr>
<tr>
<td>Value free</td>
<td>Values are present and explicit</td>
</tr>
<tr>
<td>Independent of context</td>
<td>Situationally constrained</td>
</tr>
<tr>
<td>Many cases, subjects</td>
<td>Few cases, subjects</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Researcher is detached</td>
<td>Researcher is involved</td>
</tr>
</tbody>
</table>

Source: (Neuman, 2003, p. 16)

The literature discussed in Chapters Two and Three identifies a number of studies that investigate concepts described in the SOP Model. Many of these studies follow the positivist paradigm in that they employ quantitative methods to examine hypotheses, test theories and measure the strength and direction of relationships between constructs. These tasks are also undertaken in the current study and, therefore, a quantitative research approach is implied whereby statistical procedures are used to test hypotheses developed from the conceptual model.

4.3 Research planning

This study has adopted the marketing research design process developed by Kumar et al. (2002). The research design process (refer Figure 4.1) comprises several stages thereby providing a systematic decision-making approach towards the study prior to its commencement (Neuman, 2003; Tull & Hawkins, 1990). Although the model portrays the research process as a series of sequential steps, this is rarely the case as the specific steps within the process do not function in isolation but rather contribute to an iterative process (Kumar et al., 2002; Neuman, 2003). The model shown in Figure 4.1 describes three stages of the research process – preliminary planning, research design and implementation. These three stages are each explored in the remaining sections of this chapter.
Figure 4.1  Marketing Research Design Process

Source: Kumar et al. (2002, p. 68)
4.3.1 Preliminary Planning Stage
The preliminary planning stage of the research design process comprises an analysis of the problem, the development of research questions and hypotheses to address these, as well as an evaluation of the value and contribution of the proposed research (Kumar et al., 2002). These tasks have been addressed in the previous chapters. Particularly, relevant literature is reviewed in Chapters Two and Three in which focal constructs are identified leading to the proposition of research objectives (refer Chapter Two) and the development of research hypotheses (refer Table 3.4). As such, the preliminary phase of the research design process provides a strong foundation to proceed to the second phase of the process – the research design phase as shown in Figure 4.1 (Stage Two).

4.3.2 Research Design
The research design phase incorporates the selection of a research approach and the subsequent research tactics derived from the selected approach (Kumar et al., 2002). Issues to be addressed in this stage of the research process include; the selection of a method for data collection; clarifying the role of the researcher; developing appropriate measures; designing the sampling plan; and anticipating the analysis. However, the initial point for this discussion concerns the research approach to be adopted.

4.3.2.1 Research Approach
The adoption of a research approach should be guided by the specific research objectives of the study to be undertaken (McMurray et al., 2004). Three broad research approaches that may be adopted (explanatory, descriptive and causal) can be seen in Figure 4.1 (Kumar et al., 2002). Exploratory research is used to develop general familiarity with a problem when, typically, there is little prior knowledge available (Kumar et al., 2002; Neuman, 2003). As such, exploratory research methods tend to be flexible and versatile (Malhotra, 1999). Additionally, exploratory research may be useful in determining the feasibility of further research (Green, Tull, & Albaum, 1988; Hair, Bush, & Ortinau, 2003) or in developing techniques for future data measurement (Neuman, 2003).
The goal of descriptive research is to provide an accurate and detailed picture of an aspect of the marketing environment (Kumar et al., 2002; Neuman, 2003). In contrast to exploratory research, descriptive research involves a clear problem statement (Malhotra, 1999) and, generally, testable hypotheses (Kumar et al., 2002). Relationships between variables are often explored in descriptive research, however, causality is not established (Green et al., 1988). Causal research is used to demonstrate cause-and-effect relationships between two or more variables and is used to predict outcomes (Hair et al., 2003). As such, causal research often follows descriptive research in that it investigates causality between variables where a relationship has been previously identified (Kumar et al., 2002). In the case of the current study, descriptive research is employed in order to describe the relationships between the constructs of the SOP Model (refer Figure 3.4) and measure the strength of these relationships. However, essentially the research extends beyond descriptive to a causal approach as the proposed conceptual model (refer Figure 3.5) will imply prediction.

Following the research approach, the next step identified in the research design process (refer Figure 4.1) involves the choice of data collection method (Kumar et al., 2002). Data that has been previously collected for reasons other than the current study is known as secondary data (Kumar et al., 2002), whereas data that has been collected to specifically address the research objectives of the current study, and has not yet received meaningful interpretation, is known as primary data (Hair et al., 2003). For the current study, secondary data which addresses the research objectives was not found to exist. Therefore, as specific data is required in the current study, primary data collection is necessary and this may be collected through a variety of methods (e.g., interview, survey, experimental). However, due to its prevalence within the marketing domain and because of its ability to collect quantitative data for statistical analysis (Babbie, 1990; Kumar et al., 2002), the survey data collection method was chosen as the most appropriate method to test the hypotheses proposed in Chapter Three. Further benefits of the survey data collection method are outlined in Table 4.2.
There exist several different survey research methods, generally classified according to mode of administration and nature of interaction (Malhotra, 1999; McMurray et al., 2004). Table 4.3 presents the strengths and weaknesses of person-administered, computer-administered and self-administered survey methods. Person-administered interviews require a human interviewer to ask questions and record the respondent’s answers. This method permits feedback and allows the interviewer to develop rapport with the respondent. Consequently, the person-administered interview tends to have a high response rate (Neuman, 2003) as well as higher quality responses (McMurray et al., 2004). However, this type of survey is open to potential interviewer bias, is costly and is likely to take longer than other survey methods (Hair et al., 2003; Kumar et al., 2002; McMurray et al., 2004).

Computer-administered surveys involve either the interviewer reading questions from a computer screen and directly entering respondents’ responses or the computer interacting directly with the respondent without human interviewer interaction. These methods offer a reduction in potential interviewer bias and flexibility in data collection (Malhotra, 1999) as well as a reduction in data entry error and faster administration times (Hair et al., 2003). However, computer-administered surveys usually have high initial costs and also can present confidentiality issues in the minds of respondents (Malhotra, 1999).

Self-administered surveys involve the respondent undertaking the survey without the presence of a trained interviewer. Of the survey methods, this method is the most cost effective (Malhotra, 1999; McMurray et al., 2004). Additionally, the self-administered method reduces potential interviewer bias (Neuman, 2003), offers respondents a sense of anonymity (Malhotra, 1999), and accommodates large surveys.

Table 4.2 Advantages of Survey Data Collection Methods

<table>
<thead>
<tr>
<th>Advantages</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to accommodate large sample sizes; increases generalizability of results</td>
<td></td>
</tr>
<tr>
<td>Ability to distinguish small differences</td>
<td></td>
</tr>
<tr>
<td>Ease of administering and recording questions and answers</td>
<td></td>
</tr>
<tr>
<td>Abilities of tapping into factors and relationships not directly measurable</td>
<td>Source: Hair et al. (2003, p. 256)</td>
</tr>
</tbody>
</table>
distributed across wide geographical regions (Kumar et al., 2002; Neuman, 2003). The disadvantages of the self-administered method can include low response rates (McMurray et al., 2004), lack of quality control over the environment in which the survey is being completed (Kumar et al., 2002) and the researcher’s inability to probe responses more deeply (Hair et al., 2003).

Table 4.3  Comparison of Survey Types

<table>
<thead>
<tr>
<th>Survey Type</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person-administered</td>
<td>Feedback &amp; rapport</td>
<td>Slow &amp; expensive to administer</td>
</tr>
<tr>
<td></td>
<td>Adaptability</td>
<td>Interviewer bias</td>
</tr>
<tr>
<td></td>
<td>Good response rate</td>
<td>Social responsibility bias</td>
</tr>
<tr>
<td>Computer-administered</td>
<td>Completion speed</td>
<td>Time and costs with set-up</td>
</tr>
<tr>
<td></td>
<td>Reduction in errors</td>
<td>Confidentiality issue</td>
</tr>
<tr>
<td></td>
<td>Real time data capture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduction of interviewer bias</td>
<td></td>
</tr>
<tr>
<td>Self-administered</td>
<td>Reduced cost</td>
<td>Low response rates</td>
</tr>
<tr>
<td></td>
<td>Eliminates interviewer bias</td>
<td>No person present to clarify any questions or issues</td>
</tr>
<tr>
<td></td>
<td>Respondent control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accommodates long surveys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accommodates large samples</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from: Kumar et al. (2002); Malhotra (1999); McDaniel and Gates (1996); Neuman (2003).

Having considered the advantages and disadvantages of the various survey methods (refer Table 4.3), the self-administered survey method was selected for this study. With the advent of communication technologies many self-administered surveys are now administered online (Zikmund & Babin, 2007), thus permitting a fast turn-around (Kaplowitz, Hadlock, & Levine, 2004; Malhotra, 1999). A hyperlink can be emailed to potential respondents allowing them easy access to the online survey directly from their email window (Kumar et al., 2002) thereby eliminating printing and postage costs normally associated with mail surveys (Van Selm & Jankowski, 2006). Additionally, an online self-administered survey method permits a straightforward implementation across national boundaries (Ilieva, Baron, & Healey, 2002). This is particularly appropriate for the current study which has a nation-wide focus. For these reasons, the self-administered survey method adopted for the current study was administered online.

4.3.2.2 Research Tactics

Following the selection of the research approach, the next section of the research design involved determining appropriate research tactics (refer Figure 4.1). This includes development of measures, design of the sampling plan and anticipation of
analysis (Kumar et al., 2002). The importance of developing highly valid measures has been well discussed in the literature (e.g., Churchill, 1979; Jacoby, 1978; Venkatraman & Grant, 1986). In view of this, every effort was made to develop a psychometrically sound survey instrument to accomplish the objectives of the study (Kumar et al., 2002; Nunnally & Bernstein, 1994). The two phase process used to develop the survey can be seen in Figure 4.2.

**Figure 4.2 Survey Development Process**

Phase One

**Inputs**
- Items from existing measures (82 items)

**Phase One**

- Initial item pool 82 items
- Scale and format selection
- Draft survey 82 items

**Phase Two**

**Inputs**
- Expert panel

**Phase Two**

- Revise and refine instrument (72 items)
- Construct online survey
- Pre-test online to reveal online errors

**Outputs**
- Final survey to administer (72 items)

Phase One (refer Figure 4.2) involved item generation from existing literature as well as item generation via a deductive process. Scales were then selected for these items.
resulting in a draft survey for the commencement of Phase Two. Phase Two largely concentrated on the refinement of items through expert panels resulting in the production of the final survey instrument (refer Appendix A). As the survey was to be administered via an online system, it was pre-tested online prior to implementation and data collection.

4.3.2.3 Survey Development – Phase One
The initial pool of items for use in the survey was generated from existing measures and also via a deductive process. This process of item generation should be guided by the research objectives and be theoretically grounded (Kumar et al., 2002). As such, the constructs investigated in this study were identified and discussed in the previous chapters. The constructs identified and discussed include market orientation, learning orientation, innovativeness (ISR), perceived external market effects and perceived organisational performance.

4.3.2.3.1 Measuring Market Orientation
Items used to measure market orientation were sourced from Gray et al. (1998) who developed a twenty item scale based on the work of Narver and Slater (1990), Jaworski and Kohli (1993) and Deng and Dart (1994). Gray et al. (1998) conceptualised market orientation as comprising five sub-constructs (customer orientation, competitor orientation, inter-functional coordination, responsiveness and profit emphasis). Gray et al. (1998) reported reliabilities of the sub-constructs ranging from \( \alpha = .66 \) to \( \alpha = .83 \) as well as establishing construct, criterion and discriminant validity during the development stage. As discussed previously (refer Chapters Two and Three), profit is often not a motivating factor for educational institutions recruiting international students and, as such, the profit emphasis measures were deemed not relevant to this study and were not included. Although the original scale was administered to a wide range of industries, slight alterations to the wording of items were needed to adapt the scale to better relate to educational institutions. Examples of changes made can be seen in Table 4.4.
Table 4.4 Examples of Changes made to Market Orientation Scale

<table>
<thead>
<tr>
<th>Original Scale Item</th>
<th>Item Used in This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have a strong commitment to our customers.</td>
<td>We have a strong commitment to our international students and their families.</td>
</tr>
<tr>
<td>We regularly monitor our competitors’ marketing efforts</td>
<td>We regularly monitor our competitors’ international student recruitment efforts.</td>
</tr>
<tr>
<td>Marketing information is shared with all departments</td>
<td>In my institution, international student recruitment information is shared with all departments</td>
</tr>
</tbody>
</table>

Additionally, the *responsiveness* scale used by Gray et al. (1998) contained only two items and a low reported coefficient alpha \((\alpha = .66)\). Although .60 may be considered sufficient for exploratory research (Hair, Anderson, Tatham, & Black, 1998), an alpha value of .70 is considered by many to be a more appropriate lower limit (Hair et al., 1998; Nunnally, 1978). The *responsiveness* scale (Gray et al., 1998) was adapted from the *market orientation (response origin)* and *market orientation (response implementation)* scales developed by Jaworski and Kohli (1993). The Jaworski and Kohli (1993) scales both contain seven measures and report coefficient alphas of .78 and .82 respectively. As these alphas are both above the suggested appropriate lower limit (Hair et al., 1998; Nunnally, 1978), both scales were included in the current study. As for the other items in the *market orientation* scale, slight alterations to the wording were needed to adapt the scale to better relate to educational institutions. Examples of changes made can be seen in Table 4.5.

Table 4.5 Examples of Changes made to Market Orientation (Responsiveness)

<table>
<thead>
<tr>
<th>Original Scale Item</th>
<th>Item Used in This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>We periodically review our product development efforts to ensure they are in line with what customers want</td>
<td>In our international student recruitment department, we periodically review our product development efforts to ensure they are in line with what international students want</td>
</tr>
<tr>
<td>Our business plans are driven more by technological advances than by market research</td>
<td>In our international student recruitment department, business plans are driven more by technological advances than by market research</td>
</tr>
</tbody>
</table>

4.3.2.3.2 Measuring Learning Orientation

Items used to measure learning orientation were sourced from Baker and Sinkula (1999b) who developed an eighteen item scale adapted from Sinkula et al. (1997). Sinkula et al. (1997) contend that learning orientation consists of the sub-constructs *commitment to learning*, *shared vision*, and *open-mindedness*. This scale has previously been used in a wide range of contexts (e.g., Emden, Yaprak, & Cavusgil,
and, as such, was considered to be an appropriate measure of the learning orientation construct. Baker and Sinkula (1999b) reported a reliability of $\alpha = .87$ for commitment to learning, .86 for shared vision and .80 for open-mindedness in addition to achieving face validity on the original items through evaluation by an expert panel. However, slight alterations to the wording of items were needed to adapt the scale to better relate to educational institutions. Examples of changes made can be seen in Table 4.6.

<table>
<thead>
<tr>
<th>Original Scale Item</th>
<th>Item Used in This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>The basic values of the business unit include learning as a key to improvement</td>
<td>The basic values of our international student recruitment department include learning as a key to improvement</td>
</tr>
<tr>
<td>There is a well-expressed concept of who we are and where we are going as a business unit</td>
<td>Our international student recruitment department has a well-expressed concept of who we are and where we are going</td>
</tr>
<tr>
<td>Managers in this business unit do not want their “view of the world” to be questioned</td>
<td>Managers in the international student recruitment department do not want their “view of the world” to be questioned</td>
</tr>
</tbody>
</table>

4.3.2.3.3 Measuring Innovativeness (ISR)

Calantone et al. (2002) conceptualise innovativeness as an organisational behaviour as well as an aspect of organisational culture. This conceptualisation is reflected in their six item innovativeness scale adapted from Hurt, Joseph and Cook (1977), Hurt and Teigen (1977) and Hollenstein (1996) and subsequently validated in many studies (Calantone et al., 2002). Additionally, Calantone et al. (2002) report a high reliability for the scale ($\alpha = .89$). This scale was selected for use in this study, however, minor alterations to the wording of items were needed to adapt the scale to better relate to educational institutions (refer Table 4.7).

<table>
<thead>
<tr>
<th>Original Scale Item</th>
<th>Item Used in This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our company frequently tries out new ideas</td>
<td>The international student recruitment department in this institution frequently tries out new ideas</td>
</tr>
<tr>
<td>Our company is often first to market in with new products and services</td>
<td>The international student recruitment department in this institution is often first to market in with new products and services</td>
</tr>
</tbody>
</table>
4.3.2.3.4 Measuring Perceived External Market Effects

This construct relates to how respondents perceive their external markets in terms of market and technological turbulence as well as competitive intensity. Items used to measure perceived external market effects were adapted from Jaworski and Kohli (1993) and Miller (1987). The six item market turbulence scale developed by Jaworski and Kohli (1993) has been previously used in a variety of contexts (e.g., Appiah-Adu, 1997; Dwairi, Bhuian, & Jurkus, 2007; Harris, 2001). The reported reliability of this scale is $\alpha = .68$ (Jaworski & Kohli, 1993). As this is less than the previously discussed $\alpha = .70$ (refer Section 4.3.2.3.2) desired for this study (Hair et al., 1998; Nunnally, 1978), additional items from the environmental dynamism scale developed by Miller (1987) were also included in an attempt to strengthen the reliability of the scale. Slight alterations to the wording of items were needed to adapt the scale to better relate to educational institutions. Examples of changes made can be seen in Table 4.8.

Competitive intensity refers to the extent of competition in the market. Kohli and Jaworski (1990) suggest that when there exists a considerable degree of competition in the market, customers have many alternative options to meet their needs. Items used to measure competitive intensity were sourced from Jaworski and Kohli (1993) who developed a six item scale ($\alpha = .81$) and Miller (1987) who developed a four item environmental hostility scale. In both cases the wording of items was modified slightly to better relate to educational institutions. Examples of changes made can be seen in Table 4.8.

Technological turbulence refers to the rate of technological change within an industry (Jaworski & Kohli, 1993). Items used to measure technological turbulence were adapted from Jaworski and Kohli (1993) who developed a five item scale with a high reliability ($\alpha = .88$). Wording of items was modified slightly to better related to educational institutions. Examples of changes made can be seen in Table 4.8.
Table 4.8   Examples of Changes made to Perceived External Market Effects

<table>
<thead>
<tr>
<th>Original Scale Item</th>
<th>Item Used in This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>In our kind of business, customers’ product preferences change quite a bit over time</td>
<td>International students’ program and subject preferences change quite a bit over time</td>
</tr>
<tr>
<td>Over the past five years research and development (R&amp;D) activity in your principal</td>
<td>Over the past five years, research and development activity in the international student</td>
</tr>
<tr>
<td>industry has substantially increased/ has fallen off greatly</td>
<td>recruitment industry has substantially increased</td>
</tr>
<tr>
<td>Competition in our industry is cutthroat</td>
<td>Competition in the international student recruitment industry is very aggressive</td>
</tr>
<tr>
<td>Over the past five years market activities of your key competitors have become far</td>
<td>Over the past five years, recruitment activities of our key competitors have become far</td>
</tr>
<tr>
<td>less/far more predictable</td>
<td>less predictable</td>
</tr>
<tr>
<td>The technology in our industry is changing rapidly</td>
<td>Technology used in international student recruitment is changing rapidly</td>
</tr>
</tbody>
</table>

4.3.2.3.5   Measuring Perceived Organisational Performance

As previously discussed in Chapter Three, perceptual measures are adopted to measure performance in this study. This is because it is anticipated that survey respondents may not have access to operationally defined measures (Homburg et al., 2004), nor, as discussed in Chapter Two, are such measures always relevant in organisations such as educational institutions (Herman, 1990). The *perceived organisational performance* construct, developed for this study, includes perceptual measures of both *overall performance* and *market performance*. *Overall performance* considers the respondents’ perception of performance from within the organisation while *market performance* considers the respondents’ perception of performance in comparison to competitors. The inclusion of both internal and external aspects of performance provides a more holistic perception of institutional performance.

Items used to measure overall performance were adapted from Olson et al. (2005) who developed a three item scale based on Jaworski and Kohli (1993). This scale considers performance in the context of the institution’s objectives, strategy and market structure (Olson et al., 2005). Items used to measure perceived market performance were sourced from Homburg and Pflesser (2000) who developed a six item scale adapted from Irving (1995). This scale seeks respondents’ perceptions of performance based on a three year time frame. For both scales a high reliability was reported with Olson et al. (2005) reporting $\alpha = .88$ and Homburg and Pflesser (2000)
reporting $\alpha = .89$. Wording of items required slight modification for the context of this study. Examples of changes made can be seen in Table 4.9.

Table 4.9 Examples of Changes made to Perceived Organisational Performance Scale

<table>
<thead>
<tr>
<th>Original Scale Item</th>
<th>Item Used in This Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>The overall performance of the business met expectations last year</td>
<td>The overall performance of our international student recruitment department was as expected last year</td>
</tr>
<tr>
<td>In the last three years, relative to your competitors, how has your business unit performed with respect to achieving customer satisfaction</td>
<td>Consider the performance of your international student recruitment department over the last three years. Compared to your competitors, your department has performed better in achieving international student satisfaction.</td>
</tr>
</tbody>
</table>

The constructs and measures taken and/or adapted from the literature are summarised in Table 4.10.

Table 4.10 Existing Measures and Number of Items Used

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition</th>
<th>Used Verbatim or Adapted From</th>
<th>Items Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market orientation</td>
<td>Organisational behaviours concerned with identifying customers’ needs and competitors’ actions, sharing and responding to market information (Gray et al., 1999, p. 234)</td>
<td>Gray et al. (1999).</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jaworski and Kohli (1993).</td>
<td>14</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>Set of shared organisational values that gives rise to the tendency for the organisation to create and use knowledge (Sinkula et al., 1997, p. 309). The degree to which the organisation values knowledge, is open-minded and has a shared vision (Baker &amp; Sinkula, 1999a, p. 299).</td>
<td>Baker and Sinkula (1999b).</td>
<td>18</td>
</tr>
<tr>
<td>Perceived external market effects</td>
<td>The perceived degree of market turbulence, competitive intensity and technological turbulence in the market environment in which the institution operates.</td>
<td>Jaworski and Kohli (1993).</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Miller (1987).</td>
<td>6</td>
</tr>
<tr>
<td>Perceived organisational performance</td>
<td>The perceived degree to which the organisation’s objectives, strategy and market structure are met.</td>
<td>Olson et al. (2005).</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Homburg and Pflesser (2000).</td>
<td>6</td>
</tr>
</tbody>
</table>
4.3.2.3.6 Initial Item Pool

The initial item pool was generated from existing measures as well as a deductive process (refer Figure 4.2). A total of 82 items were derived from previously existing valid and reliable scales while a further 1 item was developed via a deductive process.

This generated a total of 83 items to measure the constructs in this study, to which 8 demographic items were added. The initial item pool, therefore, totalled 91 items. Following the completion of the initial item pool generation the survey development process then focuses on the selection of scaling and formatting.

4.3.2.3.7 Scale and Response Format Selection

Scaling is the process whereby the measure of a variable is expressed as a numerical score and, as such, is appropriate when a researcher seeks to measure an individual’s attitude or opinion (Neuman, 2003). The two purposes for which scales are used are, firstly, to demonstrate the degree of fit between a set of indicators and a construct and, secondly, to assist in the testing of hypotheses (Neuman, 2003). When selecting the scale best suited to the specific measurement need, it is important to consider characteristics such as labelling options, scale poles, balance of scales, response wording and neutral option categories (Kumar et al., 2002). In all instances, the selection of a scale is dependent on the information requirements of the study, the proposed means of administration and the characteristics of the potential respondents (Tull & Hawkins, 1990). Within social research there exist a variety of scales such as Thurstone scaling, the Bogardus Social Distance Scale, the Semantic Differential Scale, the Guttman Scale and the Likert Scale. Of these scales, the Likert Scale is particularly prevalent in marketing research (Lukas, Hair, Bush, & Ortinau, 2004).

The Likert scale generally requires respondents to indicate their level of agreement or disagreement with a given series of statements (Kumar et al., 2002). Likert scales are also referred to as summated scales because a respondent’s individual’s scores can be summed to generate a total score (Neuman, 2003). As such, the value of using a Likert scale is that each statement measures some aspect of a single common factor resulting in a uni-dimensional scale (Kumar et al., 2002).
The Likert scale was adopted for this study for several reasons. Firstly, it provides a summated rating scale (Lukas et al., 2004) while, secondly, it is easily constructed (Foddy, 1993) and cost effective (Tull & Hawkins, 1990). Thirdly, a Likert scale is well suited to self administered and online surveys (Hair et al., 2003) in that it communicates interval properties to respondents, thereby permitting a more rigid data analysis at a parametric level (Robertson & Chetty, 2000). Neuman (2003) suggests that Likert scales function best with four to eight response categories, while Lukas et al. (2004) suggest that an odd number of response categories permits the inclusion of a “neither agree or disagree” category, allowing respondents to adopt a position of neutrality. This study adopted a seven point Likert scale as this has been recommended as optimal for effectively capturing magnitude and direction of responses (Nunnally, 1978) as well as improving reliability (Atuahene-Gima, 1996; Churchill & Peter, 1984).

Finally, consideration was given as to whether to label all response categories or only the end points. Labelling all response categories is argued to increase reliability and validity of the measure (Churchill & Peter, 1984; Krosnick, 1999). This being the case, it was decided to label all response categories for this study. As shown in the following example, the scale response and format adopted in this study is seven points, anchored by strongly disagree and strongly agree. Additionally, to achieve uniformity in the instrument, all existing measures were modified to this format in accordance with Converse and Presser (1986).

We encourage comments and feedback from our international students because they help us do a better job

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
<th>Undecided</th>
<th>Slightly Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

4.3.2.3.8 Measuring ISR Marketing Strategy

A qualitative process was followed in order to explore the method selected to operationalise institutions’ ISR marketing strategy. Ethical clearance was granted prior to the commencement of this process. This method was explored through unstructured, in-depth interviews with international education marketing practitioners from universities and secondary schools. A convergent interviewing approach was
adopted in which the interviewer probed questions about important information raised from each interview (Rao & Perry, 2003). No predetermined number of interviews was set and interviews continued until stability was reached (Glaser & Strauss, 1967; Rao & Perry, 2003). As such, ten interviews were ultimately conducted as convergence was achieved on the themes being reported.

Each of the ten interviews involved a single respondent from an institution and no institution was represented in more than one interview. In each case, the respondent was actively involved in the development and implementation of the institution’s international student marketing strategy. This approach has been justified by previous strategy research (Conant, Mokwa, & Varadarajan, 1990; Morgan, Strong, & McGuinness, 2003). Additionally, the guidelines developed by Huber and Power (1985) were considered when selecting respondents. Ethics approval was obtained prior to the commencement of data collection and written consent was received from each participant prior to interview.

Distinct advantages can be seen in the use of in-depth interviews including greater control over respondent selection resulting in potentially greater context and flexibility in the process of inquiry (Cassell & Symon, 2004) and greater depth of information obtained (Hedges, 1985) through the building of a close rapport and high degree of trust between interviewer and respondent (Webb, 1995). Tull and Hawkins (1990) consider individual in-depth interviews to be particularly appropriate when the respondents are professional people, as is the case in this study.

The Value Discipline strategy typology (Treacy & Wiersema, 1995) was chosen to investigate the prevailing ISR marketing strategy in educational institutions (refer Chapters Two and Three). There is limited empirical implementation of this typology and, as such, there is no empirical agreement as to the way in which the typology is best operationalised. It was decided to operationalise the typology using a method previously used in strategy research, that is, by means of a categorical variable. A self-typing paragraph approach was adopted and respondents were required to read three short paragraphs each describing the key defining characteristics of one Value Discipline strategy. Respondents were then asked to identify which strategy type most closely matched the prevailing ISR marketing
strategy at their institution. The validity of the self-typing paragraph has been established for strategy identification using the Miles and Snow strategy typology (James & Hatten, 1995; Matsuno & Mentzer, 2000; Shortell & Zajac, 1990), but this method has not been used with the Value Discipline strategy typology.

All respondents were able to undertake this task successfully and without difficulty. This means that international education marketing practitioners were able to use the Value Discipline typology to self-identify the ISR marketing strategy within their own institution and this supported the use of this method in the survey. However, on further reflection of the comments made by respondents, it became apparent that although all respondents were able to classify their institution according to the three Value Discipline strategies, a fourth ISR marketing strategy type was prevalent. This strategy emphasised an entrenched method of operation. The strategy encouraged the development of information and operational silos within the international student recruitment department and discouraged external influences. Additionally, the respondents’ comments suggested that this was an active strategic process, not a reactive strategy (Miles & Snow, 1978), the result of being stuck between strategies (Porter, 1980, 1998) or a failure to adopt an international education strategy (Mazzarol & Soutar, 2008). It was decided to investigate the existence and prevalence of this strategy across a larger sample. This strategy is named entrenched isolation and is included in the survey instrument as a fourth strategy. Respondent’s comments supporting the adoption and inclusion of this ISR marketing strategy can be seen in Appendix B. The descriptions of the four ISR marketing strategies used in the survey instrument can be seen in Table 4.11.

Although the final survey was to be administered online (refer Section 4.3.2.1), at this stage the draft survey existed as a pencil and paper document. As such, factors relating to design, sequence and layout are addressed as part of Phase Two of the survey development process (refer Figure 4.2).
Table 4.11  ISR Marketing Strategy Descriptors

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational excellence</td>
<td>At this institution there is a tendency to optimise procedures to minimise costs. Our organisational structure encourages standardised operations. Our systems are integrated with an emphasis on reliable transactions. Our culture rewards efficiency.</td>
</tr>
<tr>
<td>Product leadership</td>
<td>At this institution there is a tendency towards invention and development. Our organisational structure encourages entrepreneurialism. Our systems are results driven. Our culture encourages imagination.</td>
</tr>
<tr>
<td>Customer intimacy</td>
<td>At this institution there is a tendency towards solution development. Our organisational structure encourages delegating decision-making. Our systems are focussed on creating results. Our culture is focussed on relationships.</td>
</tr>
<tr>
<td>Entrenched isolation</td>
<td>At this institution there is a tendency to develop secure departments each with their own knowledge base. Our organisational structure encourages retention of information within each department. Our systems are focussed on individual performance. Our culture encourages individuals to develop competencies in specific areas.</td>
</tr>
</tbody>
</table>

Source: Adapted from Treacy and Wiersema (1995) and developed for this study

4.3.2.4 Survey Development – Phase Two

Phase Two of the survey development process (refer Figure 4.2) involved pre-testing the instrument to reveal any potential issues and problems before administering the survey (McMurray et al., 2004). As this study utilised a self-administered online survey, this pre-testing process was conducted in two stages. Firstly, using a paper copy of the survey, an expert panel determined content validity as well as ensuring there were no ambiguities in terminology. Secondly, prior to administration of the survey, the online version of the survey was pre-tested to reveal potential problems. The following sections discuss these two stages.

4.3.2.4.1 Expert Panel Pre-test

The technique of using an expert panel to pre-test a survey instrument is recognised as an effective and valid method (e.g., Clemens, 2006; Craft, 2004; Reed, Story, & Saker, 2004; Reynolds & Diamantopoulos, 1998) and is argued to identify more problems with questionnaires than other pre-test methods (Blair & Presser, 1992; Presser & Blair, 1994). Additionally, expert panels have been used in previous research investigating international education marketing (Mazzarol, 1998).
Grant and Davis (1997) suggest there are three structural elements to consider when using expert panels. Firstly, panel members should be asked to comment on the degree of extent to which an item is representative of the content (Berk, 1990) and to suggest improvements where needed (Lynn, 1986). Secondly, expert panel members should consider clarity of items (DeVellis, 2003) and ensure that directions provided to respondents and response scales are appropriate. Thirdly, panel members should consider the comprehensiveness of the total instrument to determine whether the complete set of items sufficiently represents the total content domain (Grant & Davis, 1997).

The draft survey, comprising 91 items (82 construct items, 1 categorical item and 8 demographic items) was provided to an expert panel consisting of three international education marketing practitioners and seven marketing academics. An expert panel of ten members falls within the size recommended by Gable and Wolf (1993). Expert panel members were given background information about the study and the constructs being measured and were then asked to consider the survey in terms of item content, item style and comprehensiveness. Based on the expert panel members evaluations several revisions were made to the survey instrument (refer Table 4.12). The following section provides a summary of the expert panel process.

Overall the panel recommended the deletion of a total of ten items from the survey. The majority of these items were contained in the responsiveness dimension of the market orientation construct. In the draft survey, this dimension was measured by fourteen items. The expert panel were concerned that this was the same as the total number of items for the remaining three market orientation dimensions combined (customer orientation, competitor orientation and interfunctional coordination). Subsequently, the panel recommended the adoption of only six items and the deletion of eight items, thereby, bringing this dimension into line with the other market orientation dimensions. Additionally, one item was also deleted from innovativeness (ISR) and perceived external market effects.
Table 4.12 Changes Made to Draft Survey Items for Final Survey

<table>
<thead>
<tr>
<th>Construct</th>
<th>Changes made</th>
<th>Examples</th>
<th>Numbe r of items in final survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>Wording changed</td>
<td>DS: We do a good job integrating the activities FS: Our international student recruitment department does a good job integrating . . .</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Responsiveness</td>
<td>Principles of market segmentation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The product lines we sell</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The activities of the different departments</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>When we find that customers would like us to modify</td>
<td></td>
</tr>
<tr>
<td>Learning Orientation</td>
<td>Wording changed</td>
<td>DS: Once we stop learning we endanger our future FS: Once we stop learning we endanger the future of this institution</td>
<td>18</td>
</tr>
<tr>
<td>Innovativeness (ISR)</td>
<td>Item deleted</td>
<td>Our new product introduction has increased over the last 5 years</td>
<td>5</td>
</tr>
<tr>
<td>Perceived External Market Effects</td>
<td>Item deleted</td>
<td>We cater to many of the same international student markets that we used to in the past</td>
<td>20</td>
</tr>
<tr>
<td>Perceived Organisational Performance</td>
<td>Wording changed</td>
<td>DS: Recruitment activities of our key competitors have become for more hostile FS: Recruitment activities of our key competitors have become for more aggressive</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DS: Legal, political and economic constraints have proliferated FS: In the international education industry, legal, political and economic constraints . . .</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DS: Technological changes provide big opportunities FS: Technological advancements provide big opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No changes</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Total items in final survey 72

4.3.2.5 Online Survey Development Process

As previously discussed (refer Section 4.3.2.1), this study adopted a self-administered online survey. Dillman (2007) suggests that researchers need to incorporate both questionnaire logic and computer logic in the construction, design and implementation of online surveys so that surveys are respondent friendly. Additionally, Couper, Traugott and Lamias (2001) recommend that online surveys use the design elements available via internet as this may assist in maintaining
respondent interest. The online survey tool Survey Monkey (www.surveymonkey.com) was used for the online survey as this provided the required questionnaire and computer logic as well as easily used design features.

The questionnaire was introduced with a welcome screen that included information regarding the nature and purpose of the project, research team and contact person. Also, on this page, respondents were provided with specific information regarding their involvement, assurances of confidentiality as well as avenues should they have questions or complaints. Following this, respondents were presented with the option to proceed and commence the survey. Respondents who opted to proceed were initially presented with three filter questions. These questions were designed to ensure that respondents’ institutions were actively involved in the enrolment and recruitment of international students.

The questionnaire was constructed screen by screen and commenced with demographic items and the ISR marketing strategy selection item. The remaining items related to the constructs measured in this study. For the constructs, each screen comprised pertinent instructions, as well as a bank of questions positioned under a seven point Likert scale (strongly disagree through to strongly agree). Respondents chose their response by clicking on a radio button. The survey was designed so that respondents were required to answer questions before advancing to the next question. Failure to supply an answer resulted in the appearance of an alert box indicating the items that had not received a response. This technique has been shown to assist in reducing the number of non-response items in online surveys (Evans & Mathur, 2005).

Each screen was designed so that the Likert scale response category labels were clearly visible for each item and respondents were not required to scroll up or down the page in order to recall the labels. Each page provided respondents with a progress indicator as this has been demonstrated to improve completion rates (Crawford, Couper, & Lamias, 2001; Van Selm & Jankowski, 2006). Also “Next” and “Previous” boxes were located at the bottom of each page thereby allowing respondents to move freely forwards and backwards through the survey. Delineation of items was through a simple alternation of colours. The combination of these
Several researchers argue the importance of pre-testing the survey using the administration method intended for the main study (Dillon, Madden, & Firtle, 1994; Tull & Hawkins, 1990). The purpose of this pre-test is to identify programming errors as well as presentation and formatting issues (Daley, McDermott, McCormack Brown, & Kittleson, 2003; Graf, 2002). Taking this into account, the survey was pre-tested online by an expert panel consisting of three international education marketing practitioners and three academics. Expert panel members were selected so that both PC and MAC platforms were included in the pre-test. Panel members were informed of the purpose of the research, were asked to complete the survey and also were asked to comment on any design, navigation or programming issues encountered while undertaking the survey. The time taken to complete the survey was between 17 and 25 minutes. As only positive feedback was received, no amendments were made to the online survey and the survey was considered ready to be administered. A copy of the final survey can be seen in Appendix A. This concluded the survey development process (refer Figure 4.2). The next step in the marketing research design process (Kumar et al., 2002) was to consider the sampling plan (refer Figure 4.1).

4.3.2.6 The Sampling Plan
Factors to be considered in designing a sampling plan include target population definition, the sampling frame, determining the sample unit and choice of sampling procedure (McMurray et al., 2004; Neuman, 2003). A purposive sample was considered to be the most appropriate method for this study as only ISR marketing practitioners currently employed in Australian universities or secondary schools were eligible to participate. A database comprising publicly available email addresses for ISR marketing practitioners from Australian universities and secondary schools was compiled. This database was compiled from the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS) (Department of Education Employment and Workplace Relations, 2008) as well as the website of each institution. Therefore, the sampling frame for the current study was all secondary and tertiary education institutions in Australia. Based on the accessibility by email, a non-
probability sample was drawn from the sampling frame resulting in a sample of 1008 email addresses. Proposed analytical techniques were considered next.

4.3.2.7 Anticipated Analysis

It was anticipated that the initial analysis would include a visual inspection of frequency distributions as well as measures of central tendency and dispersion. Factor analysis would then be used to assess the factor structures and internal consistency of the items and to reduce the data into composite factors (Neuman, 2003; Tabachnick & Fidell, 2001). Following this initial analysis, subsequent analysis should be appropriate to test the hypotheses formulated in Chapter Three.

Given the nature of the relationships hypothesised in Chapter Three, Partial Least Squares (PLS) estimation procedure was selected to evaluate the theoretical model presented in Chapter 3, Figure 3.5. PLS is a multivariate analysis technique allowing the empirical assessment of a structural model in conjunction with its measurement model (Wold, 1982). Refer to Chapter 5, Section 5.8 for an in-depth discussion on PLS. PLS is able to generate useful results with both small samples (Tiessen & Linton, 2000) and large samples with many variables (Fornell & Bookstein, 1982; Garthwaite, 1994). Additionally, PLS does not assume multivariate normality (Haenlein & Kaplan, 2004). Composite measures generated from the preliminary measures could be used to test the proposed structural relationships (O'Cass, 2001), thereby addressing the hypotheses as shown in Chapter Three, Figure 3.5.

The preceding section addresses the research approach and research tactics as described in Stage Two of the marketing research design process (Kumar et al., 2002). The final stage of this process involves implementation aspects of the research (refer Figure 4.1).

4.3.3 Implementation

Implementation is the third and final stage of the marketing research design process (refer Figure 4.1). This stage includes a comparison of cost and timing estimates with anticipated value, the collection and analysis of data and, lastly, drawing conclusions and making recommendations (Kumar et al., 2002).
4.3.3.1 Cost and Timing Estimates
Using an online survey provided the benefits of speed and timeliness, low administration cost, researcher control of the sample and ease of data entry (Evans & Mathur, 2005; Van Selm & Jankowski, 2006). As all the survey design work was undertaken by the researcher, the primary monetary costs involved with the survey were estimated to be $50 incurred for hosting the survey on the Survey Monkey website. This was considered to be considerably less than the cost of a ‘paper and pencil’ survey. The survey was accessible for a period of three weeks, from 29th November, 2007 until 21st December 2007. This time frame was chosen to coincide with the end of the Australian academic year. For international education marketing practitioners, this is traditionally a period that is less busy as student enrolments for the following academic year would normally be secured by this time.

4.3.3.2 Data Collection
Evans and Mathur (2005) consider the weaknesses of using online surveys to include respondent perception as junk mail, perceived privacy issues and low response rate. As this study used an online self-administered survey as the data collection method, consideration was given as to ways in which the potential disadvantages of this method could be addressed. Ethical clearance was granted prior to the collection of data.

An individually addressed invitation email was sent to potential respondents identified as part of the process described in Section 4.3.2.6. To increase the credibility of the invitation email and reduce the likelihood of respondents considering it to be spam, this email was sent from the researcher’s university thus giving it an “edu.au” suffix. This immediately identified the email as originating from an educational institution in Australia. Additionally, the subject heading of the email was “International Student Recruitment Research – your help needed” which also encouraged respondents to open the email as it related specifically to their area of activity and called for their assistance. Once opened, the email described the research, encouraged respondents to participate, ensured the confidentiality of responses and provided a direct hyperlink to the survey website. A copy of the invitation email can be seen in Appendix C.
Follow-up emails were planned to address a potentially low response rate. Follow-up contact has been consistently reported to increase response rates in online surveys (Dillman, 2007) although repeated follow-ups may actually annoy respondents and be considered to be spam (Solomon, 2001). Ilieva, Baron and Healey (2002) report average online response rates to be 5.59 days and for this reason two follow-up emails were scheduled to be sent five days and ten days after the initial invitational email was sent.

On completion of the data collection, the marketing research design process (refer Figure 4.1) identifies the final tasks of the implementation stage to include data processing, data analysis and development of recommendations and conclusions (Kumar et al., 2002). Data analysis will be presented in Chapter Five while Chapter Six will present a detailed discussion of the findings and implications.

### 4.4 Conclusion

This chapter described the research methodology and design used for this study. The marketing research design process developed by Kumar et al. (2002) was adopted for this study and provided the outline by which methodological decisions were made. Following the justification for the adoption of a positivist research paradigm, details of the quantitative research approach were outlined. A self-administered online survey method was selected as most appropriate in gathering the required data to address the research hypotheses. This method permits the survey to be easily administered to Australian international education practitioners. Additionally, during the design phase of the survey design, every effort was made to ensure the development of an instrument based on sound psychometric principles to measure the constructs. The implementation stage of the marketing research design process (refer Figure 4.1) will be further discussed in Chapter Five where the data analysis is presented prior to a discussion of the findings in Chapter Six.
Chapter Five

Results

The purpose of the statistical procedures is to assist in establishing the plausibility of the theoretical model and to estimate the degree to which the various explanatory variables seem to be influencing the dependent variables (Cooley, 1978, p. 13).

5.1 Introduction

It is somewhat ironical that the derivation of the word measurement can be traced to the Sanskrit “maya” meaning both measuring and creating illusions (Sureshchandar & Leisten, 2005), thus, reminding the researcher of the importance of substantiating measurement through solid concepts and theories (Flynn, Schroeder, & Sakakibara, 1994). Sureshchandar, Rajendran and Anantharaman (2001) argue that the development of efficient and genuine measures to obtain valid and reliable estimates of constructs and their relationships with each other are an essential aspect in the formation of a fundamental body of knowledge. This process of developing efficient and genuine measures may initially be realized through scale development and refinement resulting from an extensive review of the literature and subsequent identification of critical dimensions which are built on valid and parsimonious definitions. Towards achieving this objective a comprehensive analysis of relevant literature was undertaken in Chapter Two and the central constructs identified, resulting in the Strategic Orientation and Performance Model (SOP) (in Chapter Three) being presented as a theoretical framework upon which the hypotheses of this study are based.

Chapter Four described the methodological process by which the survey instrument was developed, the justification of the adopted data collection method and outlined
the development and administration of the survey. This chapter commences the analysis process by presenting a detailed account of data screening and factor analysis. The remainder of the chapter follows a sequential process of presenting the hypotheses’ results achieved through Partial Least Squares (PLS) analysis. However, initially, a profile of respondents is presented prior to preliminary data analysis.

5.2 Profile of the sample
A sample comprising 311 respondents (representing a response rate of 30.9%) provided the foundation for the empirical results of this study. Of the 311 returned surveys, 9 were deleted due to respondents failing to complete the survey, resulting in a total of 302 responses being used for the data analysis. Of the 302 completed responses, 143 (47.4%) were from international education marketers in the secondary school sector and 159 (52.6%) were from international education marketers in the university sector. An analysis of the ISR marketing strategy for the respondents is shown in Table 5.1.

Table 5.1 Profile of Respondents

<table>
<thead>
<tr>
<th>Sector</th>
<th>Current ISR Marketing Strategy</th>
<th>Count</th>
<th>% of Total</th>
<th>Count</th>
<th>% of Total</th>
<th>Count</th>
<th>% of Total</th>
<th>Count</th>
<th>% of Total</th>
<th>Count</th>
<th>% of Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary School</td>
<td>Operational Excellence</td>
<td>30</td>
<td>9.9%</td>
<td>25</td>
<td>8.3%</td>
<td>50</td>
<td>16.6%</td>
<td>38</td>
<td>12.6%</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>Product Leadership</td>
<td>66</td>
<td>21.9%</td>
<td>31</td>
<td>10.3%</td>
<td>31</td>
<td>10.3%</td>
<td>31</td>
<td>10.3%</td>
<td>159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Customer Intimacy</td>
<td>96</td>
<td>31.8%</td>
<td>56</td>
<td>18.5%</td>
<td>81</td>
<td>26.8%</td>
<td>69</td>
<td>22.8%</td>
<td>302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Entrenched Isolation</td>
<td>96</td>
<td>31.8%</td>
<td>56</td>
<td>18.5%</td>
<td>81</td>
<td>26.8%</td>
<td>69</td>
<td>22.8%</td>
<td>302</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Operational Excellence was the strategy most nominated as the current ISR marketing strategy by 31.8% of respondents, with 9.9% from the secondary school sector and 21.9% from the university sector. Customer Intimacy was nominated as the current ISR marketing strategy by 26.8% of respondents, with 16.6% from the secondary school sector and 10.3% from the university sector. Entrenched Isolation was nominated as the current ISR marketing strategy by 22.8% of respondents, with 12.6% from the secondary school sector and 10.3% from the university sector. Product Leadership was nominated as the current ISR marketing strategy by 18.5% of
respondents, with 8.3% from the secondary school sector and 10.3% from the university sector.

5.3 Preliminary Method of Data Analysis

This section discusses the preliminary evaluation of the data by way of correlation analysis, exploratory factor analysis and reliability measurement. As mentioned in Section 5.2, 9 cases were deleted because they were incomplete. However, of the 302 completed surveys there was no missing data due to the forced-response nature of the survey.

Initially, histograms and box plots for each variable were visually inspected for normality, skew, kurtosis and the presence of outliers. Additionally, the degree of skewness and kurtosis was calculated. The data presented did not appear to be overly problematic with statistics mostly falling within acceptable ranges. However, items v1, v2, and v3 displayed high negative skewness (greater than -2.00) while items v1, v2, v3 and v21 possessed high positive kurtosis values (greater than +2.00) suggesting a non-normal distribution for these items (Hair et al., 1998). The means, standard deviations, skew and kurtosis values for each of the variables appear in Appendix D.

After inspecting the data for normality, the next step was to assess the factor structures and internal consistency of the items. As the underlying relationships between the observed and latent variables was not predetermined, exploratory factor analysis was identified as appropriate for data analysis at this stage (Hair et al., 1998; Tabachnick & Fidell, 2001). This method has been used extensively in marketing research (see for example Cavusgil & Zou, 1994; Clarke, 2007; Grace & O’Cass, 2001; Gray et al., 1998; Souchon, Cadogan, Procter, & Dewsnap, 2004).

The preliminary analysis procedure is depicted in Table 5.2. As part of this procedure, the data underwent a number of evaluation procedures, such as correlation analysis, EFA and reliability analysis.
Prior to conducting factor analysis it is important to examine the data to ascertain that sufficient relationships exist between the variables (Comrey, 1978; Fabrigar, Wegener, MacCallum, & Strahan, 1999). This may be accomplished by calculating measures such as Kaiser-Meyer Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity (Hair et al., 1998; Tabachnick & Fidell, 2001). KMO compares the size of the observed correlation coefficients with the magnitude of the partial correlation coefficients and is calculated as a value between 0 and 1. A value of .60 and higher is considered appropriate for factor analysis (Tabachnick & Fidell, 2001), whereas values of .80 and above are considered to be meritorious (Hair et al., 1998) and values of .90 and above are considered excellent (Kaiser & Rice, 1974).

5.3.2 Bartlett’s Test for Sphericity
Bartlett’s Test for Sphericity examines the entire correlation matrix to statistically test that significant correlations exist among at least some of the variables. The hypothesis tested in this instance is that the correlation matrix is an identity matrix where each variable correlates perfectly with itself but has no correlation with the other variables (Malhotra, 1999). Despite a recommendation by Tobias and Carlson (1969) to apply Bartlett’s Test prior to factor analysis, the test can be sensitive to sample size (Knapp & Swoyer, 1967) and is not recommended to be used in isolation unless there are fewer than five cases per variable (Tabachnick & Fidell, 2001).

5.3.3 Correlations
Examination of the correlation matrix forms an important part of many factor analysis studies in marketing (Stewart, 1981). Therefore, following the KMO calculation and Bartlett’s test, the bivariate correlations contained within the matrix were closely inspected (refer Table 5.2). As factor analysis is concerned with the homogeneity of items (Stewart, 1981), correlations should exceed .30 (Hair et al., 1998) and should
not exceed .90 (Tabachnick & Fidell, 2001) to be sufficiently robust and appropriate for factor analysis. Items exhibiting a substantial number of correlations less than .30 or greater than .90 were removed from further data analysis.

5.3.4 Factor Loadings

Once the data had been verified as suitable, the EFA was conducted (refer Table 5.2) to determine the factor structures of the data and loadings of items. Empirical assessment of construct validity was assessed through the examination of factor structures, unidimensionality and internal consistency using analytical guidelines recommended by Anderson and Gerbing (1988), Hair et al. (1998), and O'Leary-Kelly and Vokurka (1998). Anticipating the likelihood that the constructs may be related to one another, and following the procedure used by Gray et al. (1998), EFA was conducted via principal-components factor analysis using an orthogonal or oblique rotation depending on the dimensionality of the construct (Costello & Osborne, 2005; Fabrigar et al., 1999). The unidimensional construct (innovativeness ISR) was factor analysed using a varimax rotation while multidimensional constructs (market orientation, learning orientation, perceived external market effects and perceived organisational performance) were factor analysed using a direct oblimin rotation.

Following a body of advice to consider multiple criteria regarding the retention of factors (Comrey, 1978; Ford, MacCallum, & Tait, 1986; Hair et al., 1998; Shi & Wright, 2001), factors with eigenvalues greater than 1 were identified and items with factor loadings less than .50 were deleted. Additionally, items exhibiting cross-loadings greater than .40 were also removed from the analysis (O'Cass, 2002). Following these procedures the data was then subject to reliability analysis.

5.3.5 Reliability

Reliability is defined as “the proportion of variance attributable to the true score of the latent variable” (DeVellis, 2003, p. 27) and refers to the degree to which measures yield consistent results (Malhotra, 1999; Peter, 1979). Reliability tests include test-retest method, equivalent forms, split-halves method and internal consistency method. Of these methods, the internal consistency method requires only a single sample, thus limiting possible carry-over effects (Bollen, 1989), is operationalised as the degree of
inter-correlations among the items that constitute a scale (Hair et al., 1998; Nunnally, 1978), and is most commonly estimated via measure called Cronbach’s alpha (Peter, 1979). While an alpha value of .70 is considered by many to be an appropriate lower limit (Hair et al., 1998; Nunnally, 1978), others have argued .60 may suffice for exploratory research (Hair et al., 1998). For the present dataset all scales were tested using Cronbach’s alpha in order to determine if they were reliable measures of the constructs. Items meeting the alpha criteria of .70 (Hair et al., 1998; Nunnally, 1978) were considered reliable indicators of the constructs. The preceding discussion provides a detailed description of the preliminary data analysis undertaken and is the basis upon which the ensuing preliminary results are presented.

5.4 Preliminary Results

The proposed SOP Model (refer Chapter 3, Figure 3.5) depicts five constructs to be measured within the model, these being market orientation, learning orientation, perceived external market effects, innovativeness (ISR) and perceived organisational performance. The following preliminary analysis adheres to the procedure as displayed in Table 5.2 to measure the psychometric properties of each scale.

5.4.1 Preliminary Analysis – Market Orientation

The market orientation construct was measured using twenty items (v1 to v20) and comprised the dimensions customer orientation (v1 to v5), competitor orientation (v6 to v8), inter-functional coordination (v9 to v14) and responsiveness (v15 to v20). These items were subject to a preliminary analysis approach (refer Figure 5.1), the results of which appear in Table 5.3. A significant probability level (p< .001) for the Bartlett’s Test and high KMO statistic (.90) indicate sufficient correlations exist between the variables for factor analysis to ensue.

Bivariate correlations were then inspected. Within their specific market orientation dimensions items v15, v17 and v20 displayed poor correlations with other items and, thus, were deleted from further analysis. Factor analysis was conducted on the remaining items, producing a four factor structure. Item v16 showed a poor factor loading and was removed from the analysis at this stage. The subsequent factor analysis produced a three factor structure with item loadings ranging from .62 to .93 and the variance explained was 76.47%. Item communalities were inspected and all
were above the required level of .40 (Costello & Osborne, 2005). Cronbach’s alpha of .95 was then calculated indicating good reliability of the scale.

Table 5.3  Preliminary Data Analysis – Market Orientation

<table>
<thead>
<tr>
<th>Item</th>
<th>Wording</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Correlation range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V11</td>
<td>Discuss student needs</td>
<td>.90</td>
<td>.34</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>V12</td>
<td>Regularly interact</td>
<td>.89</td>
<td>.32</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>V9</td>
<td>Information is shared</td>
<td>.86</td>
<td>.39</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>V10</td>
<td>Regular meetings</td>
<td>.83</td>
<td>.31</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>V14</td>
<td>Integrating activities</td>
<td>.68</td>
<td>.39</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>V13</td>
<td>Departments involved</td>
<td>.62</td>
<td>.33</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>V2</td>
<td>An important part</td>
<td>.93</td>
<td>.27</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>V3</td>
<td>Strong commitment</td>
<td>.91</td>
<td>.22</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>V4</td>
<td>Ways to create value</td>
<td>.84</td>
<td>.40</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>V1</td>
<td>Encourage comments</td>
<td>.80</td>
<td>.30</td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>V5</td>
<td>Measure satisfaction</td>
<td>.71</td>
<td>.37</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>V18</td>
<td>Implement response</td>
<td>.87</td>
<td>.27</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td>V19</td>
<td>Quick to respond</td>
<td>.82</td>
<td>.28</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td>V8</td>
<td>Competitor activity</td>
<td>.80</td>
<td>.22</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>V7</td>
<td>Frequently collect</td>
<td>.75</td>
<td>.28</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>V6</td>
<td>Regularly monitor</td>
<td>.69</td>
<td>.35</td>
<td>.87</td>
<td></td>
</tr>
</tbody>
</table>

Reliability  .95  KMO  .90  Variance explained  76.47  Bartlett’s  .000

* Complete correlation matrix can be seen in Appendix E

5.4.2  Preliminary Analysis – Learning Orientation

The learning orientation construct was measured using eighteen items (v21 to v38) and comprised the dimensions commitment to learning (v21 to v26), shared vision (v27 to v32) and open-mindedness (v33 to v38). These items were subject to the preliminary analysis approach shown in Table 5.2, the results of which appear in Table 5.4. A significant probability level (p< .001) for the Bartlett’s Test and high KMO statistic (.89) indicate sufficient correlations exist between the variables for factor analysis to ensue.

Bivariate correlations were then inspected. Within their specific learning orientation dimensions items v25, v32 and v34 displayed poor correlations with other items and, thus, were deleted from further analysis. Factor analysis was conducted on the
remaining items, producing a two factor structure. Item v37 exhibited high cross loadings and, as such, was removed from further analysis. Items v33, v35, v36 and v38 exhibited poor factor loadings and were removed from further analysis. The subsequent factor analysis again produced a two factor structure with item loadings ranging from .76 to .96 and the variance explained was 79.21%. Item communalities were inspected and all were above the required level of .40 (Costello & Osborne, 2005). Cronbach’s alpha of .94 was then calculated indicating good reliability of the scale.

Table 5.4 Preliminary Data Analysis – Learning Orientation

<table>
<thead>
<tr>
<th>Item</th>
<th>Wording</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Correlation range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V21</td>
<td>Basic values</td>
<td>.95</td>
<td>.41</td>
<td>.77</td>
</tr>
<tr>
<td>V23</td>
<td>Staff learning</td>
<td>.91</td>
<td>.47</td>
<td>.81</td>
</tr>
<tr>
<td>V22</td>
<td>Ability to learn</td>
<td>.83</td>
<td>.47</td>
<td>.73</td>
</tr>
<tr>
<td>V26</td>
<td>Collective wisdom</td>
<td>.83</td>
<td>.48</td>
<td>.82</td>
</tr>
<tr>
<td>V24</td>
<td>Learning is seen</td>
<td>.78</td>
<td>.50</td>
<td>.82</td>
</tr>
<tr>
<td>V29</td>
<td>Staff are committed</td>
<td>.96</td>
<td>.41</td>
<td>.80</td>
</tr>
<tr>
<td>V28</td>
<td>Total agreement</td>
<td>.95</td>
<td>.46</td>
<td>.80</td>
</tr>
<tr>
<td>V31</td>
<td>Leadership sharing</td>
<td>.86</td>
<td>.48</td>
<td>.79</td>
</tr>
<tr>
<td>V27</td>
<td>Well expressed concept</td>
<td>.77</td>
<td>.47</td>
<td>.79</td>
</tr>
<tr>
<td>V30</td>
<td>Staff as partners</td>
<td>.76</td>
<td>.51</td>
<td>.77</td>
</tr>
</tbody>
</table>

| Reliability | .94 | KMO | .89 |
| Variance explained | 79.22 | Bartlett’s | .000 |

* Complete correlation matrix can be seen in Appendix E

5.4.3 Preliminary Analysis – Innovativeness (ISR)

Five items were used to measure the innovativeness (ISR) construct (v39 to v43). These items were subject to the preliminary analysis approach shown in Table 5.2, the results of which appear in Table 5.5. A significant probability level (p< .001) for the Bartlett’s Test and high KMO statistic (.83) indicate sufficient correlations exist between the variables for factor analysis to ensue.

Bivariate correlations were then inspected. Item v43 displayed poor correlation with the other items and item v39 displayed a substantial number of correlations greater than .90. Both items were deleted from the analysis at this point. Factor analysis was conducted on the remaining items, producing a single factor structure with item
loadings ranging from .88 to .96 and the variance explained was 85.72%. Item communalities were inspected and all were above the required level of .40 (Costello & Osborne, 2005). Cronbach’s alpha of .91 was then calculated indicating good reliability of the scale.

Table 5.5 Preliminary Data Analysis – Innovativeness (ISR)

<table>
<thead>
<tr>
<th>Item</th>
<th>Wording</th>
<th>Factor 1</th>
<th>Correlation range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V41</td>
<td>Is creative</td>
<td>.96</td>
<td>.77 - .89</td>
</tr>
<tr>
<td>V40</td>
<td>Seeks out new ways</td>
<td>.93</td>
<td>.70 - .89</td>
</tr>
<tr>
<td>V42</td>
<td>Is often the first to market</td>
<td>.88</td>
<td>.70 - .77</td>
</tr>
</tbody>
</table>

Reliability .91  KMO .70  Variance explained 85.72  Bartlett’s 000

* Complete correlation matrix can be seen in Appendix E

5.4.4 Preliminary Analysis – Perceived External Market Effects

The perceived external market effects construct was measured using twenty items (v44 to v63) and comprised the dimensions market turbulence (v44 to v49), competitive intensity (v50 to v59) and technological turbulence (v60 to v63). These items were subject to the preliminary analysis approach shown in Table 5.2, the results of which appear in Table 5.6. A significant probability level (p< .001) for the Bartlett’s Test and high KMO statistic (.84) indicate sufficient correlations exist between the variables for factor analysis to ensue.

Bivariate correlations were then inspected. Within their specific market effects dimensions items v48, v55 and v63 displayed poor correlations with other items and were deleted from the analysis. Factor analysis was conducted on the remaining items, producing a four factor structure. Items v49, v50, v59 exhibited cross loadings greater than .40 and were removed from the analysis at this stage. Items v51 and v54 exhibited low factor loadings and were also removed from the analysis. The subsequent factor analysis produced a four factor structure with item loadings ranging from .67 to .92 and the variance explained was 76.74%. Item communalities were inspected and all were above the required level of .40 (Costello & Osborne, 2005). Cronbach’s alpha of .89 was then calculated indicating good reliability of the scale.
Table 5.6  Preliminary Data Analysis – Perceived External Market Effects

<table>
<thead>
<tr>
<th>Item</th>
<th>Wording</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Correlation range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V44</td>
<td>Preferences change</td>
<td>.92</td>
<td></td>
<td></td>
<td>.34</td>
<td>.82</td>
</tr>
<tr>
<td>V45</td>
<td>New programs</td>
<td>.87</td>
<td></td>
<td></td>
<td>.32</td>
<td>.82</td>
</tr>
<tr>
<td>V47</td>
<td>Different needs</td>
<td>.70</td>
<td></td>
<td></td>
<td>.39</td>
<td>.77</td>
</tr>
<tr>
<td>V46</td>
<td>New markets</td>
<td>.67</td>
<td></td>
<td></td>
<td>.31</td>
<td>.78</td>
</tr>
<tr>
<td>V53</td>
<td>Price competition</td>
<td></td>
<td>.91</td>
<td></td>
<td>.39</td>
<td>.73</td>
</tr>
<tr>
<td>V52</td>
<td>Can match readily</td>
<td></td>
<td>.80</td>
<td></td>
<td>.33</td>
<td>.73</td>
</tr>
<tr>
<td>V60</td>
<td>Technology changing</td>
<td></td>
<td>.87</td>
<td></td>
<td>.27</td>
<td>.86</td>
</tr>
<tr>
<td>V61</td>
<td>Big opportunities</td>
<td></td>
<td>.85</td>
<td></td>
<td>.22</td>
<td>.86</td>
</tr>
<tr>
<td>V62</td>
<td>New product ideas</td>
<td></td>
<td>.81</td>
<td></td>
<td>.40</td>
<td>.83</td>
</tr>
<tr>
<td>V56</td>
<td>Less predictable</td>
<td></td>
<td>.89</td>
<td></td>
<td>.30</td>
<td>.67</td>
</tr>
<tr>
<td>V57</td>
<td>More aggressive</td>
<td></td>
<td>.85</td>
<td></td>
<td>.37</td>
<td>.83</td>
</tr>
<tr>
<td>V58</td>
<td>More areas</td>
<td></td>
<td>.69</td>
<td></td>
<td>.27</td>
<td>.72</td>
</tr>
</tbody>
</table>

Reliability  .89   KMO  .84
Variance explained  76.74   Bartlett’s  .000

* Complete correlation matrix can be seen in Appendix E

5.4.5  Preliminary Analysis – Perceived Organisational Performance

The perceived organisational performance construct was measured using nine items (v64 to v72) and comprised the dimensions overall departmental performance (v64 to v66) and perceived market performance (v67 to v72). These items were subject to the preliminary analysis approach shown in Table 5.2, the results of which appear in Table 5.7. A significant probability level (p< .001) for the Bartlett’s Test and high KMO statistic (.86) indicate sufficient correlations exist between the variables for factor analysis to ensue.

Bivariate correlations were then inspected. Item v72 exhibited a high factor loading and was removed from the analysis at this stage. Item v64 exhibited a low factor loading and was also removed from further analysis. Factor analysis was conducted on the remaining items, producing a two factor structure with item loadings ranging from .71 to .99 and the variance explained was 86.67%. Item communalities were inspected and all were above the required level of .40 (Costello & Osborne, 2005). Cronbach’s alpha of .93 was then calculated indicating good reliability of the scale. Having followed the sequential process of preliminary analysis as shown in Table 5.2,
the common method variance, convergent validity and discriminant validity then warranted investigation.

<table>
<thead>
<tr>
<th>Item</th>
<th>Wording</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Correlation range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V72</td>
<td>Securing market share</td>
<td>.99</td>
<td>.53</td>
<td>.88</td>
</tr>
<tr>
<td>V65</td>
<td>Exceeded competitors</td>
<td>.93</td>
<td>.45</td>
<td>.78</td>
</tr>
<tr>
<td>V71</td>
<td>Desired growth</td>
<td>.83</td>
<td>.61</td>
<td>.88</td>
</tr>
<tr>
<td>V70</td>
<td>Attracting new students</td>
<td>.71</td>
<td>.61</td>
<td>.85</td>
</tr>
<tr>
<td>V68</td>
<td>Providing value</td>
<td>.96</td>
<td>.49</td>
<td>.87</td>
</tr>
<tr>
<td>V67</td>
<td>Achieving satisfaction</td>
<td>.94</td>
<td>.50</td>
<td>.87</td>
</tr>
<tr>
<td>V69</td>
<td>Retaining students</td>
<td>.90</td>
<td>.45</td>
<td>.83</td>
</tr>
</tbody>
</table>

Reliability: .93  KMO: .86
Variance explained: 86.67  Bartlett’s: .000

* Complete correlation matrix can be seen in Appendix E

5.5  Common Method Variance
As single sources of information can introduce spurious relationships among the variables, and as this study collected data via the same method (self-report scales), the need to test for common method variance was warranted. This test was conducted in accordance with Harmon’s one factor test (Igbaria, Zinatelli, Cragg, & Cavaye, 1997; Podsakoff & Organ, 1986) where all items, presumably measuring a variety of different constructs, were subjected to a single factor analysis. Using this approach, 10 factors were extracted with eigenvalues greater than 1. The first factor explained 42.26% of the variance and the total variance explained was 79.53%. As there was not one factor (or a common factor underlying the data) and as the majority of the variance was not accounted for by one general factor, a substantial amount of common method variance was not evident.

5.6  Convergent Validity
Fornell and Larcker (1981) argue that convergent validity is achieved if the average variance explained (AVE) in items by their respective constructs is greater than the variance unexplained (i.e., AVE> .05). Therefore, in order to assess the constructs (factors) for convergent validity, the corrected item-total correlations were used to calculate the average variance explained. This resulted in all factors having an
average variance explained (AVE) greater than or equal to .50, therefore meeting the recommended criteria for convergent validity. The calculated AVE for each of the factors is as follows – market orientation (.70), learning orientation (.77), innovativeness (ISR) (.83), perceived external market effects (.61), and perceived organisational performance (.79). Discriminant validity was assessed after the formation of composite measures and is discussed in Section 5.7.1.

5.7 Composite Measures
Combining several individual variables to form a single composite measure is common research practice and has theoretical and empirical foundations in disciplines such as sociology, psychometric theory and marketing (Hair et al., 1998). The benefits of such a procedure are twofold in that, firstly, it provides a means of attempting to reduce measurement error by using multiple indicators thereby reducing the reliance on a single response. Secondly, the composite measure represents multiple facets of a given concept within a single measure, thus providing a richer description of concepts while also maintaining parsimony in the number of variables in multivariate models (Hair et al., 1998). Composite measures are developed by computing an average for the combined total of variables that have high loadings on the factor, thereby, generating an average or typical response. As this procedure is common practice in marketing and strategy research (e.g., Calantone et al., 2002; Cavusgil & Zou, 1994; Gray et al., 1998), and due to the applicability of composite measures in PLS to test structural relationships (O'Cass, 2001), composite measures were computed. The means and standard deviations of the resulting composite measures are shown in Table 5.8.

Table 5.8 Means and Standard Deviations of Composite Measures

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>4.63</td>
<td>1.37</td>
</tr>
<tr>
<td>Learning Orientation</td>
<td>4.80</td>
<td>1.36</td>
</tr>
<tr>
<td>Innovativeness (ISR)</td>
<td>4.50</td>
<td>1.53</td>
</tr>
<tr>
<td>Perceived External Market Effects</td>
<td>4.32</td>
<td>0.96</td>
</tr>
<tr>
<td>Perceived Organisational Performance</td>
<td>4.69</td>
<td>1.25</td>
</tr>
</tbody>
</table>
5.7.1 Discriminant Validity
Having computed the composite measures, an assessment of discriminant validity as recommend by Gaski (1984) was initiated. Gaski (1984) argues that if the correlation between two composite constructs is not higher than their respective reliability estimates, then discriminant validity exists. Therefore, construct correlations were examined and compared to the reliabilities calculated via Cronbach’s alpha in the preliminary data analysis (refer Table 5.2). Correlations ranged from .22 to .89 and the reliabilities ranged from .89 to .95. The comparison of individual bivariate correlations between constructs revealed that no correlations were higher than their respective reliabilities. This being the case discriminant validity was verified.

Having completed preliminary data screening and analysis, all scale items retained for further analysis are argued to be both valid and reliable measures. As previously discussed in Chapter Four, face validity and content validity was ensured through a detailed analysis of the conceptual and empirical literature and further validated through the use of expert panels. In addition, the preliminary data analysis approach (refer Table 5.2) was adopted to address issues such as construct validity and reliability. Furthermore, the preliminary analysis provided an overall evaluation of the data to identify any violations to the assumptions underlying the intended analysis. The computation of composite measures, the verification of convergent and discriminant validity and a test for common method variance completed the final phase of the preliminary data analysis. The ensuing analysis via PLS allows the proposed model (refer Chapter 3, Figure 3.5) to be tested and provides the results of the hypotheses posed in this study.

5.8 Partial Least Squares
Partial Least Squares (PLS) is a multivariate analysis technique allowing the empirical assessment of a structural model in conjunction with its measurement model (Wold, 1982). Although LISREL is perhaps the best known causal modelling technique (Hagedoorn & Schakenraad, 1994; Shook, Ketchen, Hult, & Kacmar, 2004) there are indications of increasing use of PLS applications within the marketing strategy, market orientation and learning orientation literatures (e.g., Andreou & Bontis, 2007; Green & Ryans, 1990; Hsu, 2007; Hulland, 1999; Menguc, Auh, & Shih, 2007; O'Cass & Julian, 2003; Weerawardena, O'Cass, & Julian, 2006).
Developed by Wold (1981) as an alternative to the covariance-fitting approach, the component-based PLS approach avoids the problems of factor indeterminacy and improper solutions associated with maximum likelihood LISREL, as well as difficulties associated with violations of multivariate normality (Chin, Marcolin, & Newsted, 2003; Fornell & Bookstein, 1982). PLS has been found to be highly robust with respect to multicollinearity and skew (Cassel, Hackl, & Westlund, 2000; Chin et al., 2003; Haenlein & Kaplan, 2004) as well as with small sample sizes (Chin et al., 2003; Green & Ryans, 1990). Additionally, PLS is well suited to situations in which the number of variables and the error variances are both large (Chin et al., 2003; Garthwaite, 1994).

In PLS, variables (predictor, moderator and dependent) are viewed as latent constructs and are measured indirectly via multiple indicators (Chin et al., 2003) as well as by antecedent and consequent constructs (Bontis, 1998). PLS consists of three sets of relations: the inner model, the outer model, and weight relations (Chin, 1998b; Fornell & Cha, 1994). The inner model (the structural model) illustrates the relationship between different latent constructs based on substantive theory while the outer model (the measurement model) depicts the relationship between latent variables and respective indicators (Chin, 1998b). Both reflective and formative indicators can be specified in the outer model (Fornell & Cha, 1994). Reflective indicators imply a construct where the items are expressed as a function of the construct while formative indicators imply a construct where the items form the construct (Bontis, 1998). Lastly, the weight relations define the estimated latent constructs as weighted aggregates of the observed variables (Vandenbosch, 1996).

At the conceptual core of PLS, and guided by theory, is a combination of principal components analysis (Vandenbosch, 1996), relating measures to constructs, and path analysis (Bontis, 1998), relating to causal links between constructs. The objective in PLS is to maximise the explanation variance and, therefore, the model is considered to perform well if the $R^2$ and the relationships among constructs are significant (Bontis, 1998).

Detailed descriptions of the PLS algorithms can be found in the literature (e.g., Fornell & Cha, 1994; Wold, 1985), however, essentially the core of the PLS algorithm
follows a two-step process of outside approximation and inside approximation (Cassel et al., 2000). Outside approximation involves the estimation of case-values of the latent variables as weighted means of the indicators. This is undertaken independently for each block of manifest variables and the related latent variable.

If the relation is outwards directed or reflective, the latent variables are similar to principal components of the indicators in the corresponding block; the weights are the covariances between the latent variable and the indicators. The case-values represent the best predictors. For an inwards directed or formative model, the regression coefficients between the latent variable and indicators are used as weights. All variables are normalized to have mean zero (Cassel et al., 2000, p. S902).

Inside approximation involves the estimation of improved values of the case-value of the latent variables obtained as a weighted aggregate of the latent variables that are related in the theoretical model (Cassel et al., 2000). Numerous weighting schemes exist such as factor weighting, centroid weighting and path weighting (Fornell & Cha, 1994).

In summary, PLS calculates parameters using least squares estimations and is able to generate useful results with both small samples (Tiessen & Linton, 2000) and large samples with many variables (Fornell & Bookstein, 1982; Garthwaite, 1994). Additionally, PLS does not assume multivariate normality (Haenlein & Kaplan, 2004) nor provides unbiased estimates (Tiessen & Linton, 2000). Due to the non-normal multivariate distribution of the data collected for this study as well as the appropriateness of PLS for testing theories in the early stages of development (Fornell & Bookstein, 1982), combined with an increasing acceptance of the technique within the marketing genre, PLS was selected as the analytical tool to obtain the results which address the hypotheses of this study. Specifically, PLS graph (Chin, 1998b) was used in this study.
5.9 Overall Model Results

Table 5.9 shows the results pertaining to H1, H2, H3, H4, H5, H6 and H7 and includes the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, $R^2$ and critical ratios. The AVA for the endogenous variables was .61 and the individual $R^2$ are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios are greater than 1.64 (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O'Cass, 2005) and, therefore, are all significant. The results indicate that all hypotheses are supported.

Furthermore, the data shows that 63% of the variance in innovativeness (ISR) is explained by market orientation, learning orientation and perceived external market effects, while market orientation, learning orientation, perceived external market effects and innovativeness (ISR) explain 59% of the variance in perceived organisational performance.

Table 5.9 PLS Results for the Theoretical Model

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>$R^2$</th>
<th>Critical Ratio$^ab$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2</td>
<td>.17</td>
<td>.63</td>
<td>2.90*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5</td>
<td>.10</td>
<td></td>
<td>1.93*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7</td>
<td>.63</td>
<td></td>
<td>12.19*</td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1</td>
<td>.35</td>
<td>.59</td>
<td>4.71*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3</td>
<td>.29</td>
<td></td>
<td>4.49*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4</td>
<td>.13</td>
<td></td>
<td>2.51*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6</td>
<td>.15</td>
<td></td>
<td>2.98*</td>
</tr>
</tbody>
</table>

AVA$^c$ .61

$^a$ Significance indicated by *

$^b$ Bootstrap estimate divided by bootstrap standard error

$^c$ Average Variance Accounted for.

5.9.1 Summary of Results H1 to H7

The preceding analysis of the proposed model revealed support for all hypotheses posed within the model. The result of hypotheses testing are summarised in Table
5.10. The proposed model showing standardised path coefficients and $R^2$ values for endogenous variables is presented in Figure 5.1.

### Table 5.10 Results of Hypothesis Testing

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Innovativeness (ISR) has a significant positive effect on perceived organisational performance.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Perceived external market effects have a significant positive effect on innovativeness (ISR).</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived external market effects have significant positive effect on perceived organisational performance.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>Market orientation has a significant positive effect on perceived organisational performance.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>Market orientation has a significant positive effect on innovativeness (ISR).</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>Learning orientation has a significant positive effect on perceived organisational performance.</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>Learning orientation has a significant positive effect on innovativeness (ISR).</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**Figure 5.1 – Proposed Model Showing Results of Analysis**

The analysis, thus far, addresses hypotheses H1 to H7. Two additional hypotheses are also proposed in order to investigate the robustness of the structural model for different ISR marketing strategy types and different education sectors. Hypothesis H8 considers the extent to which the structural model differs across ISR marketing strategy types, while hypothesis H9 investigates differences across education sectors. The ensuing analysis is presented to address these hypotheses.
5.9.2 Results – Hypothesis H8
In order to test for differences in the proposed model across strategy types, the data file was split into four groups – data collected with reference to international student recruitment strategy type. This resulted in data files containing 96 cases (Operational Excellence Strategy), 56 cases (Product Leadership Strategy), 81 cases (Customer Intimacy Strategy) and 69 cases (Entrenched Isolation Strategy). Each data file was then analysed separately via PLS\(^2\) in the same fashion as the previous analysis for the overall model. The results of these separate analyses are initially presented prior to making a comparative analysis.

5.9.2.1 Model Results – Operational Excellence Strategy
Table 5.11 presents the PLS analysis for the data pertaining to the strategy identified as operational excellence by showing the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, \(R^2\) and critical ratios. All numbered hypotheses contain an additional “(oe)” which denotes the use of data pertaining only to the strategy identified as operational excellence in this analysis.

The AVA for the endogenous variables was .61 and the individual \(R^2\) are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O’Cass, 2005) are all significant except for H2(oe) and H4(oe) (<1.64). The results indicate that H1(oe), H3(oe), H5(oe), H6(oe) and H7(oe) are supported. However, the results indicate that H2(oe) and H4(oe) are not supported. Figure 5.2 presents the proposed model showing standardised path coefficients and \(R^2\) values for endogenous variables.

Furthermore, the data shows that 56% of the variance in innovativeness (ISR) is explained by market orientation, learning orientation and perceived external market effects, while market orientation, learning orientation, perceived external market effects and innovativeness (ISR) explain 65% of the variance in perceived organisational performance.

\(^2\) PLS has been demonstrated to accommodate small sample sizes of 10 times the largest number of structural paths to any one construct (Majchrzak, Beath, Lim, & Chin, 2005). Therefore, for the current study the minimum required sample size is 40.
Table 5.11  PLS Results for the Theoretical Model – Operational Excellence Strategy

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>R²</th>
<th>Critical Ratio¹ᵇ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2(oe)</td>
<td>.04</td>
<td>.56</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5(oe)</td>
<td>.26</td>
<td></td>
<td>2.18*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7(oe)</td>
<td>.54</td>
<td></td>
<td>4.14*</td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1(oe)</td>
<td>.44</td>
<td>.65</td>
<td>4.99*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3(oe)</td>
<td>.34</td>
<td></td>
<td>2.52*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4(oe)</td>
<td>.01</td>
<td></td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6(oe)</td>
<td>.25</td>
<td></td>
<td>2.91*</td>
</tr>
</tbody>
</table>

AVA⁺ᶜ  .61

* Significance indicated by *
⁻ Bootstrap estimate divided by bootstrap standard error
⁺ Average Variance Accounted for.

Figure 5.2   Model Results for Operational Excellence Strategy

5.9.2.2 Model Results - Product Leadership Strategy

Table 5.12 presents the PLS analysis for the data pertaining to the strategy identified as product leadership by showing the standardised path coefficients between the
exogenous and endogenous variables, average variance accounted (AVA) for, $R^2$ and critical ratios. All numbered hypotheses contain an additional “(pl)” which denotes the use of data pertaining only to the strategy identified as operational excellence in this analysis.

The AVA for the endogenous variables was .78 and the individual $R^2$ are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O’Cass, 2005) are significant for H1(pl), H2(pl), H3(pl) and H7(pl) but not for H4(pl), H5(pl) and H6(pl) (<1.64). The results indicate that H1(pl), H2(pl), H3(pl) and H7(pl) are supported. However, the results indicate that H4(pl), H5(pl) and H6(pl) are not supported.

Furthermore, the data shows that 87% of the variance in innovativeness (ISR) is explained by market orientation, learning orientation and perceived external market effects, while market orientation, learning orientation, perceived external market effects and innovativeness (ISR) explain 69% of the variance in perceived organisational performance. Figure 5.3 presents the proposed model showing standardised path coefficients and $R^2$ values for endogenous variables.

### Table 5.12 PLS Results for the Theoretical Model – Product Leadership Strategy

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>$R^2$</th>
<th>Critical Ratio$^{ab}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2(pl)</td>
<td>.30</td>
<td>.87</td>
<td>2.87*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5(pl)</td>
<td>.01</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7(pl)</td>
<td>.71</td>
<td>5.79*</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1(pl)</td>
<td>.47</td>
<td>.69</td>
<td>1.88*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3(pl)</td>
<td>.30</td>
<td>1.70*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4(pl)</td>
<td>.35</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6(pl)</td>
<td>.24</td>
<td>0.65</td>
<td></td>
</tr>
</tbody>
</table>

AVA$^c$ .78

$^a$ Significance indicated by *
$^b$ Bootstrap estimate divided by bootstrap standard error
$^c$ Average Variance Accounted for.
5.9.2.3 Model Results – Customer Intimacy Strategy

Table 5.13 presents the PLS analysis for the data pertaining to the strategy identified as customer intimacy by showing the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, $R^2$ and critical ratios. All numbered hypotheses contain an additional “(ci)” which denotes the use of data pertaining only to the strategy identified as customer intimacy in this analysis.

The AVA for the endogenous variables was .73 and the individual $R^2$ are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O’Cass, 2005) are significant for H1(ci), H4(ci) and H7(ci) but not for H2(ci), H3(ci), H5(ci) and H6(ci) (<1.64). The results indicate that H1(ci), H4(ci) and H7(ci) are supported. However, the results indicate that H2(ci), H3(ci), H5(ci) and H6(ci) are not supported.

Furthermore, the data shows that 76% of the variance in innovativeness (ISR) is explained by market orientation, learning orientation and perceived external market effects, while market orientation, learning orientation, perceived external market
effects and innovativeness (ISR) explain 70% of the variance in perceived organisational performance. Figure 5.4 presents the proposed model showing standardised path coefficients and $R^2$ values for endogenous variables.

### Table 5.13 PLS Results for the Theoretical Model – Customer Intimacy Strategy

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>$R^2$</th>
<th>Critical Ratio$^{ab}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2(ci)</td>
<td>.03</td>
<td>.76</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5(ci)</td>
<td>.10</td>
<td></td>
<td>1.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7(ci)</td>
<td>.78</td>
<td></td>
<td>8.93*</td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1(ci)</td>
<td>.61</td>
<td>.70</td>
<td>4.06*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3(ci)</td>
<td>.06</td>
<td></td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4(ci)</td>
<td>.30</td>
<td></td>
<td>3.44*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6(ci)</td>
<td>.05</td>
<td></td>
<td>0.32</td>
</tr>
</tbody>
</table>

AVA$^c$ .73

* Significance indicated by *

$^a$ Bootstrap estimate divided by bootstrap standard error

$^b$ Average Variance Accounted for.

### Figure 5.4 Model Results for Customer Intimacy Strategy

![Figure 5.4 Model Results for Customer Intimacy Strategy](image)

* Indicates significance. - - - Indicates not significant
5.9.2.4 Model Results – Entrenched Isolation Strategy

Table 5.14 presents the PLS analysis for the data pertaining to the strategy identified as *entrenched isolation* by showing the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, $R^2$ and critical ratios. All numbered hypotheses contain an additional “(ei)” which denotes the use of data pertaining only to the strategy identified as *entrenched isolation* in this analysis.

The AVA for the endogenous variables was .53 and the individual $R^2$ are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O'Cass, 2005) are significant for H2(ei), H3(ei), H5(ei) and H7(ei) but not for H1(ei), H4(ei) and H6(ei) (<1.64). The results indicate that H2(ei), H3(ei) and H7(ei) are supported. However, the results indicate that H1(ei), H2(ei), H4(ei), H5(ei) and H6(ei) are not supported.

Table 5.14  PLS Results for the Theoretical Model – Entrenched Isolation Strategy

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>$R^2$</th>
<th>Critical Ratio&lt;sup&gt;a,b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2(ei)</td>
<td>.43</td>
<td>.61</td>
<td>2.95&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5(ei)</td>
<td>.16</td>
<td></td>
<td>1.72&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7(ei)</td>
<td>.39</td>
<td></td>
<td>2.94&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1(ei)</td>
<td>.27</td>
<td>.45</td>
<td>1.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3(ei)</td>
<td>.38</td>
<td></td>
<td>3.45&lt;sup&gt;*&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4(ei)</td>
<td>.01</td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6(ei)</td>
<td>.15</td>
<td></td>
<td>0.81</td>
</tr>
</tbody>
</table>

AVA<sup>c</sup>  .53

<sup>a</sup> Significance indicated by <sup>*</sup>

<sup>b</sup> Bootstrap estimate divided by bootstrap standard error

<sup>c</sup> Average Variance Accounted for.

Furthermore, the data shows that 61% of the variance in *innovativeness* is explained by *market orientation, learning orientation and perceived external market effects*, while *market orientation, learning orientation, perceived external market effects and*
innovativeness (ISR) explain 45% of the variance in perceived organisational performance. Figure 5.5 presents the proposed model showing standardised path coefficients and $R^2$ values for endogenous variables.

**Figure 5.5  Model Results for Entrenched Isolation Strategy**

5.9.2.5 Comparison of Models

Having presented the PLS results for the international student recruitment strategy types separately, a comparative analysis is required to further address hypothesis H8. Operational Excellence (Figure 5.2), Product Leadership (Figure 5.3), Customer Intimacy (Figure 5.4) and Entrenched Isolation (Figure 5.5) models were initially visually examined to determine whether corresponding loadings and paths between latent variables were either significant or not significant across the models. The results of this visual inspection are shown in Table 5.15 in which significant and not-significant relationships across the models are listed and a comparison of the corresponding relationships is presented.

Next, the latent variable paths were compared across the measurement models. Latent variable path H7 was significant across all models. The remaining paths (H1, H2, H3, H4, H5 and H6) between the latent variables showed differences existing across the four models. The comparisons made in Table 5.15 indicate that the structural model
differs considerably across ISR marketing strategies, thus providing an initial response to hypothesis H8.

Table 5.15  Comparison of ISR Marketing Strategy Models

<table>
<thead>
<tr>
<th>Paths</th>
<th>Operational Excellence n = 96</th>
<th>Product Leadership n = 56</th>
<th>Customer Intimacy n = 81</th>
<th>Entrenched Isolation n = 69</th>
<th>Comparison of Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
<td>Not significant</td>
<td>Different</td>
</tr>
<tr>
<td>H2</td>
<td>Not significant</td>
<td>Significant</td>
<td>Not significant</td>
<td>Significant</td>
<td>Different</td>
</tr>
<tr>
<td>H3</td>
<td>Significant</td>
<td>Significant</td>
<td>Not significant</td>
<td>Significant</td>
<td>Different</td>
</tr>
<tr>
<td>H4</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Significant</td>
<td>Not significant</td>
<td>Different</td>
</tr>
<tr>
<td>H5</td>
<td>Significant</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Significant</td>
<td>Different</td>
</tr>
<tr>
<td>H6</td>
<td>Significant</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Not significant</td>
<td>Different</td>
</tr>
<tr>
<td>H7</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
<td>Significant</td>
<td>Same</td>
</tr>
</tbody>
</table>

The models were then further compared to determine if there were differences between the strength of relationships within the model paths. Analysis was conducted to examine differences in paths across the four models using an equivalency to a t-test procedure advocated by Chin (2002), and documented by Keil et al. (2000), which treats the estimates of the re-sampling in a parametric sense. The following formula, as documented by Keil et al. (2000) was used to calculate the t-statistics shown in Table 5.16.

\[
S_{pooled} = \left( \frac{(N_1 - 1)}{(N_1 + N_2 - 2)} \right) \times \text{SE}_1^2 + \left( \frac{(N_2 - 1)}{(N_1 + N_2 - 2)} \right) \times \text{SE}_2^2
\]

\[
t = \frac{(PC_1 - PC_2)}{S_{pooled} \times \sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}
\]

where \(S_{pooled}\) = pooled estimator for the variance

\(t\) = t-statistic with \(N_1 + N_2 - 2\) degrees of freedom

\(N_i\) = sample size of dataset for culture \(i\)

\(\text{SE}_i\) = standard error of path in structural model of culture \(i\)

\(PC_i\) = path coefficient in structural model of culture \(i\)

(Keil et al., 2000, p. 315)

The results of the analysis, conducted via one-tailed t-tests, are shown in Table 5.16. Tests between the corresponding structural paths of models that resulted in t-values greater than 1.96 were deemed to be significantly different.
Table 5.16  Comparison of Standardised path coefficients via t-tests

<table>
<thead>
<tr>
<th>Paths</th>
<th>Operational Excellence</th>
<th>Product Leadership</th>
<th>Customer Intimacy</th>
<th>Entrenched Isolation</th>
<th>t value</th>
<th>Significantly Stronger*</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>.44 .09</td>
<td>.47 .25</td>
<td>.61 .15</td>
<td>1.31</td>
<td>No sig. difference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.44 .09</td>
<td>.47 .25</td>
<td>.61 .15</td>
<td>9.31</td>
<td>Customer Intimacy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.82</td>
<td>Customer Intimacy</td>
<td></td>
</tr>
<tr>
<td>H2</td>
<td>.30 .10</td>
<td>.03 .08</td>
<td>18.32</td>
<td>Product Leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3</td>
<td>.34 .13</td>
<td>.30 .17</td>
<td>.38 .11</td>
<td>1.74</td>
<td>No sig. difference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.34 .13</td>
<td>.30 .17</td>
<td>.38 .11</td>
<td>1.88</td>
<td>No sig. difference</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.17</td>
<td>Entrenched Isolation</td>
<td></td>
</tr>
<tr>
<td>H5</td>
<td>.26 .12</td>
<td>.16 .09</td>
<td>5.88</td>
<td>Operational Excellence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H7</td>
<td>.54 .13</td>
<td>.71 .12</td>
<td>.78 .09</td>
<td>7.88</td>
<td>Product Leadership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.54 .13</td>
<td>.71 .12</td>
<td>.78 .09</td>
<td>14.51</td>
<td>Customer Intimacy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>.39 .13</td>
<td></td>
<td>7.01</td>
<td>Operational Excellence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.71 .12</td>
<td>.39 .13</td>
<td></td>
<td>4.36</td>
<td>Customer Intimacy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.71 .12</td>
<td>.39 .13</td>
<td></td>
<td>13.56</td>
<td>Product Leadership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.78 .09</td>
<td>.39 .13</td>
<td></td>
<td>21.51</td>
<td>Customer Intimacy</td>
<td></td>
</tr>
</tbody>
</table>

* Indicates support for all paths being significant

Table 5.16 shows that significant differences were evident on paths H1, H2, H3, H5 and H7 although significant differences were not evident for Operational Excellence and Product Leadership on path H1. For the Operational Excellence model, standardised path coefficients were significantly stronger for H5 (market orientation to innovativeness ISR). For the Product Leadership model, standardised path coefficients were significantly stronger for H2 (perceived external market effects to innovativeness ISR). Standardised path coefficients for the Customer Intimacy model were significantly stronger for H1 (innovativeness ISR to perceived organisational performance) and H7 (learning orientation to innovativeness ISR). Additionally, the standardised path coefficients for the Product Leadership model were significantly stronger than the Operational Excellence model which was, subsequently, significantly stronger than the Entrenched Isolation model for H7 (learning orientation to innovativeness ISR). Lastly, standardised path coefficients for the Entrenched Isolation model were significantly stronger for H3 (perceived external market effects to perceived organisational performance).

5.9.2.6  Summary of Results – Hypothesis H8

Hypothesis H8 seeks to discover the extent to which the structural model differs across ISR marketing strategy types. Results shown in Tables 5.15 and 5.16
demonstrate that considerable and significant differences exist across strategy types, therefore this hypothesis is supported. Further analysis of the differences between the strength of relationships within the model paths (refer Table 5.16) indicates that some standardised path coefficients do exhibit differences in their strength or contribution within the individual models across ISR marketing strategy types. The following analysis addresses hypothesis H9.

5.9.3 Model Results – Hypothesis H9
In order to test for similarities in the proposed model across education sectors, the data file was split into two groups – data collected with reference to the secondary school sector and data collected with reference to the university sector. The resulting data files contained 143 cases (secondary school sector) and 159 cases (university sector). Each data file was then analysed separately via PLS in the same fashion as the previous analysis for the overall model. The results of these separate analyses are initially presented prior to making a comparative analysis.

5.9.3.1 Model Results – Secondary School Sector
Table 5.17 presents the PLS analysis for the data pertaining to the secondary school education sector by showing the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, $R^2$ and critical ratios. All numbered hypotheses contain an additional “(s)” which denotes the use of data pertaining only to the secondary school sector in this analysis.

The AVA for the endogenous variables was .52 and the individual $R^2$ are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O’Cass, 2005) are significant for H2(s), H3(s), H6(s) and H7(s) but not for H1(s), H4(s) or H5(s) ($<\pm1.64$). The results indicate that H2(s), H3(s), H6(s) and H7(s) are supported. However, the results indicate that H1(s), H4(s) and H5(s) are not supported. Figure 5.6 presents the proposed model showing standardised path coefficients and $R^2$ values for endogenous variables.
### Table 5.17  PLS Results for the Theoretical Model – Secondary School Sector

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>( R^2 )</th>
<th>Critical Ratio*&lt;sup&gt;a,b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2(s)</td>
<td>.21</td>
<td>.54</td>
<td>2.10*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5(s)</td>
<td>.01</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7(s)</td>
<td>.64</td>
<td>8.66*</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1(s)</td>
<td>.28</td>
<td>.50</td>
<td>1.31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3(s)</td>
<td>.43</td>
<td>5.83*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4(s)</td>
<td>.10</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6(s)</td>
<td>.05</td>
<td>3.23*</td>
<td></td>
</tr>
</tbody>
</table>

AVA<sup>c</sup>  .52

* Significance indicated by *
<sup>a</sup> Bootstrap estimate divided by bootstrap standard error
<sup>b</sup> Average Variance Accounted for.

### Figure 5.6  Model Results for Secondary School Sector

Furthermore, the data shows that 54% of the variance in innovativeness (ISR) is explained by market orientation, learning orientation and perceived external market effects, while market orientation, learning orientation, perceived external market effects,
effects and innovativeness (ISR) explain 50% of the variance in perceived organisational performance.

### 5.9.3.2 Model Results – University Sector

Table 5.18 presents the PLS analysis for the data pertaining to the university education sector by showing the standardised path coefficients between the exogenous and endogenous variables, average variance accounted (AVA) for, $R^2$ and critical ratios. All numbered hypotheses contain an additional “(u)” which denotes the use of data pertaining only to the university sector in this analysis.

The AVA for the endogenous variables was .66 and the individual $R^2$ are of an acceptable magnitude (Falk & Miller, 1992) for all of the predicted variables. Bootstrap critical ratios (Bodey & Grace, 2007; Chin, 1998a, 1998b; Grace & O’Cass, 2005) are significant for H1(u), H4(u), H5(u), H6(u) and H7(u) but not for H2(u) or H3(u) (±1.64). The results indicate that H1(u), H4(u), H5(u), H6(u) and H7(u) are supported. However, the results indicate that H2(u) and H3(u) are not supported.

<table>
<thead>
<tr>
<th>Equation</th>
<th>Predicted variables</th>
<th>Predictor variables</th>
<th>Hypothesis</th>
<th>Path</th>
<th>$R^2$</th>
<th>Critical Ratio$^{ab}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Innovativeness (ISR)</td>
<td>Perceived external market effects</td>
<td>H2(u)</td>
<td>.07</td>
<td>.63</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H5(u)</td>
<td>.13</td>
<td></td>
<td>1.79*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H7(u)</td>
<td>.68</td>
<td></td>
<td>9.58*</td>
</tr>
<tr>
<td>2</td>
<td>Perceived organisational performance</td>
<td>Innovativeness (ISR)</td>
<td>H1(u)</td>
<td>.39</td>
<td>.68</td>
<td>4.84*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived external market effects</td>
<td>H3(u)</td>
<td>.12</td>
<td></td>
<td>1.34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Market orientation</td>
<td>H4(u)</td>
<td>.23</td>
<td></td>
<td>3.44*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning orientation</td>
<td>H6(u)</td>
<td>.26</td>
<td></td>
<td>3.21*</td>
</tr>
</tbody>
</table>

AVA$^c$ .66

$^a$ Significance indicated by *

$^b$ Bootstrap estimate divided by bootstrap standard error

$^c$ Average Variance Accounted for.
Furthermore, the data shows that 63% of the variance in innovativeness (ISR) is explained by market orientation, learning orientation and perceived external market effects, while market orientation, learning orientation, perceived external market effects and innovativeness (ISR) explain 68% of the variance in perceived organisational performance. Figure 5.7 presents the proposed model showing standardised path coefficients and R² values for endogenous variables.

### 5.9.3.3 Comparison of Models – Secondary School and University Sectors

Having presented the PLS results for the education sectors separately, a comparative analysis is required to further address hypothesis H9. Models of the Secondary School Sector (Figure 5.6) and University Sector (Figure 5.7) were initially visually examined to determine whether corresponding loadings and paths between latent variables were either significant or not significant across the two models. The results of this visual inspection are shown in Table 5.19 in which significant and not-significant relationships across the models are listed and a comparison of the corresponding relationships is presented.
Next, the loadings of the measurement models were compared. Regarding the paths between the latent variables, the comparison of the two models shows a mix of significant and non-significant paths. Paths H6 and H7 were found to be significant across both education sectors. Paths H1, H4 and H5 were significant for the university sector but not for the secondary school sector whereas paths H2 and H3 were significant for the secondary school sector but not for the university sector. The comparisons made in Table 5.19 indicate that the structural model differs across education sectors, thus providing an initial response to Hypothesis H9.

The secondary school and university models were then further compared to determine if there were differences between the strength of relationships within the model paths. Analysis was conducted on paths that were significant for both sectors examining differences across the two models. This was accomplished through a procedure recommended by Chin (2002) and previously discussed (refer Section 5.7.2.5). The results of this analysis are shown in Table 5.20.

Table 5.20 shows that t-tests conducted on paths H6 and H7 were all significantly different. The results indicate that for both H6 (learning orientation to perceived organisational performance) and H7 (learning orientation to innovativeness ISR) the university sector model standardised path coefficients were significantly stronger.
Table 5.20   Comparison of Standardised path coefficients via t-tests

<table>
<thead>
<tr>
<th>Paths</th>
<th>Secondary School Sector</th>
<th>University Sector</th>
<th>t value</th>
<th>Significantly Stronger*</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6</td>
<td>.05</td>
<td>.07</td>
<td>.26</td>
<td>.08</td>
</tr>
<tr>
<td>H7</td>
<td>.64</td>
<td>.07</td>
<td>.68</td>
<td>.07</td>
</tr>
</tbody>
</table>

* Indicates support for both paths being significant

5.9.3.4  Summary of Results – Hypothesis H9

Hypothesis H9 seeks to demonstrate that the structural model does not differ across education sectors. Results shown in Tables 5.19 and 5.20 demonstrate that considerable and significant differences do exist across education sectors and, as such, this hypothesis is not supported. Additionally, further analysis of the differences between the strength of relationships within the model paths (refer Table 5.20) indicates that some component loadings and standardised path coefficients exhibit differences in their strength or contribution within the individual models across education sectors.

5.10  Conclusion

This chapter has presented the results of the analysis undertaken on the data collected to address the hypotheses of this study. The data was obtained from a total of 311 surveys, collected from a cross-section of international student recruitment practitioners at secondary schools and universities in Australia, of which 302 were found to be complete and appropriate for use in the analysis. Initial inspections revealed that the data was not overly problematic and, therefore, all 302 cases were retained for preliminary data analysis.

Preliminary data analysis progressed through a process entailing correlation analysis and exploratory factor analysis. The rationale behind this process was to ensure construct validity, reliability and uni-dimensionality, of the data prior to further analysis. Having established that the scales used in this study were both reliable and valid, the computation of composite factor scores was then undertaken in readiness for the intended PLS analysis.

Seven primary hypotheses were proposed and the results of the PLS analysis provided support for all seven hypotheses. Proposed relationships between the latent variables,
market orientation, learning orientation, innovativeness (ISR), perceived external market effects and perceived organisational performance were all significant. Lastly, two hypotheses were investigated whereby the SOP Model was tested across four ISR marketing strategies (i.e., operational excellence, product leadership, customer intimacy and entrenched isolation) and two education sectors (i.e., secondary school sector and university sector). The results of these investigations verify that the SOP Model is structurally different across ISR marketing strategies and education sectors.

This chapter has presented the analysis undertaken to address the hypotheses of this study. The findings provide a comprehensive base for the ensuing discussion in Chapter Six that includes interpretation, and discussion, of the results and presentation of implications, limitations and recommendations for future research.
Chapter Six

Discussion

...scientific advance is cumulative: that it is not the creation of one [person] but the work of many...revising and criticising, adding to and subtracting from one another’s efforts. For one’s own work to count, one must relate it to what has been done before and to other work currently in progress (Mills, 1959, p. 127).

6.1 Introduction

The objective of this research was to explore international student recruitment in educational institutions through an investigation of how an institution’s orientation and operating environment impacts on innovativeness and perceived organisational performance. A review of the relevant literature in Chapter Two revealed that, within the marketing research community, there is considerable interest in the effect of market and learning orientations on organisational performance and this has been investigated across a variety of settings. However, due to the small body of marketing research within the education sector means that the effect of market and learning orientations within the education sector has not yet been fully investigated. On this basis, and building upon various theoretical ideas and empirical work in the areas of market orientation, learning orientation, and innovativeness, the Strategic Orientation Performance (SOP) Model was developed in Chapter Three. In order to address the hypotheses that were developed to test the SOP Model, data was gathered from 302 international education marketers who were surveyed via an online survey. The data were analysed via Partial Least Squares analysis, and the results were presented in Chapter Five, indicating partial empirical support for the SOP Model.

In doing so, the theoretical model of this study has met all the criteria of sound theory development as recommended by Wacker (1998). Firstly, the theory contains clear definitions of terms or variables as shown in Table 3.3 of Chapter Three. Secondly,
Section 1.7 of Chapter One outlines the delimitations of the research domain. Thirdly, logical assembly of the theoretical model and the rationale behind the proposed relationships are discussed in detail in Chapter Three and, finally, empirical validation of the model is presented in Chapter Five. However, an important part of any research is not only to translate the findings into meaning but also to relate the findings to previous and current work. This chapter, therefore, evaluates the findings of this study in terms of its contribution to theory, implications in both practical and theoretical terms, its limitations and direction for future research.

6.2 Discussion of Overall Model Results

In order to assist the development of a full appreciation of the findings, the results are examined according to the relationships between the key constructs contained within the proposed model. To provide clarity for the ensuing discussion the Strategic Orientation Performance (SOP) Model is re-presented in Figure 6.1.

The findings reported in Chapter Five provide empirical validation for the SOP Model, showing the significance of market orientation, learning orientation and perceived external market effects for the endogenous construct innovativeness (ISR).
and the significance of market orientation, learning orientation, perceived external market effects and innovativeness (ISR) for the endogenous construct perceived organisational performance. The ensuing discussion examines the relationships between the key constructs within the SOP Model.

6.2.1 Market Orientation
The importance of developing a market orientation has been argued by numerous researchers (Day, 1994; Slater & Narver, 1995) and it has been suggested that the relationship between market orientation and performance is robust across industry sectors and national cultures (Jaworski & Kohli, 1996; Slater & Narver, 2000). The results, presented in Chapter Five, support Kohli and Jaworski (1990) and Narver and Slater (1990), and the proposed hypotheses (H4 and H5), in that, market orientation is found to have a significant positive relationship with both perceived organisational performance and innovativeness (ISR). This means that for the education sector, when recruiting international students, a significant relationship is found to exist between innovativeness in international student recruitment and the market orientation of an educational institution. Similarly, a significant relationship is found to exist between the international student recruitment performance of an educational institution and the market orientation of that institution. Overall, market orientation is found to be an important construct for educational institutions involved in the recruitment of international students.

These findings add to a discordant body of literature regarding the existence of a direct relationship between market orientation and organisational performance. A positive direct relationship is found to exist between market orientation and performance by Baker and Sinkula (1999b), Narver and Slater (1990), Ruekert (1992) and Slater and Narver (1994); no significant direct relationship is found to exist by Baker and Sinkula (1999a), Diamantopoulos and Hart (1993) and Olavarrieta and Friedmann (2008); while Gray et al., (1999), Greenley (1995b) and Jaworski and Kohli (1993) find mixed results.

Most of the previously mentioned studies involved the for-profit and industry sectors. The findings specifically within the services sector and not-for-profit sectors are no
less mixed. A significant and positive effect of *market orientation* on *organisational performance* is found to exist by Kumar et al. (1998) for hospitals in the United States, by Matear et al. (2002) for New Zealand service firms and by Van Egeren and O’Connor (1998) for stand alone service organisations in the United States. Limited support for the relationship is found by Chang and Chen (1998) who investigated retail stock-broking companies in Taiwan while no direct relationship between *market orientation* and *organisational performance* is found by Vazquez et al. (2002) in the case of non-profit organisations in Spain or by Bhuian (1997) who investigates the banking sector in Saudi Arabia. Bhuian (1997) suggests that within the services sector, the evidence from previous studies to support or deny the existence of a direct positive relationship between *market orientation* and *performance* is unclear. The findings generated using the SOP Model support the existence of a significant positive link between *market orientation* and *performance*.

In an attempt to further address this issue, several researchers have argued the existence of *innovativeness* as a mediating factor in the relationship between market orientation and organisational performance. For example, innovativeness is considered to be a major component of success in industrial firms (Hult et al., 2004) and a core value-creating capability driving the relationship between market orientation and organisational performance (Slater & Narver, 1994).

Although not as widely investigated as the relationship between market orientation and organisational performance, the relationship between *market orientation* and *innovativeness* has generated considerable research interest, mostly which demonstrates a significant positive relationship between these two constructs (e.g., Agarwal et al., 2003; Baker & Sinkula, 1999a; Hult et al., 2004; Lee & Tsai, 2005; Menguc & Auh, 2006; Olavarrieta & Friedmann, 2008). Affirming the findings from these studies, and using the SOP Model, a significant positive relationship between *market orientation* and *innovativeness (ISR)* is found to exist for international student recruitment within educational institutions. While this supports the findings of a large body of research (e.g., Agarwal et al., 2003; Baker & Sinkula, 1999a; Hult et al., 2004; Lee & Tsai, 2005; Menguc & Auh, 2006; Olavarrieta & Friedmann, 2008), it is contrary to the findings of Atuahene-Gima (1996), Langerak et al. (2004), Lawton and
Parasuraman (1980) and Noble et al. (2002) who find little or no evidence of a significant positive relationship.

The findings discussed, thus far, refer to international student recruitment as it pertains to the education sector in general. As will be seen later in this discussion chapter, differences in the relationships evidenced between marketing orientation, innovativeness and organisational performance emerge when specific individual educational sectors are investigated.

Some researchers (e.g., Baker & Sinkula, 1999b; Slater & Narver, 1995) consider learning orientation to be at least as significant as market orientation in achieving a high level of organisational performance success. The following section discusses the relationships between learning orientation and organisational performance, and between learning orientation and innovativeness (ISR).

### 6.2.2 Learning Orientation

The results presented in Chapter Five indicate that learning orientation has a significant and positive effect on perceived organisational performance, thus supporting hypothesis H6. This finding concurs with research conducted across a wide range of settings including Baker and Sinkula (1999a, 1999b), Calantone et al. (2002), Farrell (2000), Kropp et al. (2006) and Lee and Tsai (2005). However, no significant direct effect between learning orientation and perceived organisational performance was found by Hult et al. (2004).

Crossan et al. (1999) consider that learning orientation is related to the development of new knowledge within an organisation. In the current study, 42% of all institutions had recruited international students for fifteen years or less. Within this relatively short span of years these institutions may have needed to develop a considerable body of new knowledge regarding international student recruitment, thereby emphasising the learning orientation within the institution.

Baker and Sinkula (1999a) consider learning orientation to be a more pervasive resource within an organisation, than market orientation. Mostly, the normal operating environment for educational institutions tends to have a learning focus, and
employees within educational environments, generally, understand the relationship between learning and performance. In addition, managers in educational institutions tend to have an educational background, rather than a business background, and often have little experience in a market environment. As such, an orientation focused on learning may be more understandable and readily embraced than a market orientation for many institutions.

The relationship between learning orientation and innovativeness (ISR) is less researched and understood than that between learning orientation and perceived organisational performance. The results, presented in Chapter Five, indicate that learning orientation has a significant and positive effect on innovativeness (ISR), thus supporting hypothesis H7. This is consistent with the findings from Baker and Sinkula (1999a), Calantone et al. (2002) and Mavondo et al. (2005). Although Hult (2004) found no significant relationship between learning orientation and perceived organisational performance, a significant positive relationship between learning orientation and innovativeness was found.

This suggests that for educational institutions involved in the recruitment of international students, learning orientation is a key driver of both perceived organisational performance and innovativeness (ISR). Without a strong learning orientation institutions may have a lesser ability to achieve desired performance outcomes coupled with a lesser propensity for innovativeness. Within an organisation, innovativeness is considered to be strongly influenced by the external environment (Daft & Becker, 1978; Day, 1994; Porter, 1980) and this relationship is investigated next.

6.2.3 Perceived External Market Effects

Hurley and Hult (1998) argue that innovation is an adaptation mechanism for organisations operating in dynamic environments. However, the relationship between perceived external market effects and innovativeness has not been rigorously investigated within orientation and performance models. This relationship was investigated in the current study and, for educational institutions involved in the recruitment of international students, a direct relationship was found to exist between perceived external market effects and innovativeness (ISR). The current findings
support similar findings by Subramanian (1996), however, are contrary to Nohria and Gulati (1997) and Zajac, Golden and Shortell (1991) who find no relationship between the constructs. These studies, however, conceptualise innovativeness as the degree of competition and technological dynamism (Nohria & Gulati, 1997), market competition and environmental scarcity (Zajac et al., 1991), and number of innovations, mean time of adoption and consistency with time of adoption (Subramanian, 1996). The current study adopts the conceptualisation of innovativeness developed by Kohli and Jaworski (1990) and Jaworski and Kohli (1993) (market turbulence, competitive intensity and technological turbulence) and, as such, it is difficult to make meaningful comparisons with the previously mentioned studies.

Within the literature, the relationship between perceived external market effects and organisational performance has been more thoroughly investigated than the relationship between perceived external environment and innovativeness. However, within the strategic management literature it has long been considered that external market effects moderate the relationship between market orientation and organisational performance (Hambrick, 1983; Snow & Hrebiniak, 1980) and, as a result, studies that investigate the relationship between external environment and organisational performance mostly tend to do so by considering external environment as a moderating variable (e.g., Jaworski & Kohli, 1993; Langerak, Hultink, & Robben, 2007; McKee et al., 1989; Slater & Narver, 1994). Gray et al. (1999), Greenley (1995b) and Narver and Slater (1990) provide notable exceptions to these studies in that a direct relationship between external environment and organisational performance is investigated, although Greenley (1995b) concurrently investigates the moderating effect of external environment.

The smaller number of studies investigating a direct relationship between external market effects and performance provided the impetus for the current study in which a direct positive relationship is found to exist between perceived external market effects and perceived organisational performance, thus supporting hypothesis H3. This finding partially supports Gray et al. (1999), Greenley (1995b) and Narver and Slater (1990) who obtained mixed results for the relationship between these constructs.
For educational institutions involved in recruiting international students, *perceived external market effects* significantly impact on the organisational performance of an institution. This impact is irrespective of the marketing or learning orientation or degree of innovativeness at that institution. For example, the September 11, 2001 terrorist attacks in the United States and the global SARS outbreak had major negative impacts on international student recruitment for many institutions (Baker, 2006; Chute, 2006; Employment Workplace Relations and Education Legislation Committee, 2003; Smith, 2003) and were not a result of orientation or innovativeness from any institution or group of institutions.

Several researchers suggest that organisations with greater levels of innovativeness are able to respond in a more timely fashion to changes in their environment and, thus, generate greater performance outcomes (Deshpande et al., 1993; Moorman, 1995). This suggested relationship between innovativeness and perceived organisational performance is further discussed in the following section.

### 6.2.4 Innovativeness (ISR)

The relationship between innovativeness and organisational performance has been inconsistently explored within the literature. Researchers have investigated the relationship using the constructs of innovativeness and performance (Calantone et al., 2002; Deshpande & Farley, 2004; Hult et al., 2004; Lee & Tsai, 2005), innovation and organisational performance (Agarwal et al., 2003; Baker & Sinkula, 1999a) and innovation intensity and sustained competitive advantage (Weerawardena & O’Cass, 2004). Han et al. (1998) even appear to consider the terms innovativeness and innovations to be interchangeable.

In the current study, the relationship measured was that between *innovativeness (ISR)* and *perceived organisational performance*. The results presented in Chapter Five indicate that *innovativeness (ISR)* has a significant and positive effect on *perceived organisational performance*, thus supporting hypothesis H1. This finding concurs with much previous research (e.g., Calantone et al., 2002; Han et al., 1998; Hult et al., 2004; Lee & Tsai, 2005; O’Cass & Ngo, 2007) and is contrary to the findings of Mavondo et al. (2005) who found no relationship between innovation and performance. Additionally, Lee and Tsai (2005) found that the direct effect of
innovation on performance was significantly larger than that of either market orientation or learning orientation. The findings from the current study support this finding in that the reported path weighting (refer Chapter 5, Section 5.9) between innovativeness (ISR) and perceived organisational performance (.349) was found to be stronger than that between market orientation (.128) or learning orientation (.154) and perceived organisational performance.

The results confirm the SOP Model (refer Figure 6.1) to be a valid model that can assist in understanding the way in which education institutions perceive organisational performance in relation to the recruitment of international students. However, in order to determine the applicability of the SOP Model across different education sectors and ISR marketing strategy types, two sets of comparisons were made.

6.3 Comparing Models

The two additional hypotheses of this study investigate the extent to which the SOP Model differs across international student recruitment (ISR) marketing strategy types (H8) and the extent to which the model does not differ across education industry sectors (H9). Firstly, a comparison was made in the context of Operational Excellence, Product Leadership, Customer Intimacy and Entrenched Isolation ISR marketing strategies and, secondly, an investigation was made in the context of secondary school and university education sectors.

6.3.1 Comparing Models by ISR Marketing Strategy

Hypothesis H8 sought to investigate the extent to which the structural model differs across international student recruitment (ISR) marketing strategy types (i.e. Operational Excellence, Product Leadership, Customer Intimacy and Entrenched Isolation). The descriptors for each strategy can be seen in Table 6.1.

The findings show differences across the models and indicate that SOP Model is partially supported to varying extents in the context of each ISR marketing strategy. This indicates that the way in which innovativeness (ISR) and perceived organisational performance is conceptualised by educational institutions differs across ISR marketing strategies.
Of the seven hypotheses investigated in this study, five were found to be significant for the **Operational Excellence** ISR marketing strategy (H1, H3, H5, H6 and H7). Four hypotheses were found to be significant for the **Product Leadership** (H1, H2, H3 and H7) and the **Entrenched Isolation** (H2, H3, H5, H7) ISR marketing strategies, while three were found to be significant for the **Customer Intimacy** (H1, H4 and H7) ISR marketing strategies.

### Table 6.1 ISR Marketing Strategies and Descriptors

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational Excellence</td>
<td>Optimise procedures to minimise costs. Organisational structure encourages standardised operations. Systems are integrated with an emphasis on reliable transactions. Culture rewards efficiency.</td>
</tr>
<tr>
<td>Product Leadership</td>
<td>Tendency towards invention Organisational structure encourages entrepreneurialism. Results driven. Culture encourages imagination.</td>
</tr>
<tr>
<td>Customer Intimacy</td>
<td>Solution development. Organisational structure encourages delegating decision-making. Focus on creating results. Culture is focussed on relationships.</td>
</tr>
<tr>
<td>Entrenched Isolation</td>
<td>Secure departments each with own knowledge base. Organisational structure encourages information retention. Focus on individual performance. Culture encourages individuals to develop specific competencies.</td>
</tr>
</tbody>
</table>

All ISR marketing strategies displayed a significant positive relationship between *learning orientation* and *innovativeness (ISR)*. As previously discussed, for educational institutions involved in the recruitment of international students, *learning orientation* is a key driver of *innovativeness (ISR)*. While it is interesting and valid to investigate similarities across the four ISR marketing strategies, the defining characteristics of the strategies are more readily observed through an investigation and discussion of differences across the strategies.

For the ISR marketing strategies investigated, considerable differences were observed in the relationships between *market orientation* and *innovativeness (ISR)* and *perceived organisational performance*. For the **Product Leadership** ISR marketing
strategy neither relationship was found to be significant while for each of the three remaining ISR marketing strategies, one market orientation path was found to be significant. The relationship between market orientation and innovativeness (ISR) was found to be significant for the Operational Excellence and Entrenched Isolation ISR marketing strategies, while the relationship between market orientation and perceived organisational performance was found to be significant for the Customer Intimacy ISR marketing strategy. This means that for educational institutions exhibiting an Operational Excellence or Entrenched Isolation ISR marketing strategy, market orientation directly impacts on ISR innovativeness. Similarly, for educational institutions exhibiting a Customer Intimacy ISR marketing strategy, market orientation directly impacts on ISR performance.

These observed differences across the ISR marketing strategy types are contrary to Matsuno and Mentzer (2000) who found a similarity of results across differing strategy types. Additionally, Matsuno and Mentzer (2000) also found the relationship between market orientation and performance to be significant. While this significant relationship was found for the overall SOP Model in this study, when the model is applied to specific ISR marketing strategies the relationship between market orientation and performance is found to be not significant for Operational Excellence, Product Leadership and Entrenched Isolation ISR marketing strategies. This finding makes sense given that, by their very definition, it is not expected that Operational Excellence, Product Leadership or Entrenched Isolation would have the marketing concept at the core of their strategic ideology.

A significant positive relationship was found to exist between learning orientation and perceived organisational performance for the Operational Excellence ISR marketing strategy, but no significant relationship was found to exist for Product Leadership, Customer Intimacy or Entrenched Isolation ISR marketing strategies. This means that for educational institutions exhibiting an Operational Excellence ISR marketing strategy, learning orientation directly impacts on ISR performance. The relationship between learning orientation and perceived organisational performance has been investigated and found to be robust in a number of studies (e.g., Baker & Sinkula, 1999a, 1999b; Calantone et al., 2002; Farrell, 2000; Lee & Tsai, 2005). The results from this study lend partial support to these findings however, to
date, it appears that within the literature the robustness of the relationship between learning orientation and perceived organisational performance has not been tested across different strategy types and, thus, the current study raises interesting questions about the nature of this relationship.

A learning orientation within any organisation involves some degree of organisational learning and such learning is usually derived from sources internal and external to the organisation (Slater & Narver, 1995). In this study, learning orientation comprises the three dimensions of shared vision, open-mindedness and a commitment to learning (Baker & Sinkula, 2002; Sinkula et al., 1997). All educational institutions involved in the recruitment of international students applied these dimensions to generate a relationship between learning orientation and innovativeness (ISR). However, unlike institutions with Operational Excellence ISR marketing strategies, institutions with Product Leadership, Customer Intimacy or Entrenched Isolation ISR marketing strategies were not able to apply these dimensions to generate a relationship between learning orientation and perceived organisational performance. In other words, institutions were all able to learn from others and themselves, and this significantly impacts on innovativeness (ISR), but only institutions with Operational Excellence ISR marketing strategies were able to learn from others in such a way that it impacted on perceived organisational performance.

Clearly it is not possible to argue that institutions with Product Leadership, Customer Intimacy or Entrenched Isolation ISR market strategies do not possess a learning orientation as for all ISR strategy types the relationship between learning orientation and innovativeness (ISR) was significant and positive. Where a difference is evident, however, is that not all institutions apply learning orientation to ISR performance. The inference is that if learning orientation comprises shared vision, open-mindedness and a commitment to learning, then how institutions apply these dimensions to international student recruitment is a function of the ISR strategy within that institution.

Operational Excellence, Product Leadership and Entrenched Isolation ISR marketing strategies all showed a significant positive relationship between perceived external market effects and perceived organisational performance. However, this
relationship was not found for the **Customer Intimacy** ISR marketing strategy. This means that, for educational institutions exhibiting a **Customer Intimacy** ISR marketing strategy, perceived external market effects do not directly impact on ISR performance.

Previous studies investigating the relationship between environmental effects and performance across different strategies have largely been inconclusive (e.g., Lenz, 1980; Miller, 1988) or have found limited support for differences based on strategy (McKee et al., 1989). This study extends previous research by demonstrating, firstly, the existence of a direct relationship between *perceived external market effects* and *perceived organisational performance* and, secondly, that this relationship is not robust across strategies, thus concurring with Prescott (1986). Educational institutions who display **Customer Intimacy** ISR marketing strategies may be protected from the potential negative effects of the external environment due to the close bond they forge with their customers. In fact, Treacy and Wiersema (1996) consider that;

> The customer-intimate company makes a business of knowing the people it sells to and the products and services they need. . . . The customer-intimate company’s greatest asset is, not surprisingly, its customers’ loyalty (Treacy & Wiersema, 1996, p. 38)

The finding for **Operational Excellence**, **Product Leadership** and **Entrenched Isolation** ISR marketing strategies suggests that as competition within the international education student recruitment environment increases, so too does international student recruitment performance. Jaworski and Kohli (1993) found that as competition within a market increases, performance may decrease and this seems to be a logical proposition. However, the positive relationship between external competitive intensity and performance found in this study was also found by Gray et al. (1999). The possible reason offered by Gray et al. (1999) was that as the level of competition increases, organisations become more aggressive or efficient in their operations and this may also apply to international student recruitment.
A significant positive relationship was found to exist between perceived external market effects and innovativeness (ISR) for Product Leadership and Entrenched Isolation ISR marketing strategies, but not for Operational Excellence or Customer Intimacy ISR marketing strategies. This means that, for educational institutions exhibiting either a Product Leadership or Entrenched Isolation ISR marketing strategy, the external market effects directly influence innovativeness (ISR). The inference here is that for Product Leadership and Entrenched Isolation institutions, innovativeness (ISR) is influenced from sources external to the institution, while for Operational Excellence and Customer Intimacy institutions it is not. As institutions with Customer Intimacy ISR marketing strategies tend to focus principally on the development of long term customer relationships and meeting the specific needs of loyal groups of customers, it is likely that innovativeness (ISR) for these institutions would be influenced more by these customers than by other external influences such as competitive intensity. In the case of institutions with an Operational Excellence ISR marketing strategy, innovativeness (ISR) drivers are not sought from outside the institution. It is quite likely that such institutions feature a distinct lack of innovativeness (ISR) as this particular ISR strategy emphasises the retention of information within individual departments and a resistance to organisational change. In this study, perceived external market effects were operationalised using Jaworski and Kohli’s (1993) conceptualisation. This may be interpreted to mean that innovativeness (ISR) within institutions displaying Product Leadership or Entrenched Isolation ISR marketing strategies is directly influenced by the degree of turbulence in the market, the intensity of competitors and the degree to which technology is in a state of flux (Oczkowski & Farrell, 1998).

Operational Excellence, Product Leadership and Customer Intimacy ISR marketing strategies showed a significant positive relationship between innovativeness (ISR) and performance, however, this relationship was not found to exist for the Entrenched Isolation ISR marketing strategy. This means that for educational institutions exhibiting an Operational Excellence, Product Leadership or Customer Intimacy ISR marketing strategy, innovativeness has a direct impact on ISR performance. The impact of different strategy types on organisational performance has been previously investigated within the literature and is found to be partially supported by Slater and Olson (2000) and fully supported by O'Cass and Ngo.
In the context of ISR marketing strategies, the findings in this study tend to largely support these previous studies in that only one of the four ISR marketing strategies investigated does not display a significant relationship between innovativeness (ISR) and performance.

The following discussion examines the results of comparative testing of the four ISR marketing strategy models in terms of the structural paths.

6.3.1.1 Comparing Path Strengths (ISR Marketing Strategies)

Comparison of the structural paths across the four models revealed distinctive characteristics for the four ISR marketing strategies investigated. A summary of the results of path strength comparison is presented in Table 6.2.

Table 6.2 Summary of Results of Path Strength Comparison

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Significant</th>
<th>Interpretation of Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovativeness (ISR) → Perceived organisational performance</td>
<td>OE, PL, CI models</td>
<td>Significantly stronger in CI model</td>
</tr>
<tr>
<td>Perceived external market effects → Innovativeness (ISR)</td>
<td>PL, EI models</td>
<td>Significantly stronger in PL model</td>
</tr>
<tr>
<td>Perceived external market effects → Perceived organisational performance</td>
<td>OE, PL, EI models</td>
<td>Significantly stronger in EI</td>
</tr>
<tr>
<td>Market orientation → Innovativeness (ISR)</td>
<td>OE, EI models</td>
<td>Significantly stronger in OE model</td>
</tr>
<tr>
<td>Learning orientation → Innovativeness (ISR)</td>
<td>OE, PL, CI, EI models</td>
<td>Significantly stronger in CI model.</td>
</tr>
</tbody>
</table>

OE = Operational Excellence
CI = Customer Intimacy
PL = Product Leadership
EI = Entrenched Isolation

Through combining the discussion of path strengths with the significance of relationships between constructs (refer Section 6.3.1), a set of identifying characteristics can be developed that may be used to describe the unique features of each ISR marketing strategy. Each ISR model displays at least one path coefficient that is stronger than any other model and, thus, this becomes the identifying characteristic for the specific ISR marketing strategy.

The Operational Excellence model has the strongest path coefficient for the path between market orientation and innovativeness (ISR) and between learning
orientation and perceived organisational performance. This focus on innovativeness (ISR), through an emphasis on market orientation seems to fit well with the descriptors of the Operational Excellence strategy (refer Table 6.1) as does a focus on performance, through an emphasis on learning orientation. Institutions displaying this strategy typically seek to be industry leaders in price and convenience with a “focus on delivering their products and services to customers at competitive prices and with minimal inconvenience” (Treacy & Wiersema, 1993, p. 85). Through the creation and effective use of knowledge (Calantone et al., 2002), institutions with an Operational Excellence ISR marketing strategy are well placed to enhance their competitive advantage.

The Product Leadership model displays the strongest path coefficient for the path between perceived external market effects and innovativeness (ISR). This focus on innovativeness (ISR) as an outcome, particularly with an external influence, seems to fit well with the objectives of the Product Leadership strategy (refer Table 6.1) which has a tendency towards invention. In fact Treacy and Wiersema (1993) suggest that organisations pursuing a Product Leadership strategy typically;

```
strive to produce a continuous stream of state-of-the-art products and services. More than anything else, being creative means recognizing and embracing ideas that usually originate from outside the company (p. 89).
```

The Customer Intimacy model displays the strongest path coefficient for the paths between innovativeness (ISR) and perceived organisational performance, market orientation and perceived organisational performance and learning orientation and innovativeness (ISR). As with the previous ISR marketing strategies, these relationships seem to fit well with the objectives of organisations exhibiting a Customer Intimacy strategy. The Customer Intimacy strategy (refer Table 6.1) features an emphasis on solution development coupled with a focus on creating results (Treacy & Wiersema, 1995) and this is reflected in the displayed strengths in innovativeness (ISR) and perceived organisational performance. Additionally, institutions pursuing a Customer Intimacy strategy are particularly interested in developing long-term relationships with customers and focus on the institution’s
ability to “collect, integrate, and analyse data from many sources” (Treacy & Wiersema, 1993, p. 89) as a means of accomplishing this objective. In the current study, market orientation involves identifying and responding to customers’ needs (Gray et al., 1999) while learning orientation involves improving actions through better knowledge and understanding (Fiol & Lyles, 1985) and using that knowledge and understanding to enhance competitive advantage (Calantone et al., 2002). Institutions pursuing a Customer Intimacy ISR marketing strategy understand the fundamental importance using a variety of information sources to identify customers’ needs, learn from the information gathered and communicate the learnt knowledge throughout the institution.

The Entrenched Isolation model displays the strongest path coefficient for the path between perceived external market effects and perceived organisational performance. This fits well with the characteristics of this particular model (refer Table 6.1), that is, the construction and protection of knowledge silos within an institution, coupled with an active defiance towards change. Rather than seeking to develop a competitive advantage, in terms of international student recruitment, institutions displaying an Entrenched Isolation strategy actively seek to avoid change and project responsibility for recruitment performance to the external environment.

Table 6.3 Key Indicator Characteristics of ISR Marketing Strategies

<table>
<thead>
<tr>
<th>ISR marketing strategy</th>
<th>Distinguishing structural relationships</th>
</tr>
</thead>
</table>
| Operational Excellence | Market orientation to innovativeness (ISR)  
                           Learning orientation to perceived organisational performance |
| Product Leadership     | Perceived external market effects to innovativeness (ISR) |
| Customer Intimacy      | Innovativeness (ISR) to perceived organisational performance  
                           Market orientation to perceived organisational performance  
                           Learning orientation to innovativeness (ISR) |
| Entrenched Isolation   | Perceived external market effects to perceived organisational performance |

Comparison of the structural paths for the ISR marketing strategy models reveals certain paths in which a single strategy is strongest across all the models and, as such, provides a distinguishing indicator which differentiates ISR marketing strategies. The
structural relationships in which the ISR marketing strategy models displayed the strongest standardised path coefficients can be seen in Table 6.3.

Visual inspection of the average variance accounted (AVA) for the four ISR marketing strategy models reveals that the SOP Model is most predictive for the Product Leadership ISR marketing strategy (AVA = .787) followed by Customer Intimacy (AVA = .73), Operational Excellence (AVA = .61) and Entrenched Isolation (AVA = .53). Visual inspection also reveals differences in the R² values across the four ISR marketing strategies. For example, the R² value for innovativeness (ISR) is considerably greater for Product Leadership (.87) than for any other ISR marketing strategy. As previously discussed (refer Chapter 2, Section 2.5.4), a defining feature for Product Leadership is the development of the best product or service (Treacy & Wiersema, 1995). In the highly competitive international student recruitment industry (Veloutsou et al., 2004), institutions seeking to develop the best service or product may require a high degree of innovativeness and this is reflected in the R² for innovativeness (ISR) in the Product Leadership model. Similarly, the R² value for perceived organisational performance is lower for Entrenched Isolation (.47) than the other ISR marketing strategies. Again, this may reflect the defining feature of this ISR marketing strategy. The Entrenched Isolation ISR marketing strategy emphasises the influence of external market effects on ISR performance and, as such, this strategy takes almost a fatalistic stance towards ISR performance. The AVA and R² for each ISR marketing strategy model can be seen in Table 6.4.

Table 6.4 R² and AVA for ISR Marketing Strategies

<table>
<thead>
<tr>
<th>ISR Marketing Strategy</th>
<th>Dependent Variable (R²)</th>
<th>AVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Innovativeness (ISR)</td>
<td></td>
</tr>
<tr>
<td>Product Leadership</td>
<td>.87</td>
<td>.78</td>
</tr>
<tr>
<td>Customer Intimacy</td>
<td>.76</td>
<td>.73</td>
</tr>
<tr>
<td>Customer Intimacy</td>
<td>.56</td>
<td>.61</td>
</tr>
<tr>
<td>Entrenched Isolation</td>
<td>.61</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td>Perceived Organisational Performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.45</td>
<td></td>
</tr>
</tbody>
</table>

The preceding discussion has investigated the significance and strength of the relationships between the constructs for each of the ISR marketing strategies. The
outcome of this discussion is the development of a set of differentiating characteristics for each ISR strategy as well as acknowledging differences in AVA and $R^2$. The implications of these outcomes are addressed later. The following section, however, discusses the findings in relation to the education sector to which an institution belongs.

6.3.2 Comparing Models by Education Sector

Hypothesis H9 sought to investigate the applicability of the structural model across education industry sectors (i.e. secondary school sector and university sector). Largely, this hypothesis was not supported with path differences being evident across education sectors. Differences were evident in the models for each sector, indicating that the way in which innovativeness and organisation performance is conceptualised by educational institutions differs across education sectors. Of the seven paths of the structural model investigated in this study, four were found to be significant for the secondary school sector (H2, H3, H6 and H7) while five were found to be significant for the university sector (H1, H4, H5, H6 and H7).

The most notable differences in these education sectors are those where the paths between constructs are found to be significant for one education sector but not the other. For example, the relationships between *innovativeness (ISR)* and *perceived organisational performance* (H1), *market orientation* and *perceived organisational performance* (H4) and *innovativeness (ISR)* (H5) are significant for the university sector and not significant for the secondary schools sector. Alternatively, the relationships between *perceived external market effects* and *innovativeness (ISR)* (H2) and *perceived organisational performance* (H3) are significant for the secondary sector but not for the university sector.

This means that for the university sector, *market orientation* is an important variable in determining the *innovativeness (ISR)* and *perceived organisational performance* of an institution, whereas for the secondary school sector it is not. Within the university sector, this finding supports Caruana et al. (1998), Hammond et al. (2006) and Owlia and Aspinwall (1996) who also find a significant relationship between market orientation and performance, albeit in a different context. As suggested by Conway et
al. (1994), perhaps this level of market orientation evidenced in the university sector is a response to the current competitive operating environment where universities;

now operate within a much greater competitive context than hitherto. As a result, they need to incorporate a greater market orientation into their strategic planning process to acquire a competitive advantage over their rivals (p. 29).

The argument developed by Conway et al. (1994) may also be extended to the relationship between market orientation and innovativeness. However, with the exception of the present study, the importance of this relationship within the university sector does not appear to be been addressed within the literature. Similarly, despite Oplatka and Hemsley-Brown (2007) arguing the importance of a market orientation for the secondary school sector, literature in relation to the secondary school sector does not appear to not have empirically investigated these relationships.

In addition to the reported differences regarding market orientation, another difference between the education sectors relates to the relationship between perceived external market environment and innovativeness (ISR) (H2) and perceived organisational performance (H3). These relationships were found to be significant for the secondary school sector, but not significant for the university sector. In other words, for secondary schools perceived external market effects directly, and positively, influence innovativeness (ISR) and ISR performance within the institution, whereas for universities this reliance on external market effects is not evident. This means that the external environment has a greater impact on international student recruitment success for secondary schools than for universities. Although a variety of factors may be responsible for this, when compared with secondary schools, universities generally have larger international student recruitment departments and employees with considerable experience in recruiting international students. Additionally, universities mostly have employees specifically charged with the recruitment of international students, whereas this is often not the case for secondary schools. In this study, innovativeness (ISR) was conceptualised as innovative capability (Wang & Pervaiz, 2004). It is feasible that a large, well- resourced and dedicated international student recruitment department (as is the case of many
universities) may have a much greater innovative capability than a much smaller international student recruitment department where international student recruitment is simply one of many tasks undertaken (as is the case with many secondary schools). In the case of the latter institution type, it could be expected that incumbents would look for innovativeness from outside the institution.

Additionally, by focusing on a variety of markets rather than concentrating on a single market, universities are better able to minimise potential risks involved in recruiting international students and, thereby, potentially reduce the impact of *external market effects on ISR performance*. For example, in 2007, 40% of international students in Australian universities were from North-East Asia whereas, in the same year, 75% of international students in Australian secondary schools were from North-East Asia (AEI, 2008a). For secondary schools, this over reliance on a single region can lead to intense competition amongst institutions and can also lead to major recruitment problems should the market falter. In addition to this, universities are often able to develop an extensive range of market research materials on those markets.

Visual inspection of the average variance accounted (AVA) for the two education sectors reveals that the SOP Model is more predictive for the university sector (AVA = .66) than the secondary school sector (AVA = .52). Visual inspection also reveals differences in the $R^2$ values for *innovativeness (ISR)* and *perceived organisational performance* across the two sectors. The $R^2$ value for *perceived organisational performance* in the university sector (.68) is greater than the corresponding $R^2$ value for the secondary sector (.50). This difference may reflect the greater emphasis placed on ISR performance by the larger university sector than the smaller secondary school sector (refer Chapter 1, Section 1.7). The AVA and $R^2$ for each education sector can be seen in Table 6.5.

<table>
<thead>
<tr>
<th>Education Sector</th>
<th>Dependent Variable ($R^2$)</th>
<th>AVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Innovativeness</td>
<td>Perceived Organisational Performance</td>
</tr>
<tr>
<td>Secondary School</td>
<td>.66</td>
<td>.49</td>
</tr>
<tr>
<td>University</td>
<td>.65</td>
<td>.66</td>
</tr>
</tbody>
</table>
The following discussion examines the results of comparative testing of the secondary school sector and university sector models in terms strengths of the structural paths.

### 6.3.2.1 Comparing Path Strengths (Education Sectors)

Comparison of the structural paths across the two models revealed that the university sector model had significantly stronger standardised path coefficients from *learning orientation* to *perceived organisational performance* (H6) and *innovativeness (ISR)* (H7). In other words, the effect of *learning orientation* on both *perceived organisational performance* and *innovativeness (ISR)* was stronger in the university model. In this study *learning orientation* was conceptualised as an organisation wide activity of creating and using knowledge to enhance competitive advantage (Calantone et al., 2002). The findings in this study suggest that when recruiting international students, universities have a stronger sense of how knowledge can be used to enhance innovativeness and competitive advantage than do secondary schools. It would be expected that the functional area within an institution, responsible for the recruitment of international students would, in turn, reflect more widely held institutional beliefs. These findings may, in fact, highlight differences in the fundamental value held towards learning by university and secondary schools.

The previous sections have examined the SOP Model by comparing the model across ISR marketing strategies and also across education sectors. The SOP Model provides a useful and efficient means by which to understand how educational institutions consider organisational performance and innovativeness regarding international student recruitment and, in doing so, raises a number of practical and theoretical issues.

### 6.4 Implications

This study has revealed a number of areas in which our understanding of market and learning orientation, within the services marketing area of international student recruitment, is enhanced by the findings. The issues raised by the findings highlight the consistent need for critical thought to be applied to the dynamic fields of marketing, marketing strategy and orientation. The findings make a unique contribution to the existing body of knowledge in the areas of marketing strategy and,
in doing so, a number of practical and theoretical implications warrant recognition and subsequent discussion

### 6.4.1 Practical Implications

The ultimate value of marketing research lies in its practical application. In this regard, the SOP Model may establish itself as a relevant and valuable tool for international education marketing practitioners involved in the recruitment of international students. The practical implications of these findings are categorised into four general areas (ISR strategy and the self-typing paragraph, prevailing ISR marketing strategy types, exploiting ISR marketing strategy characteristics and competitive advantage through market orientation) and each will be discussed individually.

#### 6.4.1.1 ISR Marketing Strategy and the Self-Typing Paragraph

A classification of marketing strategies based around the construct of value is used in this study and, for educational managers attempting to understand the prevailing ISR marketing strategy within an institution, this may be beneficial. Some educational institutions recruit international students to develop a diverse student body or to facilitate personal growth rather than to achieve growth or market share and, therefore, marketing typologies that emphasise these constructs (e.g., Miles & Snow, 1978; Porter, 1980) may not be useful in identifying the ISR marketing strategy within this type of institution. Additionally, as has been previously discussed, Harvey (1996) notes the suspicion with which educational practitioners regard marketing and, therefore, using the constructs other than market growth and profit to identify ISR marketing strategies may be less confronting for educational practitioners.

The self-typing paragraph approach adopted in this study provides education marketers with a quick, simple and valid means of identifying the prevalent ISR marketing strategy within their institution. Although this approach has been extensively used within strategy research (e.g., Conant et al., 1990; James & Hatten, 1995; Snow & Hambrick, 1980), there is little evidence that it has been used outside of the Miles and Snow (1978) and Porter (1985) strategy typologies. In this study, the self-typing approach was found to be valid, real and meaningful for participants involved.
Additionally, as this method of ISR strategy identification is timely and easy to execute, this then provides education managers with a tool to measure possible ISR strategy changes over time. Education managers are able to, firstly, identify the prevailing ISR strategy within their institution and also identify a desired ISR marketing strategy. A process of strategic change can then be implemented and the progress of this change can be regularly measured again using the self-typing paragraph method. In other words, educational managers can identify the ISR marketing strategy in their institution, implement changes within the institution and then measure the effect of these changes on the institutional strategy. Alternatively, if an institution is satisfied with their prevailing ISR marketing strategy, the self-typing paragraph approach can be used to measure consistency of this ISR marketing strategy over time.

6.4.1.2 Prevailing ISR Marketing Strategy Types

When using the self-typing paragraph to identify the ISR marketing strategy at their respective institutions, informants did not all select the same strategy. This indicates that different institutions use different ISR marketing strategies to recruit international students and that when recruiting international students there is no single strategy that best fits all educational institutions. Also, within education sectors, neither secondary schools nor universities were all grouped under a single ISR marketing strategy. This indicates that a specific ISR marketing strategy within education institutions is not peculiar to one educational sector.

When completing the questionnaire, more informants self-classified the prevailing ISR marketing strategy at their institution as Operational Excellence than Customer Intimacy, Entrenched Isolation or Product Leadership. This does not, necessarily, indicate that institutions adopting a Product Leadership ISR marketing strategy will be more successful when recruiting international students. It simply means that this ISR marketing strategy is more prevalent. If planning to make a strategic change, educational managers should make their own assessment regarding whether an ISR strategy is appropriate for their own institution, operating environment and strategic objectives. Managers should not adopt recruiting practices and activities from other institutions without first assessing the fit of such activities with their own institutional strategic objectives.
6.4.1.3 Exploiting ISR Marketing Strategy Characteristics

Two outcomes were measured in this study, *innovativeness (ISR)* and *perceived organisational performance*. Interestingly, the way in which institutions can achieve greater outcomes in these areas differs according to ISR marketing strategy. The findings revealed that each ISR marketing strategy possesses at least one distinguishing characteristic (refer Table 6.1). By realising and exploiting these characteristics it may be possible for educational managers to maximise the impact of a particular ISR marketing strategy within their institution by focusing institutional resources on these distinctive characteristics. Similarly, if undertaking a process of strategic change, education managers are able to focus on the distinctive characteristics of an ISR marketing strategy during the implementation phases.

The findings here provide a framework for understanding key outcome variables such as *innovativeness (ISR)* and *perceived organisational performance* within ISR strategic orientations. For example, the findings indicate that educational institutions with an Operational Excellence ISR marketing strategy can achieve greater incremental improvements in their *innovativeness (ISR)* through achieving improvements in *market orientation*, than can other institutions. However, should *market orientation* decline in an institution with an Operational Excellence ISR marketing strategy, this will have a stronger negative effect on *innovativeness (ISR)* than for other institutions.

Similarly, institutions with a Customer Intimacy ISR marketing strategy should focus on improvements in their *learning orientation* as a means of achieving improvements in their *innovativeness (ISR)*. External market effects were found to be the greatest influence on *innovativeness (ISR)* for institutions with a Product Leadership ISR marketing strategy and, as such, these institutions should focus on developing effective market effect scanning techniques in order to achieve improvements in their *innovativeness (ISR)*.

In relation to *perceived organisational performance*, educational institutions with a Customer Intimacy ISR marketing strategy can achieve greater incremental improvements in their *perceived organisational performance* through achieving improvements in *innovativeness (ISR)* and *market orientation*, than can other institutions. However, should *innovativeness (ISR)* or *market orientation* decline in an institution with a Customer Intimacy ISR marketing strategy, this will have a
stronger negative effect on perceived organisational performance than for other institutions. Similarly, institutions with an Operational Excellence ISR marketing strategy should focus on improvements in their learning orientation as a means of achieving improvements in their perceived organisational performance. External market effects were found to be the greatest influence on ISR performance for institutions with an Entrenched Isolation ISR marketing strategy and, as such, these institutions should focus on developing effective market effect scanning techniques in order to achieve improvements in their perceived organisational performance.

6.4.1.4 Competitive Advantage through Market Orientation

Despite research suggesting that a market orientation has already been adopted in educational institutions (Mazzarol & Soutar, 2008), this study found significant relationships between market orientation with innovativeness (ISR) and perceived organisational performance for the university sector, but not for the secondary school sector. Additionally, the relationship between market orientation and perceived organisational performance was found to be significant for the Customer Intimacy model only, while the relationship between market orientation and perceived external market effects was found to be significant for only the Operational Excellence and Entrenched Isolation models. Grinstein (2008b) argues the relationship between market orientation and performance to be one of the “strongest convictions in marketing” (p. 116), yet for many institutions recruiting international students this argument clearly is not supported.

International student recruitment operates in a competitive market and, as such, educational institutions seek ways in which they may achieve a competitive advantage over other institutions. For the secondary school sector, any educational institution that is able to develop a strong market orientation and, effectively, integrate that market orientation into the ISR marketing strategy within the institution, clearly has a potential source of competitive advantage. Additionally, as a particularly strong market orientation is uncommon within the education sector when recruiting international students, an institution may seek to use the development of a market orientation as a point of differentiation. This leads to many possibilities in terms of positioning and branding the institution within the international student recruitment market.
6.4.2 Theoretical Implications
The Strategic Orientation Performance Model also makes a number of important theoretical contributions to the marketing strategy and orientation literatures. The theoretical implications of these findings are categorised into five areas (the Value Discipline typology, Entrenched Isolation ISR marketing strategy, methodological contribution, the SOP Model and contribution to market orientation) and each will be discussed individually.

6.4.2.1 The Value Discipline Typology
The strategic typologies developed by Miles and Snow (1978) and Porter (1980) are prevalent in much of the research into marketing strategy identification, however, due to a focus on market share and profit (refer Section 6.4.1.1), these typologies may be more appropriate for profit organisations than not-for-profit organisations such as many educational institutions. In particular, when recruiting international students, some educational institutions focus on the development of a diverse student body or the facilitation of personal growth, rather than achieving growth or market share.

This study incorporates the Value Discipline strategies of Operational Excellence, Product Leadership and Customer Intimacy (Treacy & Wiersema, 1995) into a typology which permits international education marketing practitioners and managers to identify the prevalent ISR marketing strategy within their educational institution through a focus on the construct of value. This typology is found to be real and meaningful for international education marketing practitioners and permits the identification of the prevalent ISR marketing strategy within an institution without difficulty or problem reported by any respondent at either the preliminary interview stage or during the subsequent implementation of the survey instrument. As such, this validates and extends the use of the Value Discipline typology for marketing strategy identification within services and, particularly, within the area of not-for-profit services.

6.4.2.2 Entrenched Isolation ISR Marketing Strategy
A new ISR marketing strategy emerged during pilot testing of the Value Discipline strategies (refer Chapter 4, Section 4.3.2.3.8) and was, subsequently, included as an ISR strategy in the final survey. As previously discussed, this strategy shares some
similarities with the reactor strategy of Miles and Snow (1978), however, the Entrenched Isolation ISR marketing strategy was found to be a particularly focussed strategy, rather than a random or inconsistent response to environmental changes (Daft & Weick, 1984; Parnell & Wright, 1993; Smith, Guthrie, & Chen, 1989) as is often used to describe the reactor strategy. Rather than a random or inconsistent response, in fact, the Entrenched Isolation ISR marketing strategy is characterised by a strong inward focus with active retention and protection of knowledge and a strong and active resistance to external influences.

In the subsequent administering of the survey instrument, 22.8% of all respondents nominated the Entrenched Isolation ISR marketing strategy as the dominant ISR marketing strategy within their institution. This placed the Entrenched Isolation strategy as the third most prevalent ISR marketing strategy, after Operational Excellence and Customer Intimacy but ahead of Product Leadership. As such, this study validates the existence of the Entrenched Isolation strategy within the international student recruitment operations of Australian universities and secondary schools. Further research is required to investigate the existence and applicability of this strategy in other educational contexts and across other industry sectors.

6.4.2.3 Methodological Contribution

The self-typing paragraph approach has been widely used as a method of identifying the existing strategy within an organisation (e.g., Matsuno & Mentzer, 2000; Slater et al., 2007; Snow & Hrebiniak, 1980; Vorhies & Morgan, 2003) and has been shown to realise valid measures (James & Hatten, 1995; Shortell & Zajac, 1990). Previous studies, however, have largely used this method to identify the Miles and Snow (1978) strategic typology within an organisation.

In this study, the self-typing paragraph method is applied to the value discipline and Entrenched Isolation strategy typology and is used to identify the ISR marketing strategy within educational institutions. To date, the use of this method with the value discipline typology, or in an educational institution context, has not been identified. This makes an important theoretical contribution in that it suggests that the self-typing paragraph may be robust across different strategy typologies and across a variety of organisational contexts. In the case of the present study it allowed the robustness of
the Strategic Orientation Performance Model (SOP) to be investigated across four differing ISR marketing strategies.

6.4.2.4 The Strategic Orientation Performance (SOP) Model

The Strategic Orientation Performance (SOP) Model makes an important contribution to theory in that it extends the model previously developed by Baker and Sinkula (1999a) which, itself, is an integration of models developed by Han et al. (1998) and Hurley and Hult (1998). A number of important additions and modifications have been incorporated into the SOP Model which are designed to increase the relevance and applicability of the model across a wide variety of both profit and not-for-profit contexts.

The addition of the construct *perceived external market effects* and the subsequent investigation of a direct relationship between this construct and *innovativeness (ISR)* and *perceived organisational performance* is an important theoretical contribution of the SOP Model. Through testing the direct relationships between these constructs, the SOP Model seeks to identify the extent to which external market effects directly influence the innovativeness (ISR) and performance of an organisation. Previous research has tended to consider external effects as a moderator of relationships between constructs such as market orientation or learning orientation and performance or innovation (e.g., Jaworski & Kohli, 1993; Langerak et al., 2007; McKee et al., 1989; Slater & Narver, 1994), whereas the SOP Model considers external environment to be a direct influence on innovativeness and organisational performance. The SOP Model clearly shows the existence of direct relationships between *perceived external market effects* and *innovativeness (ISR)* and between *perceived external market effects* and *perceived organisational performance*. Additionally, the SOP Model shows that these relationships are not significant across all strategy types, nor are they significant across all organisational contexts and that, in the instances where a significant relationship is found, the strength of this relationship also varies across different strategy types and organisational contexts. In this sense, the SOP Model expands on current theory by demonstrating a new way of considering the impact of external market effects on the outcomes of innovativeness and organisational performance.
The SOP Model has expanded the model developed by Baker and Sinkula (1999a) by re-working the *product innovation* construct to *innovativeness (ISR)* and re-working the *organisational performance* construct to *perceived organisational performance*. Baker and Sinkula (1999a) conceptualise *product innovation* as relating to the number, timeliness and success of new product introductions. This is considered too restrictive for the current study and a more holistic approach to innovation is adopted in which the notion of openness to new ideas as an aspect of an organisation’s culture is investigated (Hurley & Hult, 1998). In developing a measure of organisational performance, Baker and Sinkula (1999a) focus on objective measures regarding sales and profit information. However, in the context of the current study, a more holistic approach to organisational performance is adopted using the subjective measures of overall performance and perceived market performance. Such measures are useful when the respondents may not have sufficient organisational knowledge to accurately assess more objective constructs. Furthermore, the use of subjective performance measures has previously been demonstrated as valid (Dess & Robinson, 1984; Gray et al., 1999).

The nomological network of relationships depicted in the SOP Model contrasts that of many researchers in the strategy area who, through a much narrower focus, attempt to develop an understanding of the relationships between fewer variables. For example, the relationship between market orientation and performance was investigated by Gray et al. (1999) and McKee et al. (1989); Calantone et al. (2002) investigated the relationship between learning orientation and innovativeness and performance; the relationship between learning and market orientation and performance was investigated by Farrell (2000) and Baker and Sinkula (1999b); and Baker and Sinkula (2002) investigated the relationship between learning and market orientation and product innovation. While research such as this has assisted in proposing and verifying variables of importance, they lack the depth of “big picture” findings such as that provided by the SOP Model. Through the adoption of a more holistic approach in the marketing strategy and strategic orientation domains a more synergistic effect may be experienced whereby the whole is much greater and much richer than merely the sum of its parts.
6.4.2.5 Market Orientation

Lastly, the current study makes an important theoretical contribution to the discordant body of literature regarding the existence of a direct relationship between market orientation and organisational performance. Within the literature, the relationship between market orientation and performance is found to be positive and direct (Baker & Sinkula, 1999b; Narver & Slater, 1990; Ruekert, 1992; Slater & Narver, 1994); not significant (Baker & Sinkula, 1999a; Diamantopoulos & Hart, 1993; Olavarrieta & Friedmann, 2008); and mixed (Gray et al., 1999; Greenley, 1995b; Jaworski & Kohli, 1993). The current study positions itself in the latter category. Although the overall SOP Model displayed support for both market orientation hypotheses (H4 and H5) mixed findings emerged when the model was tested across ISR marketing strategies and education sectors. Significant relationships between market orientation and innovativeness (ISR) were found for Operational Excellence and Entrenched Isolation models while a significant relationship between market orientation and perceived organisational performance was found for the Customer Intimacy model only. No significant relationship between market orientation and innovativeness (ISR) or perceived organisational performance was evident for the secondary school sector. However, for the university sector the both relationships were found to be significant. The reasons for these observed differences remain unclear, however, it provides a strong impetus for further research.

In summary, the findings of this study have advanced our understanding of how educational institutions conceptualise the constructs of performance and innovativeness in relation to the recruitment of international students. Firstly, empirical testing provided validation of the theory from the marketing practitioners’ viewpoint in the context of international student recruitment, not attempted previously. Secondly, the theory considers previously investigated constructs, such as perceived external market effects, in new ways resulting in new findings. Finally, the theory does not assume the independency of dimensions such as market orientation, learning orientation or innovativeness. In doing so, the SOP Model provides a good theoretical example for future strategic orientation models.
6.5 Limitations
The limitations of any study highlight aspects which are important to acknowledge. Rather than to lessen the impact of the findings, the limitations of this study are discussed to clearly establish boundaries and serve to identify future avenues for research. Firstly, any survey-based method, including that adopted in this study, involves some degree of measurement error. For example, the elicitation of a scale measurement depends on the respondent’s ability to accurately report their level of agreement with the survey statements regarding their organisation’s market and learning orientations, environmental factors, level of innovativeness and perceived organisational performance. Nonetheless, the measurement errors in this study do not appear to be too large or problematic, as indicated by the good reliability results reported in Chapter Five.

Secondly, as data collection was conducted in only Australia, issues surrounding the generalisability of the findings beyond this specific geographical region must be considered. However, as Australia is ranked within the top five English speaking destination countries, in terms of numbers of international students (AEI, 2007b; Skilbeck & Connell, 2006), it is proposed that the findings could be effectively generalised beyond Australia and may confidently be generalised within other countries involved in the recruitment of international students.

Lastly, this study investigated only two education sectors, university and secondary school and, therefore, it could be suggested that the generalisability of the findings beyond these education sectors could be problematic. However, as discussed in Chapter 3 (refer Chapter 3, Section 3.6), these two sectors were specifically selected due to their many similarities regarding international student recruitment operations and practices (Ross et al., 2007). Future studies may include other education sectors such as the English Language Intensive Courses for Overseas Students sector (ELICOS) or the Vocational Education and Training sector (VET) thereby potentially providing a more complete picture.

6.6 Future Research
The implications and limitations of this study prompt a number of recommendations regarding future research including further investigations into the self-typing
paragraph and the ISR marketing strategy typology; the Entrenched Isolation strategy; ISR marketing strategy antecedents and strategic change; robustness of the SOP Model; the external environment and organisational performance; and innovativeness. Each of these will be discussed separately.

6.6.1 Self-Typing Paragraph and the ISR Marketing Strategy Typology
In this study, respondents were easily able to use the enhanced Value Discipline strategic typology and the self-typing paragraph method to identify the prevalent ISR marketing strategy in their own institution. To date, the literature does not reveal that this method or typology have previously been used together. Additionally, the self-typing paragraph method has not previously been used to identify the Entrenched Isolation marketing strategy. As such, it is pertinent that future studies incorporate other methods of strategy identification so that a correlation of results across a variety of methods can be investigated.

6.6.2 Entrenched Isolation Strategy
The identification of the Entrenched Isolation strategy provides an interesting new direction in the area of marketing strategy research. This ISR marketing strategy emerged during interviews with international education marketing practitioners (refer Chapter 4, Section 4.3.2.3.8) and was subsequently included in the ISR strategy typology used in the survey of this study. Although this strategy shares some characteristics of the reactor strategy of Miles and Snow (1978), the Entrenched Isolation strategy was found to be fundamentally different to the reactor strategy. A sizeable proportion (22.8%) of survey respondents subsequently identified the newly discovered Entrenched Isolation strategy as the prevailing ISR marketing strategy within their institution, thereby lending some credibility to the existence of this strategy. As such, further research is required to investigate the existence and applicability of this strategy in other educational contexts and across other industry sectors.

6.6.3 ISR Marketing Strategy Antecedents and Strategic Change
This study provides a conceptualisation of current ISR marketing strategies within educational institutions, however, the antecedents of a particular ISR strategy are not investigated as part of this study and remain to be investigated. Additionally, the
extent of institutional performance success based on strategic choices is not investigated as part of this study. This may provide interesting future research. It may be possible to identify a series of strategy antecedents and then investigate the strength and importance of particular antecedents for specific ISR marketing strategies. Additionally, it may be possible to investigate relationships between strategy antecedents, the subsequent strategy choices made by an institution and the success of those strategic choices. This may also provide an opportunity to gain insight into how, and if, ISR marketing strategies develop and change over time and the factors that cause or hinder change for different ISR marketing strategies.

6.6.4 Robustness of the SOP Model

The SOP Model was conceptualised in relation to international student recruitment and was found to provide mixed results across education sectors. One previously discussed limitation of this study was that the findings were generated from two education sectors. This provides a strong base for further research, however, it may be argued that these limitations impact the generalisability of the results. As such, it is important that the robustness of the SOP Model be investigated across other education sectors such as the English Language Intensive Courses for Overseas Students sector (ELICOS) or the Vocational Education and Training sector (VET) thereby potentially providing a more complete picture. As well, the SOP Model could be used to investigate education sectors from a wider range of countries thereby achieving increased generalisability of the results. Further to this, and in order to build an even greater understanding of this model, the SOP Model could be investigated for its applicability to other industries, both services and non-services.

6.6.5 External Market Effects and Organisational Performance

In this study a direct and positive relationship was found to exist between perceived external market effects and perceived organisational performance. As previously discussed, the impact of external market effects on performance has previously been considered (e.g., Jaworski & Kohli, 1993; Langerak et al., 2007; McKee et al., 1989; Slater & Narver, 1994), however, this construct has mostly been considered as a moderating variable and as such the direct relationship has not been investigated. The finding of a direct relationship between external market effects and organisational performance is particularly interesting and requires further investigation across a
variety of settings so that the existence and the robustness of this relationship can be verified.

6.6.6 Innovativeness (ISR)
Lastly, innovativeness (ISR) was found to be an important construct within the SOP Model. However, Deshpande and Farley (2004) find innovativeness to be more important to the industrial world than the industrialising world. The setting for the current study was in the industrial world, and this world comprises the majority of the international education market yet, throughout the industrialising world, small international education markets are emerging. As these emerging international education markets develop, so to may the opportunity to investigate the claim made by Deshpande and Farley (2004).

6.7 Conclusion
Global growth in international education continues to be strong and for many countries international students make an important cultural and economic contribution. For many educational institutions, international students have allowed institutions to maintain and develop academic programs in the face of decreasing government support. Also international students continue to make an important cultural contribution to the life of institutions. However, in this climate of growth in international education, educational institutions face increasing competition for international students as more countries and educational institutions seek to recruit international students.

Despite this level of growth and increasing competition, research investigating international student recruitment by educational institutions is lacking. Of the small number of existing studies, many investigate the university sector to the detriment of all other education sectors. To address this lack of empirical investigation, this study sought to, firstly, develop a theoretical model of strategic orientation and performance and, secondly, empirically validate the model from the international education practitioner’s perspective. The result was the development and empirical validation of the Strategic Orientation Performance (SOP) Model.
The development of the SOP Model was the result of the systematic synthesis of market orientation, learning orientation, innovativeness (ISR), external market effects and performance literatures. In order to test the SOP Model, every effort was made, via both qualitative inquiry (e.g., interviews, expert panel evaluation) and quantitative evaluation (e.g., pilot testing), to construct a psychometrically sound survey instrument that addressed the research objectives of this study. Data collection via online survey resulted in the gathering of 302 surveys appropriate for use in the analysis. In the data analysis stage every effort was made to ensure the reliability and validity of the scales prior to testing the model via PLS regression analysis. The PLS analysis resulted in the empirical validation of the SOP Model whereby all hypotheses were supported.

In achieving empirical validation, the SOP Model has made a significant contribution to existing marketing strategy and strategic orientation theory and has addressed the weaknesses of previously developed models. The findings of this study are significant and have prompted a number of practical recommendations concerning ISR strategy and the self-typing paragraph, prevailing ISR marketing strategy types, exploiting ISR marketing strategy characteristics and achieving competitive advantage through market orientation. The study makes a number of important theoretical contributions concerning the Value Discipline typology, Entrenched Isolation ISR marketing strategy, additional application of the self-typing paragraph, the development of the SOP Model, market orientation and direct influences on perceived organisational performance. This study, and the SOP Model, provide a perspective on how orientation and innovativeness affect perceived organisational performance within educational services and open the door for future research in this important research area.
Appendix A

Survey
International Student Recruitment

2. Consent

Consent Form

The survey questions will only be available to you once you have clicked on the "Continue" button at the end of this consent form. By clicking on that button, you are confirming that you have read and understood the information sheet and in particular have noted that:

- I understand that my involvement in this research will involve completing an online survey;
- I have had any questions answered to my satisfaction;
- I understand the risks involved;
- I understand that there will be no direct benefit to me from my participation in this research;
- I understand that my participation in this research is voluntary;
- I understand that if I have any additional questions I can contact the research team;
- I understand that I am free to withdraw at any time, without comment or penalty;
- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (+61) 7 3735 5585 or via research-ethics@griffith.edu.au if I have any concerns about the ethical conduct of the project; and
- I agree to participate in this research.

1. Do you wish to proceed

☐ Yes, I agree to the above consent form
☐ No, I don't agree to the above consent form

International Student Recruitment

3. Questionnaire

2. Does your institution accept enrolments from international students?

☐ Yes
☐ No

International Student Recruitment

4. Current Activity

3. Currently, does your institution actively recruit international students?

☐ Yes
☐ No

International Student Recruitment

5. Previous Activity

4. Has your institution ever actively recruited international students?

☐ Yes
☐ No
International Student Recruitment

6. General Information

5. In what year did your institution start to actively recruit international students? If you no longer actively recruit please also give your final active year.

6. What is your current total international student population?

7. What is your current total student population (international + domestic)?

8. In which education sector does your institution mostly operate?
   - Secondary school
   - University

International Student Recruitment

7. Marketing Strategies

10. Are you aware of your institution/school currently having marketing strategies for recruiting international students?
   - Yes
   - No
   - Unsure

International Student Recruitment

8. Current Strategy Information

11. How would you describe the development process for these marketing strategies?
   - Mostly formal
   - Mostly informal
   - Other (please specify)

12. During the course of a normal year how many times are these strategies usually reviewed?
13. Read the following four strategy types and select which strategy, you believe, most closely fits your institution. Rank your selections from "Closest fit" through to "Least closest fit".

**Strategy A**
At this institution there is a tendency to optimise procedures to minimise costs. Our organisational structure encourages standardised operations. Our systems are integrated with an emphasis on reliable transactions. Our culture rewards efficiency.

**Strategy B**
At this institution there is a tendency towards invention and development. Our organisational structure encourages entrepreneurialism. Our systems are results driven. Our culture encourages imagination.

**Strategy C**
At this institution there is a tendency towards solution development. Our organisational structure encourages delegating decision-making. Our systems are focussed on creating results. Our culture is focussed on relationships.

**Strategy D**
At this institution there is a tendency to develop secure departments each with their own knowledge base. Our organisational structure encourages retention of information within each department. Our systems are focussed on individual performance. Our culture encourages individuals to develop competencies in specific areas.

<table>
<thead>
<tr>
<th></th>
<th>Strategy A</th>
<th>Strategy B</th>
<th>Strategy C</th>
<th>Strategy D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closest fit</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2nd closest fit</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3rd closest fit</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Least closest fit</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
**10. Market Orientation**

**IMPORTANT NOTE:** Throughout this survey, the term "International student recruitment department" is used to describe the many department types, sizes, and structures responsible for recruiting international students in the school and university sectors. In some institutions, this department may comprise of a single staff member whilst in other institutions it will be larger.

For the next few questions please reflect on the department or office or area in your institution that is the international student recruitment department.

### 14. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V1</strong> We encourage comments and feedback from our international students because they help us do a better job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V2</strong> An important part of our business strategy is ensuring that the needs of our international students are met after they have enrolled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V3</strong> We have a strong commitment to our international students and their families.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V4</strong> We are always looking at ways to create value for our international students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V5</strong> We measure the satisfaction of our international students on a regular basis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 15. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V6</strong> We regularly monitor our competitors' international student recruitment efforts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V7</strong> We frequently collect marketing data on our competitors to help direct our international student recruitment plans.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V8</strong> Our staff who are involved in international student recruitment are instructed to monitor and report on competitor activity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### International Student Recruitment

16. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my institution, international student recruitment information is shared with all departments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We regularly have inter-departmental meetings to discuss international student recruitment trends and developments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff involved in international student recruitment regularly discuss international student needs with other departments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff involved in international student recruitment regularly interact with other departments on a formal basis.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In this institution all departments are involved in the preparation of international student recruitment plans and strategies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our international student recruitment department does a good job integrating the international activities of all departments in this institution.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### International Student Recruitment

17. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our international student recruitment department tends to ignore changes in international students' product or service needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In our international student recruitment department, we periodically review our product development efforts to ensure they are in line with what international students want.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In our international student recruitment department, business plans are driven more by technological advances than by market research.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our international student recruitment department would implement an immediate response if a major competitor were to launch an intensive campaign targeted at our international student markets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our international student recruitment department is quick to respond to significant changes in our competitors' pricing structures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Even if we came up with a great marketing plan, our international student recruitment department probably would not implement it in a timely fashion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# International Student Recruitment

**11. Learning Orientation**

**IMPORTANT NOTE**
Throughout this survey, the term "international student recruitment department" is used to describe the many department types, sizes, and structures responsible for recruiting international students in the school and university sectors. In some institutions, this department may comprise of a single staff member whilst in other institutions, it will be larger.

For the next few questions, please reflect on the department or office or area in your institution that is the international student recruitment department.

## 18. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>The basic values of our international student recruitment department</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability of our international student recruitment department to learn is the key to our competitive advantage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The view is that international student recruitment department is not staff learning is an investment, risk, and expense</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning in our international student recruitment department is seen as a key commodity necessary to guarantee the survival of this institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The culture in our international student recruitment department is such that does not make staff learning a top priority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The collective wisdom in our international student recruitment department is that once we stop learning, we endanger the future of this institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### International Student Recruitment

19. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our international student recruitment department has a well-expressed concept of who we are and where we are going.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>There is total agreement on the vision of our international student recruitment department throughout this institution</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>All staff are committed to the goals of our international student recruitment department.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>In our international student recruitment department, staff view themselves as partners in charting the direction of our student recruitment marketing.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Our leadership believes in sharing its vision for our international student recruitment among all staff.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>We do not have a well-defined vision for the international student recruitment department.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>


## International Student Recruitment

20. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are not afraid to reflect critically on the shared assumptions we have about the way we do business.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers in the international student recruitment department do not want their &quot;view of the world&quot; to be questioned.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our international student recruitment department places a high value on open-mindedness.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the international student recruitment department, managers encourage employees to &quot;think outside of the box.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An emphasis on constant innovation is part of our international student recruitment department culture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Original ideas are highly valued in this international student recruitment department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. Indicate your level of agreement with the following statements.

**The International student recruitment department in this institution ...**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>v39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>v44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### International Student Recruitment

**23. Indicate your level of agreement with the following statements.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition in the international student recruitment industry is very aggressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are many &quot;promotion wars&quot; in the international student recruitment industry.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the international student recruitment industry, anything that one competitor can offer, others can match readily.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price competition is a hallmark of the international student recruitment industry.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One hears of new international student recruitment competitors almost every day.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our international student recruitment competitors are relatively weak.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over the past five years, recruitment activities of our key competitors have become far more aggressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over the past five years, recruitment activities of our key competitors have become far more agressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over the past five years, recruitment activities of our key competitors have become far more agressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over the past five years, recruitment activities of our key competitors have become far more agressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over the past five years, recruitment activities of our key competitors have become far more agressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over the past five years, recruitment activities of our key competitors have become far more agressive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the international education industry, legal, political and economic constraints (e.g. Government regulations) have proliferated greatly over the past five years.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## International Student Recruitment

### 24. Indicate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
<th>Undecided</th>
<th>Slightly Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology used in international student recruitment is changing rapidly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological advancements provide big opportunities in the international student recruitment industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A large number of new product ideas have been made possible through technological breakthroughs in the international student recruitment industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological developments in the international student recruitment industry are rather minor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 25. Indicate your level of agreement with the following statements.

Consider the overall performance of your international student recruitment department.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The overall performance of our international student recruitment department was as expected last year.

The overall performance of our international student recruitment department last year exceeded that of our major competitors.

The management was very satisfied with the overall performance of the international student recruitment department last year.

### 26. Indicate your level of agreement with the following statements.

Consider the performance of your international student recruitment department over the last three years. Compared to your competitors, your department has performed better in . . .

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Moderately disagree</th>
<th>Slightly disagree</th>
<th>Undecided</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Achieving international student satisfaction.

Providing value for international students.

Attracting new international students.

Retaining current international students.

Attracting desired growth.

Securing desired market share.

Thank you for your time completing this survey.

If you would like to receive an aggregated copy of the research findings please email Mitchell Ross at m.ross@greiffith.edu.au.

---

182
Appendix B

Entrenched Isolation ISR Strategy
Entrenched Isolation ISR strategy
Respondents’ comments suggesting existence of this strategy

- Marketing strategies are developed within the International Education Office and contained within the department. Specific responsibilities for individuals.

“Our marketing strategies have historically been developed by having people who have country specific expertise and responsibilities. They develop networks and a lot of knowledge of regulatory environments and the marketing and student demand. Our marketing strategies haven’t been reviewed.”

Institution G - University

- Influence from outside the International Office is actively resisted.

“There are some people [from outside the international office] who think we should go to operational excellence . . . . but we are not going to let them do it.”

Institution G - University

- Decision making is kept within the department - not delegated.

“I wouldn’t say that we have a culture that encourages delegation of decision-making.”

Institution F – University

- Knowledge is guarded by a few (in this case “we” refers to two people). Protection of knowledge.

“We review our existing markets – we have been doing this for a while so we know who to contact and how to keep the marketing program rolling along. Much of the strategy is in our heads because we have been doing this for a while.”

Institution B – School

- All international activity resides in one location – creation of a silo – international office.

“We are the international part of the university. The aim is that all international activity will sit here. It’s very clear to the university that this is where all that resides.”

Institution J – University

- Resistance to change in the International Office

“It is hard for some people to give up some things they have developed.”

Institution J – University
• Actively maintaining control over a period of years. Ownership

“I’ve been here for ten years so I’ve been here since there was nothing. In my institution I have had a lot of autonomy. I’ve been able to structure the job in a way that I have felt has suited me. I’ve found that people who get frustrated in the job and find it irritating are people who haven’t got very much control over how it is going and what’s happening”.

Institution E – school

• Development and maintenance of a system of entrenched isolation

“[We have] an organisational structure that encourages operations where you have an international education office which does marketing on behalf of all government schools. [O]ur principals are not allowed to go overseas and market and everything is done through this office. They [principals] are in charge of the education system in their school. They are the business manager and they are the leader of their operation and as far as I’m concerned that is their major function”.

Institution C - School
Appendix C
Invitation Email
Dear International Education Practitioner

Few people would argue about the importance of international students for many educational institutions, yet we actually know very little about how institutions go about recruiting international students. To develop a deeper understanding of international student recruitment, a research project investigating international student recruitment in schools and universities in Australia is currently being conducted by Mitchell Ross and Dr Debra Grace from the Department of Marketing at Griffith University, Australia.

I invite you to participate in this research by completing an online survey. By doing so, you will be making an important contribution to the development of international student recruitment. All contributions to this survey are important, irrespective of the size of your institution, the number of international students enrolled or the number of staff involved in international student recruitment.

A link to the survey is included in this email. All responses are anonymous and confidential and no individual institution or participant will be identified. If you have any questions or comments about this research project please do not hesitate to contact me.

LINK REMOVED http://www.surveymonkey.com/ LINK REMOVED

Yours sincerely
Mitchell Ross
Appendix D
Descriptive Statistics
## Descriptive Statistics

<table>
<thead>
<tr>
<th>N</th>
<th>Mean Statistic</th>
<th>Std. Deviation Statistic</th>
<th>Skewness Statistic</th>
<th>Kurtosis Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1</td>
<td>302</td>
<td>6.2748</td>
<td>1.20656</td>
<td>-2.393</td>
</tr>
<tr>
<td>v2</td>
<td>302</td>
<td>6.2748</td>
<td>1.21479</td>
<td>-2.152</td>
</tr>
<tr>
<td>v3</td>
<td>302</td>
<td>6.2914</td>
<td>1.15617</td>
<td>-2.197</td>
</tr>
<tr>
<td>v4</td>
<td>302</td>
<td>5.8609</td>
<td>1.42610</td>
<td>-1.462</td>
</tr>
<tr>
<td>v5</td>
<td>302</td>
<td>5.4007</td>
<td>1.79193</td>
<td>-1.035</td>
</tr>
<tr>
<td>v6</td>
<td>302</td>
<td>4.1954</td>
<td>2.06173</td>
<td>-.386</td>
</tr>
<tr>
<td>v7</td>
<td>302</td>
<td>3.7285</td>
<td>2.15182</td>
<td>.075</td>
</tr>
<tr>
<td>v8</td>
<td>302</td>
<td>3.6954</td>
<td>2.23084</td>
<td>.012</td>
</tr>
<tr>
<td>v9</td>
<td>302</td>
<td>4.3609</td>
<td>1.99972</td>
<td>-.393</td>
</tr>
<tr>
<td>v10</td>
<td>302</td>
<td>4.0099</td>
<td>2.22114</td>
<td>-.130</td>
</tr>
<tr>
<td>v11</td>
<td>302</td>
<td>4.7682</td>
<td>1.98313</td>
<td>-.622</td>
</tr>
<tr>
<td>v12</td>
<td>302</td>
<td>4.7351</td>
<td>2.02214</td>
<td>-.705</td>
</tr>
<tr>
<td>v13</td>
<td>302</td>
<td>3.3642</td>
<td>2.13648</td>
<td>.314</td>
</tr>
<tr>
<td>v14</td>
<td>302</td>
<td>4.5033</td>
<td>1.90601</td>
<td>-.577</td>
</tr>
<tr>
<td>v15</td>
<td>302</td>
<td>2.4437</td>
<td>1.64906</td>
<td>1.228</td>
</tr>
<tr>
<td>v16</td>
<td>302</td>
<td>5.0166</td>
<td>1.68136</td>
<td>-.942</td>
</tr>
<tr>
<td>v17</td>
<td>302</td>
<td>2.6291</td>
<td>1.45184</td>
<td>.587</td>
</tr>
<tr>
<td>v18</td>
<td>302</td>
<td>3.4801</td>
<td>1.87072</td>
<td>.333</td>
</tr>
<tr>
<td>v19</td>
<td>302</td>
<td>3.1921</td>
<td>1.84162</td>
<td>.454</td>
</tr>
<tr>
<td>v20</td>
<td>302</td>
<td>2.4801</td>
<td>1.62352</td>
<td>.920</td>
</tr>
<tr>
<td>v21</td>
<td>302</td>
<td>5.5861</td>
<td>1.34592</td>
<td>1.403</td>
</tr>
<tr>
<td>v22</td>
<td>302</td>
<td>5.2417</td>
<td>1.42981</td>
<td>-.638</td>
</tr>
<tr>
<td>v23</td>
<td>302</td>
<td>5.3113</td>
<td>1.62082</td>
<td>-.102</td>
</tr>
<tr>
<td>v24</td>
<td>302</td>
<td>4.8874</td>
<td>1.69636</td>
<td>-.595</td>
</tr>
<tr>
<td>v25</td>
<td>302</td>
<td>3.1291</td>
<td>1.79697</td>
<td>.334</td>
</tr>
<tr>
<td>v26</td>
<td>302</td>
<td>4.7980</td>
<td>1.64112</td>
<td>-.562</td>
</tr>
<tr>
<td>v27</td>
<td>302</td>
<td>5.0728</td>
<td>1.76567</td>
<td>-.866</td>
</tr>
<tr>
<td>v28</td>
<td>302</td>
<td>3.8311</td>
<td>1.75244</td>
<td>-.034</td>
</tr>
<tr>
<td>v29</td>
<td>302</td>
<td>4.1358</td>
<td>1.81305</td>
<td>-.315</td>
</tr>
<tr>
<td>v30</td>
<td>302</td>
<td>4.6755</td>
<td>1.74847</td>
<td>-.576</td>
</tr>
<tr>
<td>v31</td>
<td>302</td>
<td>4.4139</td>
<td>1.82931</td>
<td>-.394</td>
</tr>
<tr>
<td>v32</td>
<td>302</td>
<td>3.3079</td>
<td>1.94813</td>
<td>.481</td>
</tr>
<tr>
<td>v33</td>
<td>302</td>
<td>5.0795</td>
<td>1.58491</td>
<td>-.852</td>
</tr>
<tr>
<td>v34</td>
<td>302</td>
<td>2.7815</td>
<td>1.69186</td>
<td>.823</td>
</tr>
<tr>
<td>v35</td>
<td>302</td>
<td>4.9570</td>
<td>1.67296</td>
<td>-.707</td>
</tr>
<tr>
<td>v36</td>
<td>302</td>
<td>5.2748</td>
<td>1.54682</td>
<td>1.031</td>
</tr>
<tr>
<td>v37</td>
<td>302</td>
<td>4.6656</td>
<td>1.71298</td>
<td>-.416</td>
</tr>
<tr>
<td>v38</td>
<td>302</td>
<td>5.0530</td>
<td>1.54785</td>
<td>.809</td>
</tr>
<tr>
<td>v39</td>
<td>302</td>
<td>4.8510</td>
<td>1.59348</td>
<td>-.716</td>
</tr>
<tr>
<td>v40</td>
<td>302</td>
<td>5.1291</td>
<td>1.57214</td>
<td>1.000</td>
</tr>
<tr>
<td>v41</td>
<td>302</td>
<td>4.7583</td>
<td>1.60704</td>
<td>-.684</td>
</tr>
<tr>
<td>v42</td>
<td>302</td>
<td>3.6391</td>
<td>1.77624</td>
<td>.131</td>
</tr>
<tr>
<td>v43</td>
<td>302</td>
<td>2.7450</td>
<td>1.45972</td>
<td>.618</td>
</tr>
<tr>
<td>v44</td>
<td>302</td>
<td>4.4470</td>
<td>1.50155</td>
<td>-.342</td>
</tr>
<tr>
<td>v45</td>
<td>302</td>
<td>3.6921</td>
<td>1.42866</td>
<td>.224</td>
</tr>
<tr>
<td>v46</td>
<td>302</td>
<td>4.6424</td>
<td>1.45060</td>
<td>-.647</td>
</tr>
<tr>
<td>v47</td>
<td>302</td>
<td>3.7219</td>
<td>1.56013</td>
<td>.217</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>v48</td>
<td>302</td>
<td>2.9768</td>
<td>1.29250</td>
<td>.257</td>
</tr>
<tr>
<td>v49</td>
<td>302</td>
<td>4.4437</td>
<td>1.42887</td>
<td>-.374</td>
</tr>
<tr>
<td>v50</td>
<td>302</td>
<td>5.6987</td>
<td>1.36104</td>
<td>-.850</td>
</tr>
<tr>
<td>v51</td>
<td>302</td>
<td>4.7881</td>
<td>1.38626</td>
<td>-.474</td>
</tr>
<tr>
<td>v52</td>
<td>302</td>
<td>4.2020</td>
<td>1.47929</td>
<td>-.296</td>
</tr>
<tr>
<td>v53</td>
<td>302</td>
<td>3.8179</td>
<td>1.53040</td>
<td>-.116</td>
</tr>
<tr>
<td>v54</td>
<td>302</td>
<td>3.3046</td>
<td>1.50301</td>
<td>.073</td>
</tr>
<tr>
<td>v55</td>
<td>302</td>
<td>2.4967</td>
<td>1.35605</td>
<td>.639</td>
</tr>
<tr>
<td>v56</td>
<td>302</td>
<td>3.5662</td>
<td>1.27352</td>
<td>.244</td>
</tr>
<tr>
<td>v57</td>
<td>302</td>
<td>4.2980</td>
<td>1.52191</td>
<td>-.496</td>
</tr>
<tr>
<td>v58</td>
<td>302</td>
<td>4.2086</td>
<td>1.65441</td>
<td>-.296</td>
</tr>
<tr>
<td>v59</td>
<td>302</td>
<td>5.4801</td>
<td>1.27248</td>
<td>-.705</td>
</tr>
<tr>
<td>v60</td>
<td>302</td>
<td>5.2252</td>
<td>1.15665</td>
<td>-.422</td>
</tr>
<tr>
<td>v61</td>
<td>302</td>
<td>5.3079</td>
<td>1.15042</td>
<td>-.320</td>
</tr>
<tr>
<td>v62</td>
<td>302</td>
<td>4.7053</td>
<td>1.30010</td>
<td>-.398</td>
</tr>
<tr>
<td>v63</td>
<td>302</td>
<td>2.8113</td>
<td>1.37882</td>
<td>.190</td>
</tr>
<tr>
<td>v64</td>
<td>302</td>
<td>4.8642</td>
<td>1.71706</td>
<td>-.826</td>
</tr>
<tr>
<td>v65</td>
<td>302</td>
<td>4.0960</td>
<td>1.62437</td>
<td>-.114</td>
</tr>
<tr>
<td>v66</td>
<td>302</td>
<td>5.0563</td>
<td>1.47408</td>
<td>-.856</td>
</tr>
<tr>
<td>v67</td>
<td>302</td>
<td>4.7583</td>
<td>1.31356</td>
<td>-.378</td>
</tr>
<tr>
<td>v68</td>
<td>302</td>
<td>4.9735</td>
<td>1.28599</td>
<td>-.573</td>
</tr>
<tr>
<td>v69</td>
<td>302</td>
<td>4.8775</td>
<td>1.39108</td>
<td>-.547</td>
</tr>
<tr>
<td>v70</td>
<td>302</td>
<td>4.9868</td>
<td>1.51400</td>
<td>-.683</td>
</tr>
<tr>
<td>v71</td>
<td>302</td>
<td>4.7483</td>
<td>1.62505</td>
<td>-.453</td>
</tr>
<tr>
<td>v72</td>
<td>302</td>
<td>4.3874</td>
<td>1.54627</td>
<td>-.270</td>
</tr>
</tbody>
</table>

Valid N (listwise) 302
Appendix E
Correlations
<table>
<thead>
<tr>
<th>Market Orientation</th>
<th>Correlation Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
</tr>
<tr>
<td>86</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td></td>
</tr>
<tr>
<td>89</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td></td>
</tr>
<tr>
<td>93</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
### Innovation Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>2</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

---

### Learning Orientation Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>2</th>
<th>4</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

---

193
### Perceived Organizational Performance Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Perceived External Market Environment Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
References


AEI & IDP Education Australia. (2002). Comparative costs of higher education courses for international students in Australia, New Zealand, the United Kingdom, Canada and the United States. Canberra: Australian Education International.


Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a
monte-carlo simulation study and an electronic-mail emotion/adoption study.  
*Information Systems Research, 14*(2), 189-217.


