The Relationship between the Degree of Offshoring and Financial Performance in Australia:

Effects of strategy, governance modes, absorptive capacity, and antecedents of offshoring

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

Hassan M. Kharroubi

Faculty of Business and Economics

Macquarie University

Sydney

2014

Supervised by

Dr David Gray

Professor Stephen Chen

Macquarie University

Department of Marketing and Management

Faculty of Business and Economics

Thesis submitted: March 2014

DECLARATION

This thesis is submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy, at the Department of Marketing and Management, Macquarie University. Ethics Committee approval has been obtained and the final approval number is 5201000052(D).

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at Macquarie University or any other educational institution, except where due acknowledgment is made in the thesis. Any contribution made to the research by others, with whom I have worked at Macquarie University or elsewhere, is explicitly acknowledged in the thesis. I also declare that the intellectual content of this thesis is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

Hassan M. Kharroubi

ACKNOWLEDGEMENTS

The completion of this thesis was the culmination of a long-standing personal passion and a thought process which started in earnest in junior year 5, when I was a primary student who completed a significant research project known as the junior paper. In the junior paper, I looked at the research question: How does sport bring people together? The study used a sample of twenty-five soccer teams in order to test the manner and degree to which the sport united players of different ethnic, religious, social, and cultural backgrounds towards one aim - winning. Although that junior paper was basic, it fostered the development of my research, laying the ground for the current study.

DEDICATION

To my Father and Mother

Without your motivations and blessings, I would have never been able to finish my thesis as planned.

 I love you with all my heart.

ABOUT THE PhD CANDIDATE

Hassan M Kharroubi (1977) received his BAcc (1st Class Hons) degree and MBA in professional accounting from the University of Technology Sydney (UTS). Hassan has also received the 2007 Global Chartered Accounting Award and Accounting Award for Proficiency and creativity in accounting research. Hassan is a fellow member of the Institute of Public Accountants (IPA), CPA Australia, the Tax Institute and a global chartered tax advisor (CTAX). After many busy years in accounting and tax practice, Hassan did not lose his passion to learn more about international business strategy. He is currently doing his PhD at the department of Marketing and Management, Faculty of Business and Economics at Macquarie University. His research interests include international business strategy, organisation strategy, financial performance, export and offshoring.

Hassan's work has been published in the *Future Business Review* and the *In the Black* column in *The Sydney Morning Herald*. He is preparing submissions to international journals. Moreover, his work has been presented at the Australian and New Zealand Academy of Management (Canberra, 2005 and Melbourne, 2009) and Strategic Management Society (Rome, 2010) and British Academy of Management (Liverpool, 2013).

Hassan has also taught several Bachelor courses on strategy and entrepreneurship. Over the last few years, Hassan has been heavily involved in setting up research collaborations and conducting the Offshoring Research Network (ORN) survey in Australia with Professor Stephen Chen.

ABSTRACT

Organisations have vigorously pursued opportunities for profitability and growth through offshoring. Yet, research evidence on the performance benefits of offshoring activities has been contradictory. Moreover, the contradiction in outcomes can be traced to the complex nature of the offshoring process and the many aspects that may influence the relationship between offshoring and performance.

This research develops and tests a comprehensive framework to explain the relationship between offshoring and performance improvement. Specifically, it addresses how the nature of tasks, antecedents of offshoring (i.e. characteristics of organisations which offshore), offshoring strategy (i.e. what drives organisations to offshore), offshoring governance modes (i.e. how to govern the offshoring process) and organisational absorptive capacity (i.e. how organisations' can capitalise on new knowledge) affect the outcomes of offshoring.

Using partial least squared structural equation modelling (PLS-SEM) analysis, the empirical findings of 77 Australian small-to-medium organisations (SMOs) confirm that:

(1) Implementing offshoring as a viable efficiency-enhancing and/or growth strategy has a significant direct positive effect on performance improvement;

(2) However, the implementation of offshoring as a cost-reduction strategy has a negative effect on the relationship between the degree of offshoring high-value added tasks and long-term performance improvement;

(3) Using a captive governance mode is more effective in offshoring high value-added tasks, while third party offshoring is more effective in offshoring standardized tasks;

(4) An organisation's absorptive capacity or the same organisation's ability to capitalise on knowledge gained has a positive influence on the relationship between the degree of offshoring in high-value-added tasks and performance improvement.

These results suggest that managers and policy makers need to rethink the level of their offshoring engagement, strategic choices, knowledge absorptive capacity and governance modes in order to successfully implement offshoring.

Keywords: offshoring, performance, the degree of offshoring, high value-added tasks, standardized tasks, offshoring strategy, absorptive capacity, offshoring governance modes, PLS-based SEM

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

1   INTRODUCTION

1.1 Background to the Research

The term *offshoring* is at the centre of the latest phase of globalisation. As with previous phases of globalisation, this latest manifestation has generated widespread and sometimes heated debate. Offshoring is not an issue or process unique to Australia. It is increasingly used by both manufacturing and service industries across the world to remain competitive. However, the economic rationale for offshoring appears even stronger for Australia than the US, as Australia has lower tariffs and the Australian dollar is relatively high compared to past trends.

Grant (2005) reports that offshoring by Australian organisations commenced in 1989 with the ANZ Bank's decision to open a software development and maintenance facility in Bangalore, and that momentum has grown significantly in the past two to three years. Australian organisations involved in the industry sectors of information and communications technologies (ICT), banking and insurance appear to be the most actively engaged in offshore outsourcing to Indian service providers. Telstra is one of the Australia's most active offshoring organisations, having announced many major offshoring decisions in the recent years. Offshoring engagements by other Australian organisations, such as Hutchison Telecommunications, Optus, Qantas, Axa, DC, NAB, Westpac and Hewlett Packard, Energy Watch, Citigroup, Virgin Australia, Diners Club International, Mindpearl, Macquarie Bank, Jetstar, Coles Myer / GE Consumer Finance, St George, Suncorp, IBM, and AGL have accelerated in the past eight years.

Penter, and Pervan, (2009), exploring two Australian small to medium-sized organisations offshoring to India, reported, "Australian economy currently faces labour and skill shortages and an aging work force, a legacy of ineffective education and training practices plus a strong Economy" (p.549). Due to these facts, they concluded that Australian firms have an urgent need for "a global sourcing strategy in order to continue to grow and create value for shareholders" (Penter and Pervan, 2009, p.549).

The National Institute of Economic and Industry Research (NIEIR) (2008) has estimated that more than 18,000 Australian finance and administration jobs have been offshored in the last five years and that about 850,000 Australian jobs are candidates for offshoring by 2018.

According to a recent *Sydney Morning Herald* article, the NIEIR estimated that 80,000 Australian jobs had been offshored during the last four years. The article suggested that "the trend could send 700,000 to 1 million jobs overseas in the next three decades, not just to cheaper countries like India and the Philippines, but to advanced economies like the US, Britain and the Netherlands, which are investing in specialised skills" (SMH, 2012).

The occupations offshored include: payroll, human resources, administration, document processing, data entry, call centre jobs, information technology (IT) and sales. The offshoring decisions have mainly been explained in terms of organisations trying to cut costs (Grant, 2005). Average wage levels are higher in Australia than in the offshoring destinations. For example, a credit risk officer in the Philippines is paid the equivalent of about AUD$ 6,000 per year, while a similar job in Australia is paid about $60,000 per year. This cost differential provides a powerful rationale for offshore work from Australia. Further, as a result of developments in information technology (IT), it is possible for organisations to outsource work offshore, without incurring extra costs in terms of transactions and communications.

To date, there has been limited academic research published about the offshoring phenomenon in the Australian context. The offshoring activities of Australian organisations appear "under-represented compared to North American and European organisations" (Penter and Pervan, 2009, p.559). A considerable number of the published Australian articles to date are descriptive in nature and written by practitioners. They tend to focus on the hot debate about the negative effect of offshoring on Australian jobs, and on performance improvement. These articles do not examine the broader economic effects of offshoring on Australia (Business Council of Australia, 2004). They provide little insight into how offshoring can improve performance. Furthermore, most of these articles are rooted in lessons learnt from trial and error, using small case studies rather than robust empirical inquiry (Hughes, 2007; Borman, 2006).

This thesis addresses these gaps in the Australian offshoring literature and develops a comprehensive database reflecting the offshoring status of different organisations and the real effect of offshoring on performance improvement. This has been achieved through collaboration with the ORN (Offshoring Research Network). The ORN is an international network of researchers and practitioners studying organisations in their transition to globalising their business functions, processes and administrative services. The ORN project

was launched in 2004 by the Centre for International Business Education and Research (CIBER) at Duke University, The Fuqua School of Business. The ORN currently involves twelve research partner universities and more than 3,000 corporate participants from all over the world. For more info, please refer to:

http://en.wikipedia.org/wiki/Offshoring_Research_Network

The ORN conducts annual surveys tracking global sourcing strategies, drivers, implementations and plans across all business functions and processes. This survey was conducted as a part of the ORN surveying of the offshoring practices of Australian-based organisations. The ORN survey structure was followed in this thesis because of its credibility and uniqueness. This survey has been well tested in many countries over many years.

As small businesses are the backbone of the Australian economy, small and medium enterprises (SMEs) were surveyed in the first stage. The survey focused on collecting data about offshoring practices of Australian SMEs in seven main areas: functions offshored, offshoring destinations, offshoring governance models used (captive, third party and hybrid), strategic drivers of offshoring, perceived risks and benefits, performance improvement and future offshoring plans. The participated organisations represent small-to-medium sized organisations with 0-200 full-time equivalent employees. These organisations belong to a wide range of industries and businesses, including banking and finance, infrastructure, manufacturing, engineering and software development, retailers and wholesalers and professional services. The survey collected information about offshored functions such as call centres, banking, finance, insurance, accounting, human resources, marketing, legal services, procurement, administration, research and development, product design and engineering services and software development.

1.2 Purpose of the thesis

The overall purpose of this thesis is to use primary data on Australian small-to-medium enterprises (SMEs) to develop a conceptual framework combining existing organisational, international business (IB) and management theories to test the relationship between offshoring and performance improvement.

This PhD thesis aims to enhance the existing literature on global sourcing in general, and offshoring in particular, by addressing several gaps in the existing literature (Table 1.1). Further, this thesis will make practical contributions to the following:

- First, this thesis focuses specifically on the offshoring activities of small to medium-sized Australian organisations. Although the phenomenon of organisations' internationalization has captured the interest of many scholars, little effort has been made to understand the effects of internationalization on SMEs' performance (Lu and Beamish, 2001)

- Second, it is important to emphasise that previous research studies in offshoring and outsourcing literature have not provided information about the quantitative scope of offshoring and outsourcing. They have merely provided a yes/no measure of whether or not offshoring or outsourcing has occurred in the individual organisation. An organisation heavily involved in the offshoring of jobs and functions to different suppliers and destinations, therefore, receives the same weight as an organisation that has offshored to a much lesser degree. Past outsourcing and offshoring studies in different contexts have stressed the importance of considering the *intensity or degree of outsourcing or offshoring* implementation to assess the true effect. For example, Rai and Patnayakuni (1996) advocated that there might be different degrees of outsourcing adoption rather than just conceptualising adoption as a dichotomous yes/no variable. Srivastava et al. (2008), in their study on the business-related determinants of offshoring, highlighted the importance of considering the intensity of offshoring from the client organisation. Rothaermel et al. (2006) found that an organisation's degree of strategic outsourcing positively affects financial performance. Following a similar logic, in our study we explicitly consider the effect of the degree of offshoring on performance improvement.

■ Third, while many previous research studies have narrowly focused on strategic drivers of offshoring, this study follows Jensen and Pedersen's (2012) theoretical argument that offshoring must be analysed at a disaggregated level rather than a function level. This thesis thus argues for a broader approach in order to capture other under-researched antecedents related to the decision to offshore high value-added and standardized tasks. Hence, in addition to offshoring's strategic drivers, other antecedents, such as firm characteristics and the nature of the specific task, are examined.

■ Fourth, examining financial performance improvement from offshore activities is very important. However, the importance of offshoring to financial performance has been identified in literature. The relative scarcity of the research (Mankiw & Swagel, 2006) and the mixed financial outcomes from the relationship between offshoring and financial performance (Aron and Singh, 2005, Thakur, 2010) have prompted calls for further investigation (Gilley & Rasheed, 2000; Mol et al. 2004; Quélin & Duhamel, 2003). A fundamental problem in addressing offshoring performance is that the question of how success or performances should be measured has not been examined thoroughly (Hutzschenreuter, Lewin & Dresel, 2011; Harland et al. 2005). In order to gain more objective and accurate results, more attention should be paid to long-term performance measures of offshoring (Novak & Stern, 2008). Attention should also be paid to multi-dimensional market performance measures in order to minimise the possible weaknesses associated with the use of a single performance measure (Kotabe 1992; Murray, Kotabe & Wildt 1995). The aforementioned is the most valid means of measuring performance, although such an approach can be time consuming and cumbersome (Atkinson, 2006). Thus, a long-term multi-dimensional measure of offshoring performance is adopted in this thesis, allowing the researcher to get an idea of the evolution of the indicators.

■ Fifth, this thesis extends Roza, Bosch and Volberda's (2011) research findings by investigating the effect of different offshoring strategies/drivers identified in their research (i.e. cost, resource and entrepreneurial strategy) on offshoring performance improvement. Gilley and Rasheed's (2000) examinations of the direct effect of outsourcing on financial performance concluded that there is no significant direct

relationship between outsourcing and performance. However, their examination revealed that there is a moderating effect of outsourcing strategy on the relationship between outsourcing and performance. Hence, performance improvement is an outcome of different internal and external strategic factors and it is almost impossible to capture statistically by means of a single strategy.

■ Sixth, prior research on offshoring has rarely used a multi-theoretical perspective, selecting instead the transaction cost economics perspective, to address offshoring strategy as a cost saving strategy (Farrell, 2005) or a means to gain access to labour resources (Kenney et al. 2009; Lewin et al. 2009; Manning et al. 2008). Therefore, this thesis contributes to the literature on offshoring by making use of a multi-theoretical perspective incorporating (1) transaction cost economics theory (Coase,1937; Williamson, 1975, 1985); (2) resource-based view (Barney, 1991; Penrose, 1959; Vivek et al. 2008); (3) entrepreneurship theory (Baumol, 1993; Fiet, 2001; Phan, 2004); (4) corporate turnaround theory (e.g. Schendel et al. 1976; Schendel & Patton, 1976; Hofer & Schendel, 1978; Hofer, 1980); (5) knowledge theory of the firm (Grant, 1996). We will use this combination of perspectives to explain the different offshoring strategies as well as the different performance effects of these strategies. In this thesis, three different offshoring strategies are examined: cost-reduction, efficiency-enhancing and growth strategies.

■ Seventh, the decision to offshore through a wholly-owned subsidiary (captive offshoring) or through arm's length relationships with independent third party foreign suppliers (offshore outsourcing) has strategic implications for organisations (Kedia & Mukherjee, 2009; Mudambi, 2008). Although the performance effects of captive offshoring and third party offshore outsourcing have been described conceptually and empirically tested, robust empirical evidence is still debatable (Leiblein et al. 2002; Coucke & Sleuwaegen, 2008). Even if we accept that offshoring may improve performance results, the question of which offshoring governance mode is more effective for achieving these results still remains. Thus, this thesis divides offshoring governance modes into captive offshoring and offshore outsourcing (The United Nations Conference on Trade and Development- UNCTAD, 2004), distinguishing between full and shared ownership on the one hand, and an absence of ownership models on the other hand. The moderating effect of offshoring governance modes on

the relationship between the degree of offshoring and performance improvement is also investigated. Furthermore, offshoring functions are divided into standardized tasks and high value-added tasks, helping us to explore and empirically test which governance mode should be used in order to offshore these two different types of tasks.

- Eighth, the importance of the absorptive capacity of the organisation (Cohen & Levinthal, 1989, 1990) is introduced, highlighting the effect of knowledge integration within the organisation as a means of facilitating performance improvement in offshoring.
- Finally, although the time-frame of offshoring's implementation has a crucial effect on the offshoring organisation's success, (Lewin and Peeters 2006b), this effect is still under-researched (Hutzschenreuter et al., 2011). Therefore, in this thesis, we explore the time-frame effect by comparing performance effects one, three and five years after the offshoring announcement year.

In conclusion, to achieve the optimal outcomes within the estimated time-frame, in addition to other factors such as the offshoring destination characteristics (Haiyang and Hu 2002; Jiatao and Guisinger 1991; Pangarkar and Lim 2003), offshoring organisations need to consider the following fundamental factors in order to achieve offshoring success: (1) the offshoring strategic drivers (Roza, van den Bosch and Volberda,2011), (3) the offshoring governance mode to be used (Jiatao 1995; Simmonds 1990; Woodcock et al. 1994) and (4) the organisations' capacity to absorb knowledge (i.e. absorptive capacity) from external environment and integrate it to their offshoring implementations (Audretsch and Feldman 1996; Audretsch and Stephan 1999; Capello and Faggian 2005, Huber 1991; Levitt and March 1988 and Hutzschenreuter et al., 2011).

This section has clearly demonstrated that there are important gaps in the literature on offshoring still to be researched.

The aim of this thesis is to advance our understanding of the offshoring process by dividing it into three parts: (1) offshoring strategy (i.e. what drives organisations to offshore and which strategic choices should be adopted); (2) offshoring governance modes (i.e. how to govern the offshoring process); and (3) offshoring absorptive capacity (i.e. how to capitalise on offshoring knowledge).

Table 1-1: Research aims of study I-III

Research Aims	Existing Literature
1. Development of Australian view of offshoring Development of conceptual and empirical foundations of the literature	Much of the research is descriptive in nature and derived from practitioners
2. Investigation of quantitative scope of offshoring Organisations heavily involved in offshoring receive a higher weight than an organisation that has offshored to a much lesser degree. Hence, the magnitude effect or the degree of offshoring of the organisations has rarely been considered in previous offshoring research studies.	Offshoring and outsourcing studies merely provide a yes/no measure of whether or not offshoring or outsourcing has occurred in the individual organisation (Patnayakuni, 1996 and Srivastava et al. 2008).
3. Investigation of performance effects of offshoring Employing a long-term, multi-dimensional measure of offshoring performance. Examining financial performance pre-offshoring and post-offshoring. Examining the cost of goods sold as a percentage of sales as a measure of an organisation's efficiency level	i. Offshoring researchers have not paid much attention to the relationship between offshoring and performance improvement (Mankiw & Swagel, 2006). Offshoring organisations had mixed outcomes from offshoring (Aron & Singh, 2005). Furthermore, the existing offshoring research work has not reached any conclusion on the relationship between offshoring and performance (Leiblein, Reuer & Dalsace, 2002). ii. Short-term and single performance measures were used (Kotabe 1992; Murray, Kotabe & Wildt 1995). iii. Previous research mainly focused on measuring performance using sales revenue (Jensen and Pedersen, 2012). Cost of goods sold as a percentage of sales is a very important criterion as it signifies the effect of offshoring on efficiency (Prezas, 2010)

Table 1-1: Research aims of study I-III (continued)

Research Aims	Existing Literature

4. **Adopting a multi-theoretical perspectives**
 	
    i. (1) Transaction cost economics theory, (2) Resource-based view and (3) Entrepreneurship theory to explain different offshoring strategies as well as their performance effects.
 	
    ii. Transaction cost economic theory to explain different offshoring governance modes (offshore outsourcing, joint venture and captive) effect on performance.
 	
    iii. Knowledge-based view of the firm (e.g. Grant, 1996) and the organisational learning theory to explain absorptive capacity moderating effect on the relationship between the degree of offshoring and performance improvement
	For the most part transaction cost economics and resource-based view are used to explain offshoring strategies and studies mainly focusing on entry mode choice (e.g. Ellram et al. 2008).

5. **Investigation of Multi-Strategy Effect**
 	
    i. The effect of different offshoring strategies (Cost reduction, efficiency-enhancing and growth strategies) on performance improvement as well on the relationship between the degree of offshoring and performance improvement has been investigated.
    ii. The effect of the nature of the tasks offshored has been considered and examined (i.e. value-added tasks versus standardized tasks)
    iii. The time effect of the offshoring's implementation has been explored.
	Strategies have been examined in isolation with the focus mainly on cost savings (Farrell, 2005) or labour resources (Lewin et al. 2009; Manning et al. 2008).

6. **Investigation of the effect of Offshoring Governance Modes**
    i. The effect of different offshoring governance mode on performance improvement and on the relationship between the degree of offshoring and performance has been examined.
    ii. The effect of the nature of the tasks offshored has been considered and examined (i.e. value-added tasks versus standardized tasks)
    iii. The time effect of the offshoring implementation has been explored.
	Although the performance effects of captive offshoring and offshore outsourcing have been described conceptually and empirically tested, robust empirical evidence is still arguable (Leiblein et al. 2002; Coucke & Sleuwaegen, 2008).

7. **Investigation of the effect of Absorptive capacity**
    i. The effect of absorptive capacity on performance improvement and on the relationship between the degree of offshoring and performance has been examined.
    ii. The effect of the nature of the tasks offshored has been considered and examined (i.e. value-added tasks versus standardized tasks)
    iii. The time effect of the offshoring implementation has been explored.
	In the context of offshoring and from learning perspective, the effect of organisation's absorptive capacity on financial performance is under researched (Cohen & Levinthal, 1990; Novak & Stern, 2008; Youngdahl & Ramaswamy, 2008).

8. **Investigation of effect of organisational characteristics as control variables** Controlling for the effect of offshoring organisational characteristics (i.e. organisation size , international experience, organisation age and industry)	Most of the offshoring research focuses only on large organisations. Organisation size has rarely been researched in the context of offshoring (Roza, van den Bosch and Volberda, 2011).

1.3 Thesis overview

This Thesis consists of five chapters (see Figure 1.1).

Chapter 1 gives an overview of the research; discusses the purpose of the research, the basic concepts used, the research motivation, scope, major theories necessary to the study, the research methodology used to test the research hypotheses and the contributions of this research.

Chapter Two to Chapter Four focus on three research questions. Each of the three studies is set up as a stand-alone paper. Each individual chapter comprises introduction, theory and research model, methodology and empirical data relevant to the specific study, analysis of the data and discussion, and finally, conclusions and implications.

Chapter 2 – Study I (what drives organisations to offshore); addresses the influence of different strategic motives for offshoring such as *cost-reduction*, *efficiency-enhancing* and *growth* strategies on performance. Thus, chapter two examines the effect of different offshoring strategies on the relationship between the degree of offshoring and performance improvement. The first half of the chapter is dedicated to identifying the relevant research issues, variables and research gap and then derives some propositions based on the literature, while the second half of the chapter is dedicated to analysing and discussing the findings, conclusions and recommendations of the research. A previous version of Chapter 2/Study I by Hassan Kharroubi and Prof. Stephen Chen was presented at the Strategic Management Society Conference 2010. Data collection and analysis was carried out solely by Hassan Kharroubi; theory development and writing of the paper was carried out jointly with Prof. Chen. The revised version presented here has been reviewed by Prof. Stephen Chen and Dr. David Gray.

Chapter 3 – Study II (how to govern the offshoring process); distinguishes between different offshoring governance modes such as *captive* (full and shared ownership) on the one hand and *third party/ non-captive* (no ownership) models. Chapter 3 examines the effect of offshoring governance modes on the relationship between the degree of offshoring and performance. The first half of the chapter identifies the relevant research issues, variables and the research gap and then derives some propositions based on the

literature, while the second half of the chapter analyses and discusses the findings, conclusions and recommendations of the research. Chapter 3/Study II was wholly and completely written by Hassan Kharroubi and it was reviewed by Prof. Stephen Chen and Dr. David Gray.

Chapter 4 – Study III (how organisations can capitalise on offshore knowledge); Chapter 4 examines the effect of absorptive capacity on the relationship between the degree of offshoring and performance. The first half of the chapter discusses the evolution of absorptive capacity as a concept, its relevance to the offshoring phenomenon, research issues, variables and the research gap; it then derives some propositions based on the literature. The second half of the chapter analyses and discusses the findings, conclusions and recommendations of the research. A previous version of Chapter 4/Study III by Hassan Kharroubi and Prof. Stephen Chen was presented at the British Academy of Management Conference Liverpool 2013. Chapter 4/Study III was written by Hassan Kharroubi and reviewed by Prof. Stephen Chen and Dr. David Gray. This chapter also shows how offshoring leads into an innovative culture that facilitates the acquisition of knowledge leading to capability development and performance effects.

Chapter 5 – Conclusions: This chapter integrates and discusses findings from the three studies, offering research implications and managerial implications, limitations and future directions of this research. This thesis uses international business (IB) and strategic management studies to support arguments; only in the absence of IB and strategic management studies, are the arguments supported with studies from other disciplines. An overview of the studies used in this thesis is shown in Table 1.2.

Table 1-2: Overview of Studies I-III

Thesis structure	Study I	Study II	Study III
Data source	Primary data of 77 Australians organisations	Primary data of 77 Australian organisations	Primary data of 77 Australian organisations
Year (s)	2007-2011	2007-2011	2007-2011
Research Gap	1) Offshoring studies report on large organisations (e.g. Gilley & Rasheed, 2000; Lewin & Peeters, 2006b).	(1) Offshoring studies report on large organisations (e.g. Gilley & Rasheed, 2000; Lewin & Peeters, 2006b).	1) Offshoring studies report on large organisations (e.g. Gilley & Rasheed, 2000; Lewin & Peeters, 2006b).
	(2) More attention should be paid to long-term performance measures of offshoring in order to gain more accurate results (Novak & Stern, 2008).	(2) More attention should be paid to long-term performance measures of offshoring in order to gain more accurate results (Novak & Stern, 2008).	(2) More attention should be paid to long-term performance measures of offshoring in order to gain more accurate results (Novak & Stern, 2008).
	(3) Research did not attempt to investigate whether the differential performance among offshoring organisations is influenced by implementing different offshoring strategies such as cost-reduction, efficiency-enhancing strategy and growth strategy. In addition, previous research rarely considered the nature of tasks and offshoring implementations time frame effects on offshoring success.	(3) Although the performance effects of captive offshoring and offshore outsourcing have been described conceptually and empirically tested, robust empirical evidence is still arguable (Leiblein et al. 2002; Coucke & Sleuwaegen, 2008; Roza, 2011). In addition, no attention has been given to the nature of tasks or the period of the offshoring implementation.	(3) Absorptive capacity is important for executing offshoring strategies (Lewin & Peeters, 2006b). Moreover, dynamic capabilities in general, provide organisations with the potential for growth (Helfat, 2007) In the context of offshoring and from knowledge-based view and learning perspectives, the moderating effect of absorptive capacity on performance improvement is under researched (Roza, 2011). Although task-level analysis (Jensen and Pedersen, 2012) and time effect (Lewin and Peeters 2006b) are very critical to offshoring organisation success, their impact is still under-researched (Hutzschenreuter et al., 2011).
Research Question (s)	(1) Is the performance of an offshoring organisation associated with its degree of offshoring?	To what extent do offshoring governance modes moderate the relationship between the degree of offshoring and performance improvement?	(1) Is the performance of an offshoring organisation associated with its degree of offshoring?
	(2) Does different offshoring strategies directly affect performance improvement?		(2) To what extent does absorptive capacity moderates the relationship between the degree of offshoring and performance?
	(3) How does different offshoring strategies influence (moderate) the degree of offshoring- performance relationship?		
Unit of analysis	Task-level	Task-level	Task-level
Independent variable (s)	The degree of offshoring (value-added tasks versus standardized tasks)	The degree of offshoring (value-added tasks versus standardized tasks)	The degree of offshoring (value-added tasks versus standardized tasks)
Dependent variable (s)	Financial Performance Change: Post-offshoring – Pre-offshoring **(Year 5-Year-1) (Year 1-Year-1) (Year 3-Year-1)**	Financial Performance Change: Post-offshoring – Pre-offshoring **(Year 5-Year-1) (Year 1-Year-1) (Year 3-Year-1)**	Financial Performance Change: Post-offshoring – Pre-offshoring **(Year 5-Year-1) (Year 1-Year-1) (Year 3-Year-1)**
Moderating variable (s)	Offshoring strategy (i.e. cost-reduction, efficiency-enhancing and growth strategy)	Offshoring governance modes (i.e. captive versus third part offshoring governance mode)	Absorptive capacity
Organisation Size	Small-to-medium sized organisations (0-200) employees	Small-to-medium sized organisations (0-200) employees	Small-to-medium sized organisations (0-200) employees
Country (ies)	Australia	Australia	Australia
Statistical method	Partial least squares (PLS)	Partial least squares (PLS)	Partial least squares (PLS)

Figure 1-1: Thesis outline

Chapter 1

Introduction

Chapter 2: Study I
The degree of offshoring and organisational performance.

Impact of offshoring strategies

What drives organisations to offshore?

Chapter 3: Study II
The degree of offshoring and organisational performance.

Impact of offshoring governance modes
How organisations govern the offshoring process?

Chapter 4: Study III
The degree of offshoring and organisational performance.

Impact of absorptive capacity

How organisations can capitalise on new knowledge?

Chapter 5

Discussion, conclusions and Implications

1.4 Theoretical framework

A conceptual framework or theoretical model is developed in order to help structure the research and to identify the variables for measurement. The conceptual framework (Figure 1.2) shows how the degree of offshoring affects performance improvement. Furthermore, it also shows that the relationship between the degree of offshoring and performance improvement is influenced by the variety of offshoring strategies, absorptive capacity, and different offshoring governance modes. In addition, as depicted in the conceptual framework (Figure 1.2), a proper utilisation of well-chosen strategies (i.e. cost – reduction, efficiency-enhancing and growth strategies), offshoring governance modes (i.e. captive and third party) and absorptive capacity is more likely to have a direct effect on the organisation's long-term performance improvement.

In particular, the conceptual framework is developed to integrate the three developed research models for study I, study II and study III. The study I research model draws the direct relationship between the degree of offshoring and performance, as well as the direct and moderation influence of offshoring strategies. The study II research model draws the direct relationship between the degree of offshoring and performance and the moderation influence of absorptive capacity. The study III research model draws the direct relationship between the degree of offshoring at a task-level (high value-added versus standardized tasks) and performance as well as the direct and moderation influence of the offshoring governance modes.

Figure 1-2: Conceptual framework for studies I-III

Relationship between the degree of offshoring and financial performance improvement

Study I : Offshoring strategies

(a) Cost-reduction
(b) Efficiency-enhancing
(c) Growth

Study II: Offshoring governance mode

(a) Captive (Full and shared control)
(b) Non-Captive (Third party)

Study III: Offshoring and absorptive capacity

(a) Knowledge recognition
(b) Knowledge integration
(c) Knowledge implementation

The Degree of offshoring
High value-added tasks VS. Standardised tasks

(a) No. of Jobs
(b) No. of Tasks
(c) No. of Offshoring Implementations

Firm performance
Difference between post-offshoring and pre- offshoring

(a)   Net operating profit
(b) % Cost of goods sold / Sales
(c) % Shareholder's value growth

Direct impact

Moderation impact

Control
(a) International experience
(b) Organisation age
(c) Organisation size
(d) Industry

1.5 Research questions

A comprehensive review of the relevant literature helped in the identification of the research gaps. These gaps formed our main research problems. They also helped us to ultimately identify more specific research questions to explain the differing performance among offshoring organisations. The main research problem addressed in this study is:

Is the performance of an offshoring organisation associated with its degree of offshoring?

The specific research questions investigated are:

Study I:

1. Is the performance of an offshoring organisation associated with its degree of offshoring?

2. What drives organisations to offshore? In addition, how do different offshoring strategies influence performance improvement and/or moderate the relationship between the degree of offshoring and performance improvement?

Study II:

1. Is the performance of an offshoring organisation associated with its degree of offshoring?

2. How do organisations govern the offshoring process? In addition, how does the offshoring governance mode influence performance improvement and/or moderate the relationship between the degree of offshoring and performance improvement?

Study III:

1. Is the performance of an offshoring organisation associated with its degree of offshoring?

2. How can organisations capitalise on new knowledge? In addition, to what extent does organisational absorptive capacity moderate the relationship between the degree of offshoring and performance improvement?

The nature of tasks and time frame effects have also been considered throughout the three studies. The outcomes of these research questions in Study I, II and III are derived from a sample of 77 small to medium-sized Australian-based organisations (0-200 employees) across a variety of industries ranging from manufacturing and industrial, wholesale and retail trade, banking, finance and insurance to real estate and information and professional services.

1.6 Methodology

1.6.1 Sample and data collection

This thesis examines the relationship between the degree of offshoring and performance improvement, and the effect of the moderator variables based on a primary source of data collected through conducting an online survey followed by a phone interview. This survey was conducted as a part of the *ORN (Offshoring Research Network)* survey of the offshoring practices of Australian-based organisations. However, for this study, further country-specific research questions were added.

The preliminary questionnaire was cross-checked by three business professors with experience in offshoring research. Pilot tests were performed for instrument validity, with the assistance of 25 offshoring chief executive officers (CEOs) whose constructive feedback helped us to reframe ambiguous or inaccurate questions.

The participating organisations represent small-to-medium sized organisations with 0-200 full-time equivalent employees. These organisations belong to a wide range of industries, such as banking & finance, infrastructure, manufacturing, engineering and software development, retailers and wholesalers and professional services. The survey collected information about offshored functions such as call centres; banking, finance; insurance; accounting; human resources; marketing, legal services; procurement; administration; research and development; product design and engineering services and software development (see Table 1.3).

Five steps were followed for sample selection and data collection. The first step consisted of the selection of a random sample of 5,000 Australian organisations in the manufacturing and service sectors provided by Dun and Bradstreet (D&B is a global commercial database containing more than 205 million business records). In the second step, the identified 5,000 Australian organisations were then reduced into a sub-sample of 1,000 organisations representing only small to medium-sized organisations across the manufacturing and service industries,. The third step consisted of conducting two rounds of data collection between February to March 2010 and September 2010 to March 2011 via an online survey hosted by the commercially available software package Survey Monkey. Online survey has been commonly used due to its many advantages: the time needed to complete and process an online-survey is shorter than that required for the traditional paper questionnaire; the response rate is almost instant; the data collected is more accurate as the information is directly entered by participants; participants can be reached regardless of their location; online survey is more cost-effective; the data collected can be easily transferred into the chosen analysis software. In addition, online survey can allow you to pre-screen participants and match them with the pre-set target profile and you can target specific research questions. Some of the disadvantages of online survey that researchers should be aware of are access issues, uncertainty over the validity of the data and sampling, and concerns about the design, implementation, and evaluation of an online survey. The last two issues can be resolved by using a reliable online survey package.

In our research project we have used both quantitative and qualitative methods. This form of research strategy is usually described as convergent validation or "triangulation" (Webb et al., 1966). Triangulation is broadly defined by Denzin (1978, p.291) as "the combination of methodologies in the study of the same phenomenon". This notion refers to the concept that quantitative and qualitative methods should be viewed as complementary methods. This method was used to improve the level of reliability of the outcomes and to expand the scope or breadth of research to offset the weaknesses of either approach alone (Rossman and Wilson 1991). As a fourth step, in addition to the collection of data through a survey instrument, interviews were conducted. The focuses of the interviews was on checking the reliability of the information collected through the questionnaires and filling in any missing information. All the interviews were conducted, recorded and transcribed by the researcher. The interview data was integrated with the survey data using the Sequential mixed method.

The Sequential mixed data collection strategy involves collecting data in an iterative process whereby the data collected in the survey phase contribute to the data collected in the next interview phase. Sequential designs in which quantitative data are collected first can use statistical methods to determine which findings to augment in the next phase (Creswell & Plano Clark 2007:121).

The collection and analysis of structured survey and open-ended key informant interviews in an iterative analytic process provided important information on emergent and unexpected themes. For example, a statistical analysis of the combined survey and quantified interview responses in our sequential design revealed a significant, and hence unrealized, association between the quantitative scope of offshoring (degree of offshoring) and performance. Qualitative data collected using the sequential mixed method can be quantified to create a single comprehensive dataset by several strategies. The strategy used in this research counts the number of times a qualitative code occurs. The qualitative data analysis software programs used to generate these reports is NVivo)".

Finally, to broaden the analysis limit, secondary accounting and financial information were obtained from Dun and Bradstreet. Moreover, this combination of primary data (survey data) and secondary data (official organisation financial information) reduces the problems posed by common method bias less of an issue (Jensen and Pedersen 2012).

At the end of the process, 201 completed surveys were retained for statistical analysis, leading to a response rate of 20%. Of these organisations, 77 are currently offshoring and the rest are considering offshoring or have decided not to offshore. The analysis outcomes presented throughout the thesis are related to the 77 currently offshoring organisations. Figure 1.3 shows the breakdown by industry sectors. The three most represented industries are banking, financial services and insurance (29%), infrastructure (23%) and professional services (16%). Table 1.3 shows the distribution of offshoring organisations by number of employees. The sample is heavily biased towards small to medium-sized organisations between (50-200) employees. Table 1.4 shows offshoring tasks (high value-added versus standardized) across offshoring destinations. The three main offshoring destinations for high value-added tasks are India (24%), Philippines (15%) and Singapore (14%).The three main offshoring destinations for standardized tasks are India (39%), Philippines (26%) and China (11%).

Figure 1-3: Sample breakdown by industry sectors

Sample Breakdown by Industry Sectors
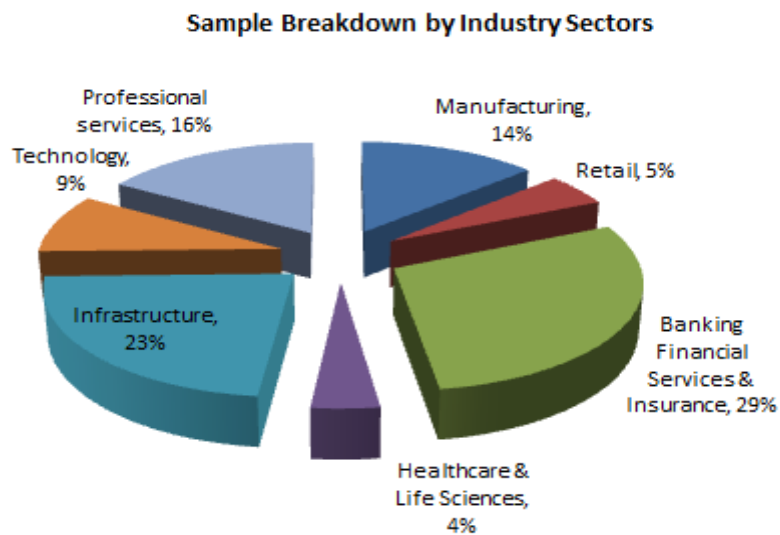
Table 1-3: Distribution of offshoring organisations by number of employees

Industry	20-50 FTE	51-100 FTE	101-200 FTE	%	Total
Banking, Financial Services and Insurance	0	6	16	29%	22
Healthcare and life Sciences	0	1	2	4%	3
Infrastructure	3	7	8	23%	18
Manufacturing	2	5	4	14%	11
Professional Services	4	6	2	16%	12
Retail	1	3	0	5%	4
Technology	2	3	2	9%	7
Total	12	31	34	100%	77

Note: FTE: Full-time equivalent employees working for the respective organisation domestically

Table 1-4: Offshoring tasks across offshoring destinations

		China	India	Indonesia	Japan	Malysisa	New Zealand	Philippines	Singapore	UK	USA	Total Tasks	% Offshored Tasks
	High value-added tasks												
	Legal Services						1		1			2	0.92
	Human Resources								1	1		2	0.92
	Marketing and Sales											0	0.00
	Finance/Accounting/Insurance		4	1			3	9	11	8		36	16.59
	Software Development	11	15		12	6	11	8	7	14	6	90	41.47
	Call centre / Customer Contact		23					7	15	9		54	24.88
	Research and Development	1	3		2					1	2	9	4.15
	Engineering Services	4	6	2	4	3			2	3		24	11.06
	Procurement											0	0.00
Total High value-added offshored Tasks		16	51	3	18	9	22	32	31	27	8	217	100.00
% Offshoring Tasks		7%	24%	1%	8%	4%	10%	15%	14%	12%	4%	100.0	
	Standardised tasks												
	Legal Services											0	0.00
	Human Resources						1	4				5	0.66
	Marketing and Sales	16	32	2		4	6	21	16	3	2	102	13.44
	Finance/Accounting/Insurance	11	13	5		8	2	16	9	2		66	8.70
	Software Development	4	6		2	2		1				15	1.98
	Call centre / Customer Contact	14	212	32		16	23	146	37			480	63.24
	Research and Development	3	4						1			8	1.05
	Engineering Services	17	3			2	1	2	1			26	3.43
	Procurement	18	26	1		2	3	4	3			57	7.51
Total Standardised offshored Tasks		83	296	40	2	34	36	194	67	5	2	759	100.00
% Offshoring Tasks		11%	39%	5%	0%	4%	5%	26%	9%	1%	0%	100.0	

1.6.2 Analysis techniques and justification

1.6.2.1 Structural equation modelling

According to the table presented above, offshoring, as a new and different phenomenon of internationalization, does not emphasize the accumulation of new foreign market knowledge (Johanson and Vahlne 1977). Rather, offshoring shows a "sudden relocation to locations in which the companies may not have prior knowledge" (Bals, et al., 2013, p.12).

Structural Equation Modelling was used as the basis for our analysis. SEM has several advantages over simple regression, which are well documented in the literature. SEM is generally considered one of the best methods for testing complex mediation and moderation relationships between variables and has been used in many organisational studies (e.g. Iconaru, 2013).

Structural Equation Modelling (SEM) allows a researcher to find answers to a set of questions at once by modelling the different relationships at the same time. These relationships can be modelled through several independent and dependent constructs in the same model (Bagozzi & Fornell, 1982; Gefen et al. 2000). SEM techniques can be covariance-based, like that used by LISREL, or variance-based like the one used in Partial Least Squares (PLS) analysis. The following section includes an explanation of the characteristics of covariance-based SEM and PLS.

Covariance-based SEM has a number of constraints that make it inappropriate for this research. It requires normality, and usually requires large sample sizes. In addition, this type of analysis usually requires reflective variables. Reflective variables are those in which the indicators are believed to be influenced by the latent variable. Formative variables, on the other hand, have indicators that are considered to cause the latent variable. This type of variable is best analysed in variance-based SEM. In covariance-based SEM, analyses tend to be confirmatory. This means that in order to conduct appropriate SEM analysis, one must have strong underlying theory and measures that have been thoroughly studied in the past (Chin & Newsted, 1999). Typically in covariance based SEM, the parameter estimates of one part of the model can be influenced by misspecifications on other parts of the model, because

it is a "full information approach"; this rarely occurs because it is a problem that can be countered by strong theory (Chin & Newsted, 1999, p. 311).

1.6.2.2 Partial least squares

PLS is a variance-based SEM analysis technique. The PLS algorithms have something in common with both linear regression and covariance-based SEM. The overall model consists of an inner model and an outer model. The inner model (structural model) consists of the relationships between the latent variables. The outer model consists of the relationships between the latent variables and their manifest variables. In other words, the outer model (measurement model) refers to how each set of indicators relates to the latent variable. The algorithm works by estimating first the outside model and then the inside model. Only one part of the model is involved at any one time, making the process similar to running several multiple regressions. PLS provides coefficients that can be read in a similar fashion as covariance-based SEM. PLS can use either a jack- knife or a bootstrap technique to generate t-values for the loadings. Partial Least Squares (PLS) is a component-based structural equation modelling technique that has particular advantages over covariance modelling (Slotegraaf & Dickinson 2004). PLS is a variance-based technique, which can assist with issues of formative versus reflective measures and moderating effects and can include categorical variables.

Indicators in PLS can be either reflective or formative. Formative variables are those that are not assumed to load strongly on a construct. In this type of variable, the paths connecting the construct and the indicators are directed towards the construct. Sample size requirements for PLS are also different from those for a covariance based SEM analysis. PLS appears to work well with smaller sample sizes and a more complex range of variables, which is useful in this research. This type of analysis can be conducted when assumptions of normal distribution and independence are not met by the data (Chin & Newsted, 1999 and Gefen et al. 2000). PLS is not constrained by identification issues, even in complex models (Hair, Sarstedt, Ringle & Mena 2012). Maximisation of variance explained (or R^2 values), in all dependent variables is the primary objective of PLS (Hulland, 1999). There is a wide application of PLS in many

areas of the international business, management and marketing literature (Hair, Sarstedt, Ringle & Mena 2012).

In conclusion, it was decided that the (PLS-SEM) technique is preferable to covariance (SEM) in this research for the following reasons:

- Sample size is small;
- We are testing moderation relationships between variables;
- Data does not meet the usual normality, independence and sample size requirements of other methods;
- The model being analysed is relatively complex, and includes a large number of indicators or latent variables;
- There is a need for formative indicators;
- This thesis is researching a relatively recent and changing model.

In this thesis the data were analysed using Partial Least Squares-SEM using the *WarpPLS 3.0* software (Kock, 2012). This technique is considered an all-purpose technique for statistical analysis, working well with outliers and small sample sizes (Chiquoine & Hjalmarsson, 2009; Osborne, 2008).

1.6.2.3 Moderation effect

Moderation occurs when the effect of an independent variable on a dependent variable differs according to the level of a third variable, termed a moderator variable, which interacts with the independent variable (Baron & Kenny, 1986; J. Cohen, 1978; James & Brett, 1984). Moderation is involved in research on individual differences or situational conditions that influence the strength of the relationship between a predictor and an outcome, such as studies showing that the effects of life events on illness depend on personality (Cohen & Edwards, 1989; Taylor & Aspinwall, 1996). In our study, we are interested in looking at how differences in offshoring strategies, absorptive capacity and governance mode (moderators) influence the strength of the relationship between the degree of offshoring (predictor) and performance improvement (outcome).

1.7 Key concepts and definitions

Researchers often use different terms to refer to the same phenomenon, or even use different definitions for a single term. Therefore, key concepts such as offshoring and outsourcing, variables definitions, and measurements such as the degree of offshoring, offshoring strategies, performance, absorptive capacity, offshoring governance modes, international experience, service type and industry, are discussed in this section to establish the positions taken in this PhD research.

1.7.1 Offshoring

The terms 'outsourcing' and 'offshoring' are often confused and used almost as synonyms. In international academic research, these two expressions represent different but related concepts. Offshoring represents geographic boundaries whereas outsourcing represents organisation boundaries (Massine, Bunyaratavej, Doh Hahn & Lewin, 2011).

Since many of the management principles involving offshoring are rooted in the outsourcing literature (Berry, 2006), it is necessary to make a clear distinction between the two concepts, which are still often used "interchangeably" (Bunyaratavej et al., 2011, p.71) in the literature .

1.7.1.1 The concept of offshoring

In the international business literature, offshoring is often examined as a new form of internationalisation by which organisations disaggregate tasks or business functions across national borders (Lewin, Massini & Peeters, 2009) for the purpose of serving domestic or global markets (Kenney, Massini & Murtha, 2009). The emergence of new locations and different offshoring governance modes has significantly changed offshoring (Levy, 2005; UNCTAD, 2005). Initially, during the 1990s, offshoring focused on relocating manufacturing activities to low-cost countries, but its scope and complexity have since increased greatly. Nowadays organisations offshore value-added activities that were traditionally kept in the home country, such as advanced technology design, medical diagnosis and treatment, legal

services, or R&D (Bardhan, 2006; Couto, Lewin, Mani, Manning, Russell & Sehgal, 2007; Fifarek & Veloso, 2010; Lewin & Couto, 2007; Stringfellow, Teagarden & Nie, 2008). The United Nations Conference on Trade and Development- UNCTAD (2004) - defined offshoring as the relocation of activities which can be realised either through offshore outsourcing (i.e. relocating business tasks to third parties), or captive offshoring (i.e. relocation while maintaining control). As recognised by Carmel and Tjia (2005), offshoring can be understood as the "shifting of tasks" (p.15) to any country outside the home country. Levy (2005) referred to offshoring as the "subcontracting of particular activities to foreign locations or suppliers" (p.692). Erber and Sayed-Ahmed (2005) defined offshoring as "the relocation of business processes (including production, distribution, and business services, as well as core activities like research and development) to lower-cost locations outside national borders " (p.100). Hirschheim et al. (2005) viewed IT offshoring as "the migration of all or part of the development, maintenance and delivery of IT services to a vendor located in a country different from that of the client" (p.1003). Twenty-five papers of the Management Information Systems (MIS) Quarterly journal defined offshoring as "inter-country outsourcing" or "a form of outsourcing performed outside the client organisation's home country" (King and Torkzadeh, 2008, p.207). Manning, Massini and Lewin (2008) defined offshoring, more specifically, as "the process of sourcing any business task, process, or function supporting domestic and global operations from abroad, in particular from lower cost emerging economies" (p.35). Mudambi and Venzin (2010) defined offshoring as an aspect of "the global disaggregation of the value chain as an attempt by organisations to combine the comparative advantages of geographic locations with their own resources and competencies to maximise their competitive advantage" (p.1511). Similarly, Lewin et al (2009) defined offshoring as a "new form of inter- nationalization by which firms disaggregate their value chains across multiple locations" (p.903).

Doh, Bunyaratavej & Hahn, (2009) argue that the offshoring of manufacturing is different from the offshoring of services. While the former has been an integral dimension of the globalisation of production for decades, the latter is a relatively recent phenomenon. Doh, Bunyaratavej & Hahn, (2009) define the offshoring of services as "the transnational relocation or dispersion of service related activities that had previously been performed in the home country" (p.926).

Table 1.5 summarises common definitions of offshoring from the literature. Although these definitions differ in some aspects, a considerable number of scholars essentially view offshoring as a domestic organisation sourcing products or services from another organisation located outside of the national borders. *This thesis defines offshoring as a new form of internationalisation by which organisations use different offshoring approaches to disaggregate tasks across national borders (Lewin, Massini & Peeters, 2009) for the purpose of serving domestic or global markets (Kenney, Massini & Murtha, 2009).This includes offshoring tasks within and outside the organisation's boundaries (captive versus offshore outsourcing).*

Table 1-5: Definitions of offshoring
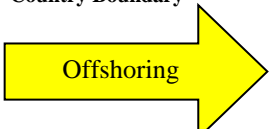
Authors (year)	Definition of Offshoring
The United Nations Conference on Trade and Development- UNCTAD (2004)	"Relocation of activities, which can be realised through offshore outsourcing, i.e. relocating business, tasks to third parties, or captive offshoring, i.e. relocation while maintaining control".
Carmel & Tjia (2005)	"Shifting of tasks" to any country outside the home country (p.15).
Levy (2005)	"Subcontracting of particular activities to foreign locations or suppliers" (p.692).
Erber & Sayed-Ahmed (2005)	"The relocation of business processes (including production, distribution, and business services, as well as core activities like research and development) to lower-cost locations outside national borders " (p.100).
Hirschheim et al. (2005)	"The migration of all or part of the development, maintenance and delivery of IT services to a vendor located in a country different from that of the client" (p.1003).
King & Torkzadeh (2008)	"A form of outsourcing performed outside the client organisation's home country" (p.207).
Manning, Massini & Lewin (2008)	"The process of sourcing any business task, process, or function supporting domestic and global operations from abroad, in particular from lower cost emerging economies" (p.35).
Lewin, Massini & Peeters (2009);Kenney, Massini & Murtha (2009)	"A new form of inter- nationalization by which firms disaggregate their value chains across multiple locations" (p.903)
Doh, Bunyaratavej & Hahn (2009)	"The transnational relocation or dispersion of service related activities that had previously been performed in the home country" (p.926).
Mudambi & Venzin (2010)	"The global disaggregation of the value chain as an attempt by organisations to combine the comparative advantages of geographic locations with their own resources and competencies to maximise their competitive advantage" (p.1511).
Bunyaratavej et al. (2011)	"Domestic company sourcing products or services from a foreign-based company, either a subsidiary of the focal organisation (captive or international in-sourcing) or an independent service provider (offshore outsourcing)" (p.72).

1.7.1.2 Outsourcing versus Offshoring

While the terms *outsourcing and offshoring* are often used almost as synonyms, we choose to distinguish between the two. Bunyaratavej et al. (2011) tried to clear some of the confusion surrounding the terms offshoring and outsourcing. He described outsourcing as "a company's purchase of products or services from another domestic or offshore company"(p.71) and he defined offshoring as "a domestic company sourcing products or services from a foreign-based company, either a subsidiary of the focal organisation (captive or international in-sourcing) or an independent service provider (offshore outsourcing)" (p.72).

We visualise outsourcing and offshoring as a decision which organisations make regarding their strategy to cross both the organisation and the country boundaries. Simply speaking, the transcending of an organisation's boundary for functions can be described as outsourcing, whereas crossing the nation's boundary for functions can be viewed as offshoring. In this context, offshoring is about location: when an activity is offshored, it is performed in a different location to the main operation (which is then the onshore location). Outsourcing, on the other hand, is about offshoring governance mode: when an activity is outsourced, it is performed by another organisation—a third party—as opposed to in-house by the organisation itself. Consequently, any particular activity can be performed either offshore or onshore, and can be performed in-house or be outsourced. Table 1.6 represents the distinction and relationship between the concepts.

Table 1-6: The boundaries of outsourcing and offshoring

Outsourcing Versus Offshoring			
Organisation Boundary (Outsourcing ↑)	Outside	**II** Onshore Outsourcing (Domestic third party)	**IV** Offshore Outsourcing (Non Captive: International third party, Local third party and JV)
	Inside	**I** Onshore Insourcing (Traditional Model)	**III** Offshore Insourcing (Captive centre) e.g. local organisation subsidiary
	Boundary	Inside	Outside
	Country Boundary (Offshoring →)		

Note: Built on the disintegration, location and externalization (DLE) model (Kedia and Mukherjee, 2009, p. 257) and the boundaries of outsourcing and offshoring (Sirvastava, et al., 2008, 45)

Table 1.6 illustrates the four alternatives modes. Quadrant (I) represents a domestic-based organisation, with major tasks performed within the organisation's boundaries, where no outsourcing or offshoring is undertaken. Quadrant (II) relates to outsourcing, where organisations contract out some tasks to domestic providers. Quadrant (III) represents those instances when an organisation shifts some of its functions offshore, as fully-owned/captive operations such as a subsidiary. Finally, Quadrant (IV) identifies cases where both outsourcing and offshoring take place. That is, when an organisation's tasks are outsourced offshore to a local or international service provider and/or joint venture. In this thesis, we focus primarily on those activities that fall within quadrants (III) and (IV).

According to the table presented above, offshoring is a new but different phenomenon of internationalization which does not emphasize the accumulation of new foreign market knowledge (Johanson and Vahlne 1977). Rather, offshoring shows a "sudden relocation to locations in which the companies may not have prior knowledge" (Bals, et al., 2013, p.12)

1.7.2 The degree of offshoring

In this research, we define the degree of offshoring as the amount of production or service that has been transferred by the organisation from its parent country to a foreign destination(s). Previous research studies in offshoring and outsourcing literature do not provide information about the quantitative scope of offshoring and outsourcing (Jabbour, 2010; Doh et al. 2009; Srivastava et al. 2008; Jensen, Kirkegaard & Laugesen, 2006; Levy, 2005). They merely offer a yes/no measure of whether or not offshoring or outsourcing has occurred in the individual organisation (Jensen, Kirkegaard & Laugesen, 2006). An organisation heavily involved in the offshoring of jobs and functions to different suppliers and destinations thus receives the same weight as an organisation that has offshored to a much lesser degree.

Past outsourcing and offshoring studies in different contexts have stressed the importance of considering the *intensity or degree* of outsourcing or offshoring implementation to assess the true effect. For example, Jabbour (2010), Doh, Bunyaratavej and Hahn (2009) and Rai and Patnayakuni (1996) advocated that there might be different degrees of outsourcing adoption rather than just conceptualising adoption as a dichotomous yes/no variable.

Srivastava et al. (2008) and Jensen et al. (2006) in their studies on determinants of offshoring highlighted the importance of considering the intensity of offshoring from the client organisation. Rothaermel et al. (2006) found that an organisation's degree of strategic outsourcing positively affects performance improvement.

Following a similar logic, in this study we explicitly consider the effect of the degree of offshoring on performance improvement. The independent variable is the degree of offshoring. To operationalise the degree of offshoring we use three components as outlined in Table 1.7: *the percentage of jobs offshored, the percentage of tasks offshored* and *the percentage of offshoring implementations.*

Table 1-7: Summary of the degree of offshoring variables

Degree of Offshoring [1]	Description [2]	Source [3]
Number of Jobs Offshored as a percentage of total jobs	Total number of jobs that has been offshored by the participating organisation to captive or third- party service provider as a percentage of total jobs.	(Gupta et al. 2010); (Dunn, Kohlbeck & Magilke, 2009); (Srivastava et al. 2008); (Dunn et al., 2007); (Jensen et al., 2006)
Number of tasks offshored as a percentage of total tasks	Total number of tasks that has been offshored by the participated organisation to captive or third-party service provider as a percentage of total tasks.	(Jensen and Pedersen, 2012); (Gupta et al.2010); (Jabbour , 2010); (Massini, Ajchariyawong and Lewin, 2010); (Dunn, Kohlbeck, and Magilke, 2009); (Doh, et al., 2009); (Srivastava et al. 2008); (Hutzschenreuter, et al., 2007)
Number of offshoring implementations as a percentage of total implementations	Total number of offshoring implementations that has been entered by the participated organisation through captive or third-party service provider as a percentage of total implementations.	(Gooris & Peeters 2012); (Hutzschenreuter et al., 2011); (Massini, Ajchariyawong and Lewin, 2010); (Jensen et al. 2006); (Rai & Patnayakuni 1996)

Note: A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

The dimensions used to capture the degree of offshoring variable has been identified and/ or used by several offshoring and outsourcing researchers to measure different variables such as the scale and scope of offshoring (e.g. Gooris & Peeters 2012; Massini, Ajchariyawong and

Lewin, 2010 and Dunn, Kohlbeck & Magilke, 2009), offshoring experience (e.g. Jensen and Pedersen, 2012); the publicly available knowledge of offshoring (e.g. Hutzschenreuter et al., 2011); the task-level effects of offshoring (e.g. Doh, et al., 2009; Hutzschenreuter, et al., 2007); and the intensity of information systems (IS) offshoring (Srivastava et al. 2008). We combined three widely used dimensions to measure the magnitude of offshoring and we labelled this variable as the *Degree of Offshoring*. A factor analysis was then conducted and it was clearly concluded that the measures for each dimension are highly correlated with each other. The degree of offshoring measures was expressed as a percentage of the total to enable us to control for and compare organisations of different sizes.

1.7.3 Financial performance

The effect of offshoring on an organisation's performance improvement has been identified in the literature as one of the issues that still call for further investigation (Gilley & Rasheed, 2000; Mol et al. 2004; Quélin & Duhamel, 2003). A fundamental problem in addressing offshoring performance is the question of how success or performance can be measured (Hutzschenreuter, Lewin & Dresel, 2011; Harland et al. 2005). Previous studies have focused on the performance effect from a short-term perspective and using single term measures. Past research has used different performance metrics for evaluating financial performance (Hutzschenreuter, Lewin & Dresel, 2011; Bharadwaj, 2003; Dehning & Stratopoulos, 2002; Hitt et al. 2002; Santhanam & Hartono, 2003, Smith, Mitra and Narasimhan, 1998). What is also missing is a long-term assessment of offshoring. In order to gain more objective and accurate results, we adopt a longer-term performance perspective (Novak & Stern, 2008) and a multi-dimensional approach to measure performance improvement in order to minimise possible weaknesses associated with the use of a single performance measure approach (Kotabe 1992; Murray, Kotabe & Wildt 1995).

Furthermore, we adopt a dynamic orientation to measuring offshoring performance. Our approach is to adopt a longer-term perspective and report on the results over a period of six years (i.e. one year before the offshoring announcement and five years after the offshoring announcement). This allows the researcher and the reader to better understand the evolution of the indicators. Therefore, using prior research as a guide, this study employs dimensions of performance to capture the financial, efficiency and economic dimensions of the

organisation's performance. The three employed measures include, respectively: The Change between five- years post-offshoring and one-year pre-offshoring in (1) *net- operating profit*, (2) *cost of goods sold as a percentage of sales*, (3) *shareholder's value growth rate*.

ΔPerformance = (Value)j – (Value)i , where i = Year -1 and j = Year +1,+3 and +5

The reasons for adopting such measures are the following: First, the use of financial measures remains a common, widely accepted approach in strategy-performance studies (Jusoh & Parnell, 2008).

Second, net operating profit is one of the most important financial measures for evaluating business performance (Smith et al. 1998). It can be used to gauge the general health of an organisation's core business or businesses, as well as evaluating management's efficiency by comparing the quality of an organisation's activity to its competitors. Net operating profit measures the return that owners receive from their investments (Kaplan, 1989, Smith et al. 1998 and Kivijarvi and Saarinen,1995).

Third, the cost of goods sold as a percentage of sales is a very important criterion as it signifies the effect of offshoring on efficiency. The cost of goods sold as a percentage of sales has been used as an important measure for an organisation's efficiency level in recent offshoring studies such as Prezas et al. (2010). It has also been expected for offshoring organisations with a higher cost of goods sold to gain greater benefits of offshoring (Prezas et al., 2010).

Fourth, shareholder's value growth rate as a measure of performance has received considerable attention in the literature (Amit & Livnat, 1988). It has been touted as the most accurate means of evaluating how well an organisation creates shareholder wealth (Dutta & Reichelstein, 2005; Zaima, Turetky & Cochran, 2005).

Fifth, other circumstances, unrelated to offshoring, which can affect the accuracy of the empirical evidence from the financial data. To resolve this problem, we adjusted according to industry the value of the financial performance data for each examined organisation by using deviations from industry medians instead of the "raw" values of the financial data (Brown, Gatian, and Hicks, 1995; Kaplan, 1989 and Smith, 1990, Smith et al., 1998). The justification

for this approach is that circumstances unrelated to offshoring will exist uniformly across the industry and will not be abnormal to organisations that offshore. In addition, the circumstances that foster offshoring may expose themselves through performance measures that are not analysed in this study. To resolve this problem we limited the analysis to a few specific hypotheses that could be rationally assessed by selecting the applicable performance measures after a careful analysis of past offshoring literature

Although the focus of this thesis is on long-term performance improvement, measured five years after the offshoring announcement year, we complemented our research by exploring the time frame aspect. Thus, we have compared the outcomes of the relationship between offshoring and performance improvement one and three years after the offshoring announcement year with the outcomes of offshoring and performance improvement five years after the offshoring announcement. A brief description of performance measures used in this study and their past references is given in Table 1.8.

Table 1-8: Summary of performance variables

Performance	Description	Source
Change in Net Operating Income	Net Operating Income = Gross Income – Operating Expenses - Depreciation Difference: NOI [(Y+5) – (Y-1)]/Y-1	(Dekker, 2004); (Prezas et al.2010); (Smith, Mitra and Narasimhan, 1998)
Change in Cost of goods sold as a percentage of Sales	% of Cost of goods sold / Sales % COGS/S [(Y+5) – (Y-1)]/Y-1	(Massini, Ajchariyawong and Lewin,2010); (Prezas et al., 2010); (Markusen, 2005);
Change in Shareholder's Value Growth Rate	% of Shareholder's Value Growth	(Prezas et al.2010); (Dutta and Reichelstein, 2005); Zaima, Turetky and Cochran, 2005); (O'Reilly and Chatman, 1996, pp. 160); (Das & Teng, 1998); (Smith et al. 1998); (Smith, Mitra and Narasimhan, 1998)

Note: the offshoring announcement year identified as year 0 (Y0), pre-offshoring announcement year as year -1 (Y-1) and post-offshoring announcement year as year (Y+1), (Y+3) and (Y+5). Data collected between 2010 and 2011. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

The dimensions used to capture the performance variables of offshoring organisations has been identified and/ or used by several offshoring and outsourcing researchers to measure firm performance. Among these are profitability measure; operating performance (e.g. Prezas et al., 2010; Smith, Mitra and Narasimhan, 1998) this measure has also been used as a measure for operational efficiency, efficiency level or cost measure; cost of goods sold as a percentage of sales (e.g. Prezas et al., 2010; Massini, Ajchariyawong and Lewin, 2010; and Markusen, 2005) and shareholder's value growth rate (e.g. Dutta and Reichelstein, 2005; Zaima, Turetky and Cochran, 2005).

We combined the three widely used dimensions to measure the performance of offshoring organisations. We identified this variable as *Performance Improvement*. A factor analysis was then conducted and clearly concluded that the measures for each dimension of performance were highly correlated with each other.

1.7.4 Offshoring strategies

Offshoring has traditionally been treated as a cost-saving approach (Contractor et al. 2010; Bartell, 1998; Cooke, Shen & McBride, 2005) to conduct activities at offshore destinations at a lower cost than the home country through market and/or arms-length transactions, thus, potentially facilitating a reduction in transaction costs (Coase, 1937) and production costs. In particular, scholars apply *transaction cost economics* to explain outsourcing and offshoring strategies (Farrell, 2005; Grote and Täube, 2007; Bock, 2008; Stratman, 2008; Ellram et al. 2008; Viveket al. 2008) by lower overseas labour costs, managerial costs as well as government costs linked to these overseas activities (Coase, 1937; Williamson, 1975).

In this thesis, we argue that offshoring can serve other purposes, which are potentially of equal or greater importance to cost-reduction, as among them efficiency-enhancing and global growth. Three different theories are used to contribute to our understanding of the effect of these three different offshoring strategies on the relationship between the degree of offshoring and performance improvement. Specifically, (1) transaction cost economics (Coase, 1937; Williamson, 1975) is used to explain the cost-reduction strategy; (2) the resource-based view (Penrose, 1959; Barney, 1991) is used to explain the efficiency-enhancing strategy (resource

strategy); and (3) entrepreneurship theory (Schumpeter, 1934; Davidson, 1989) is used to explain the growth strategy.

1.7. 5 Offshoring governance modes

Offshoring governance modes comprise methods by which an organisation procures/ produces services from/in a foreign location. In this study, these various modes of offshoring are classified based on the level of control (Root, 1987; Roza et al. 2011) the organisation has over the production/ performance of the offshored service.

Offshoring activities can be implemented by non-captive or captive offshoring governance modes (Manning, Massini & Lewin, 2008; UNCTAD, 2004). While the former entails relocating activities to foreign service providers, the latter implies vertical integration at foreign locations. Other non-captive modes can be implemented, including as intermediate modes (licensing, strategic partnership, joint venture, and build-operate-transfer, etc.) which might also be covered under the captive mode.

In this research, we divide offshoring governance modes into captive offshoring and non-captive offshoring (UNCTAD, 2004), distinguishing between a full and shared ownership governance mode on one hand and the absence of a governance mode on the other hand.

1.7. 6 Offshoring absorptive capacity

Absorptive capacity is fundamentally a function of the organisation's level of prior related knowledge. Cohen and Levinthal (1989, 1990) defined the term as the "ability of a firm to recognise the value of new, external information, assimilate it, and apply it to commercial ends" (p.128).

To measure absorptive capacity (at organisational level), participating organisations were asked to state the extent to which they agree or disagree, on a seven-point scale, with three construct components: (1) recognition (i.e. ability to recognise external knowledge on the offshore destination); (2) assimilation (i.e. ability to integrate external knowledge from the offshoring destination); and (3) commercialisation of new information (i.e. ability to

implement external knowledge developed by the offshore destination in new processes / products/ services) (Cohen & Levinthal, 1990).

1.7.7 The task-level effect

In this thesis, we employ a disaggregated view of offshoring effects by focusing on the task-rather than the firm- or function-level. Recent offshoring research shows that there is a gap in the literature of employing the disaggregate level; the majority of previous research discuss offshoring on the aggregate level without taking into consideration the characteristics of the offshored activities (Bals et al., 2013).

Many researchers in the international business field have recommended using such a disaggregated view as a useful analytical tool for many reasons such as: (1) it allows organisations to distinguish between its critical core competencies and non-core competencies and thus control the offshoring process of these tasks (Jensen & Pedersen, 2012). (2) It allows organisations to capture the linkages and interdependencies between tasks when they are conducted at onshore and offshore locations (Doh et al. 2009; Jensen, 2009; Jensen & Pedersen, 2012; Kedia & Mukherjee, 2009; Kumar et al. 2009; Mudambi & Tallman 2010). (3) It allows organisations to consider the differences between the characteristics of these potential offshoring tasks and match them with the optimal offshoring governance mode and offshoring destination (Jensen & Pedersen, 2012); (4) it allows organisations to take advantage of different cost structures (transaction costs, labour and other costs) variances between home and host countries (Gooris & Peeters; 2012; Beugelsdijk, Pedersen & Petersen, 2009). (5) It will also enable organisations to reconfigure their business activities and operate more efficiently (Gooris & Peeters; 2012; Doh, 2005; Lewin & Peeters, 2006; Bunyaratavej, Hahn & Doh, 2008; Kedia & Mukherjee, 2009; Lewin, Massini & Peeters, 2009).

The main features we considered to distinguish between the nature of different tasks are : (1) whether they belong to less advanced or more advanced tasks (Jensen & Pedersen, 2012); (2) whether their execution requires low-skilled or high skilled labour and whether those activities are standardized or customised (Sako,2006); and (3) whether they involve simple or complex processes (Karmarkar, 2004). Based on these features we categorised the offshored tasks into: (i) *standardized tasks* versus (ii) *high value-added tasks*.

1.7.8 The time effect to success

Several offshoring researchers have argued that offshoring success can be measured either with respect to the achieved and expected performance and savings level or by time frame required to achieve these (e.g. Hutzschenreuter et al., 2011). Specifically, for offshoring organisations the time frame to achieve the expected offshoring goals, such as reducing cost, improving service level, easing competitive pressure or accessing qualified personnel becomes very critical to offshoring organisation, (Lewin and Peeters 2006b) can be considered. The performance aspect has been given considerable attention by international business researchers (e.g. Bhalla, Sodhi & Son, 2008; Farell, 2003, 2005; Fifarek, Veloso & Davidson, 2008; Gilley & Rasheed, 2000, Prezas et al., 2010) however, the time aspect is still under-researched (Hutzschenreuter et al., 2011).

Although the focus of this thesis is long-term performance improvement, measured five years after the offshoring announcement, we explore the time frame aspect by comparing performance improvement one and three years after the offshoring announcement year.

1.8 Scope of research

At the outset, it is apparent that the research problem presented in section 1.4 provides a natural boundary for the research. While the empirical results could be interesting, and have both academic and managerial implications, caution should be exercised when generalising the findings beyond the scope of this thesis. *First,* results were derived from a sample consisting of relatively small to medium sized Australian-based organisations. It raises a possible concern that findings might be country-specific. Studies with a comparative sample from other countries should be tested to confirm the outcomes. *Second,* the target population for the thesis was narrowly defined to include a set of similar size organisations, which could affect the generalisability of the research. Studies with larger samples should be used to test and extend the generalisability of our findings. *Third,* our sample consisted of organisations with a size between 0-200 employees. Future research could investigate the implications of using a similar research model, but with larger-sized organisations to complement the picture of the relationship between the degree of offshoring and performance for the full range of organisation sizes. The *fourth* limitation is that this thesis, like any other, is by its nature not exhaustive in its investigation. We will not investigate the influence of all the variables on the

degree of the offshoring-performance relationship, and future research could explore how other factors, such as those relating to the country under investigation, could influence our research model. As in any empirical study, this paper's limitations provide promising lines of future research.

1.9 Conclusion

The introductory chapter has served its purpose in laying the groundwork for this thesis. It has clearly shown that, despite the voluminous literature on the offshoring topic and although offshoring has been increasingly practiced over the last 10 years, offshoring strategy has not always resulted in performance advantages. Motivated by the importance of understanding the performance outcomes of offshoring decisions driven by different strategies, offshoring types and offshoring governance modes, and due to a perceptible paucity of current literature dealing with the subject, this thesis will investigate the effect of the degree of offshoring on performance improvement.

In order to capture all the relevant strategic drivers of offshoring, it is important to follow a co-evolutionary theoretical approach (Haakonsson et al., 2013). This approach will also allow us to consider the interaction and interdependence between the strategic drivers. This co-evolution approach has multiple theoretical foundations; each provides partial explanation of the reasons behind the implementation of offshoring. Transaction cost economics theory (cost-reduction through lower risk and more contract enforcement), resource-based theory (driven the search for new knowledge and talents at the offshoring locations) and entrepreneurship theories of growth (driven by the readiness of organisations to grow and expand their geographic boundaries (Davidsson, 1989). Each of these theories offers insight into the underlying drivers of offshoring.

Following the thesis structure outlined in the thesis overview, the research background was set; the research problem was identified and the methodology was briefly presented and justified. Key terms and definitions were clearly explained. The thesis was outlined with brief descriptions of each article/chapter and the definitions were presented. The delimitations of scope were presented and justified. Finally, the theoretical framework was presented. On these grounds, a comprehensive discussion of the research papers that form this thesis will proceed.

Chapter 2

2 RESEARCH STUDY I: The Relationship between the Degree of Offshoring and Financial performance: The Effect of Offshoring Strategies

Abstract

In the increasingly competitive global arena, offshoring is being used as a restructuring mechanism to send components of the value chain offshore. Offshoring is an outcome of many strategic drivers including the need to reduce costs, cope with competitive pressures and achieve growth objectives. Cost reduction is only one of many possible strategic reasons for undertaking offshoring. Other strategic approaches which could justify the use of offshoring are enhancing efficiency and leveraging of competence-based advantages, growth and geographic expansion and speed to market. Although a recent study by Roza, van den Bosch and Volberda (2011) using a multi-country database of the Offshoring Research Network (ORN) categorized the offshoring drivers into three offshoring strategies (i.e. cost-reduction, efficiency-enhancing and growth), there appears to be little academic research exploring the effect of different offshoring strategies on organisation's performance improvement.

The current study contributes to the understanding of global sourcing literature by exploring the effect of different offshoring strategies on performance improvement. Furthermore, this research study examines an Australian experience of the adoption of these strategies by offshoring organizations. This research uses transaction cost economics, the resource-based view, and entrepreneurship theories to conceptualise offshoring as a strategic approach for enhancing organization's performance improvement. The focus of the research is on the disaggregated task-level and the long-term effect of the strategies on organization's performance improvement. Using primary data on 77 Australian organizations, the empirical results of partial least squares (PLS) analysis suggests that implementing offshoring to achieve better efficiency and/or growth will have significant positive direct effects on performance improvement and moderating effects on the relationship between the degree of offshoring and performance improvement. However, implementing offshoring as a cost-reduction strategy will have a negative direct and moderating effect.

Through this research, we make some important contributions and offer implications for research and practice.

Keywords: the degree of offshoring, cost-reduction, efficiency-enhancing, growth, high

value-added tasks, standardized tasks, performance, transaction cost economics, resource-based view, entrepreneurship theory.

2.1 Introduction

In the international business literature, offshoring is often regarded as a relatively new form of internationalisation. Organizations adopt offshoring to disaggregate tasks or business functions across national borders (Lewin, Massini & Peeters, 2009) for the purpose of serving domestic or global markets (Kenney, Massini & Murtha, 2009). This research paper studies offshoring as an aspect of the global disaggregation of the value chain (Mudambi, 2008) and is conceptualised as a strategic approach for enhancing performance improvement. Prior research studies suggest that organizations are driven by a mixture of sourcing strategies, including reducing labour and other costs, accessing talent, increasing speed to market, establishing access to new markets and other growth-related objectives (Lewin & Couto, 2007; Massini et al. 2010).

A recent study by Manning, Massini, Peeters and Lewin (2012), examined how sourcing strategic goals may affect governance choices. Roza, van den Bosch and Volberda (2011) investigated the effect of organization size (i.e. small, medium and large) on the decision to employ different offshoring strategies (i.e. cost, resource and entrepreneurial strategy). Another recent study by Jensen and Pedersen (2012) exploring the causes of offshoring more advanced tasks shows that this type of offshoring is different to the offshoring of less advanced tasks, which is driven by cost of labour and process. The offshoring of advanced tasks is motivated by achieving international competitiveness through access to cross border knowledge flow and resources. Roza, van den Bosch and Volberda (2011) categorised drivers used in the Offshoring Research Network (ORN) survey into three driver-categories. To explain the identified strategic drivers, they used three different theories. Transaction cost economics (Coase, 1937; Williamson, 1975) was used to explain the cost driver, resource-based view (Penrose, 1959; Barney, 1991) to explain the resource driver and entrepreneurship theories (Schumpeter, 1934; Davidsson, 1989) to explain the entrepreneurial drivers.

This study complements the above studies by examining the effect of different strategic goals on performance. In specific, this study serves the following purposes:

1. Extending Roza, Bosch and Volberda's (2011) research by answering their research call, "future research has to investigate the effect of offshoring drivers on offshoring performance, for example improved competitive position and organization growth" (p.321).

2. The findings of Jensen and Pedersen (2012) show that the antecedents of offshoring more advanced tasks including the strategic drivers differ from the conventional view of offshoring less advanced tasks. Hence, the existing theory suffers some limitations to explain this new trend in offshoring and a multi-theoretical perspective is needed. In addition to the transaction cost economics theory which mainly explains offshoring of standardized tasks to achieve cost savings, this research explores the use of resource-based view, and entrepreneurship theories to explain the offshoring of advanced tasks which are mainly motivated by knowledge seeking.

3. By providing empirical findings at the task-level rather than at firm-level, implementation- level or function-level.

4. In addition, prior offshoring research examining the offshoring –performance relationship mostly concentrated on the performance improvement measures such as profitability and sales performance over a short period of time (Bhalla et al. 2008). This has produced mixed findings about offshoring success (Gilley & Rasheed, 2000). In this study, we suggest that it takes some time for the positive effects of offshoring to emerge. Therefore, specific attention needs to be paid to the long-term performance effects of offshoring (e.g. Novak & Stern, 2008) and to expand the range of items used to actually measure performance (e.g. Kotabe 1992; Murray, Kotabe & Wildt 1995). As such, this research study investigates the effect of different offshoring strategies/drivers on offshoring performance using multi-dimensional long-term measures of performance, including: the change between five- years post-offshoring performance and one-year pre-offshoring performance in (1) *net operating profit*, (2) *Cost of goods sold as a percentage of sales*, (3) *shareholder's value growth rate*.

5. The main disadvantage of previous empirical studies on the influence of offshoring is that they do not provide information about the quantitative scope of offshoring and outsourcing (Jabbour, 2010; Doh et al. 2009; Srivastava et al. 2008; Jensen, Kirkegaard and Laugesen, 2006; Levy, 2005). They merely provide a yes/no measure of whether or not offshoring or outsourcing has occurred in the individual organization (Jensen, Kirkegaard & Laugesen, 2006). Hence, this research focuses on

the quantitative scope by measuring the number of high value-added tasks, number of jobs and number of implementations offshored.

The four specific research questions for this study are:

1. What drives organizations to offshore?

2. Is the performance of an offshoring organization associated with its degree of offshoring?

3. How do different offshoring strategies influence performance improvement?

4. In addition, how do different offshoring strategies influence the relationship between the degree of offshoring and performance improvement? Does the influence of these strategies vary according to the nature of the offshored tasks (the offshoring of high value-added tasks versus standardized tasks)? Does the time have an effect on the performance improvement?

The paper is structured as follows. First, it reviews the recent literature of the relationship between offshoring and organization's performance improvement. Second, it discusses the different types of offshoring strategies and their effect on the relationship between the degree of offshoring and organization's performance improvement. Third, it describes the research method, the data collection approach and the empirical models used to test a number of relevant hypotheses. Fourth, the results are analysed. Fifth, the findings are discussed. The paper ends with a concluding section discussing implications, limitations and directions for future research.

2.2 Theoretical overview

Organizations adopt offshoring for several reasons. Offshoring was initially proposed as a cost-saving approach (Bartell, 1998; Cooke, Shen & McBride, 2005; Farrell, 2005) to conduct business activities at offshore destinations at a cost lower than the home country cost through market and/or arms-length transactions, thus potentially contributing to a reduction in transaction costs (Coase, 1937), labour and operational costs (Jensen and Pedersen, 2012). In particular, scholars have applied transaction cost economics to justify offshoring strategies (Farrell, 2005; Grote & Täube, 2007; Bock, 2008; Stratman, 2008; Ellram et al. 2008; Vivek et al. 2008; Roza et al., 2011) in terms of achieving lower human resources costs, management costs, as well as compliance costs related to these outsourced transactions (Coase, 1937; Williamson, 1975).

More recently, additional theories have been used as a basis for justifying offshoring including the resource-based view (Barney, 1991; Penrose, 1959; Vivek et al. 2008) and entrepreneurship theories of growth (Schumpeter, 1934; Davidsson, 1989; Baumol, 1993; Fiet, 2001; Phan, 2004). According to the resource-based view, organizations use offshoring as a strategy to incorporate the comparative advantages of geographic locations with their own resources and competencies to maximise their competitive advantage (Mudambi & Venzin, 2010), and to get access to new resources (Holcomb & Hitt, 2007). The entrepreneurship perspective focuses on the readiness of organizations to grow and expand their geographic boundaries (Davidsson, 1989) and realise organization growth (Lewin & Peeters, 2006a) through the relocation of activities abroad. Therefore, it is important to further discuss the attributes of offshoring strategies and assess their effect on performance improvement.

Researchers in the offshoring field have recently proposed the importance of analysing the offshoring activities at a task-level instead of a firm-level or a function-level (Jensen & Pedersen, 2012). A disaggregated view focusing on the task- level can act as a useful analytical tool for many reasons: (1) It allows organizations to distinguish between its critical core competencies and non-core competencies and thus control the offshoring process of these tasks (Jensen & Pedersen, 2012). (2) It allows organizations to capture the linkages and interdependencies between tasks when they are conducted at onshore and offshore locations (Doh et al. 2009; Jensen, 2009; Jensen & Pedersen, 2012; Kedia & Mukherjee, 2009; Kumar et al. 2009; Mudambi & Tallman 2010). (3) It allows organizations to consider the differences between the characteristics of these potential offshoring tasks and match them with the optimal offshoring governance mode and offshoring destination (Jensen & Pedersen, 2012). (4) It allows organizations to take advantage of different cost structures (transaction costs, labour and other costs) and variances between home and host countries (Gooris & Peeters; 2012; Beugelsdijk, Pedersen & Petersen, 2009). (5) It will also ultimately enable organizations to reconfigure their business activities and operate more efficiently (Gooris & Peeters; 2012; Doh, 2005; Lewin & Peeters, 2006; Bunyaratavej, Hahn & Doh, 2008; Kedia & Mukherjee, 2009; Lewin, Massini & Peeters, 2009).

Therefore, we examine the influence of the offshoring strategies on performance improvement using a disaggregated approach focusing on the task- level. We distinguish

between offshoring tasks based on: (1) whether they belong to less advanced or more advanced tasks (Jensen & Pedersen, 2012); (2) whether their execution requires low-skilled or high skilled labour and whether those activities are standardized or customised (Sako,2006); and (3) whether they involve simple or complex processes (Karmarkar, 2004); and (4) whether or not these tasks are mainly conducted by knowledge workers with a high level of education (Drucker, 1959; Reich, 1991).

Hence, the distinction we make is between relatively *standardized tasks* versus *high value-added tasks*. In doing so we also distinguish between two types of degree of offshoring: (1) the degree of offshoring of high value-added tasks and (2) the degree of offshoring standardized- tasks.

To meet the aim of this research a conceptual model was developed to investigate the relationship between the degree of offshoring and performance and the influence of offshoring strategies on an organization's performance improvement (see Figure 2.1), which is both supported theoretically and empirically. The next section develops the hypotheses to be tested in this research paper.

Figure 2-1: Conceptual model - offshoring, strategies and performance improvement
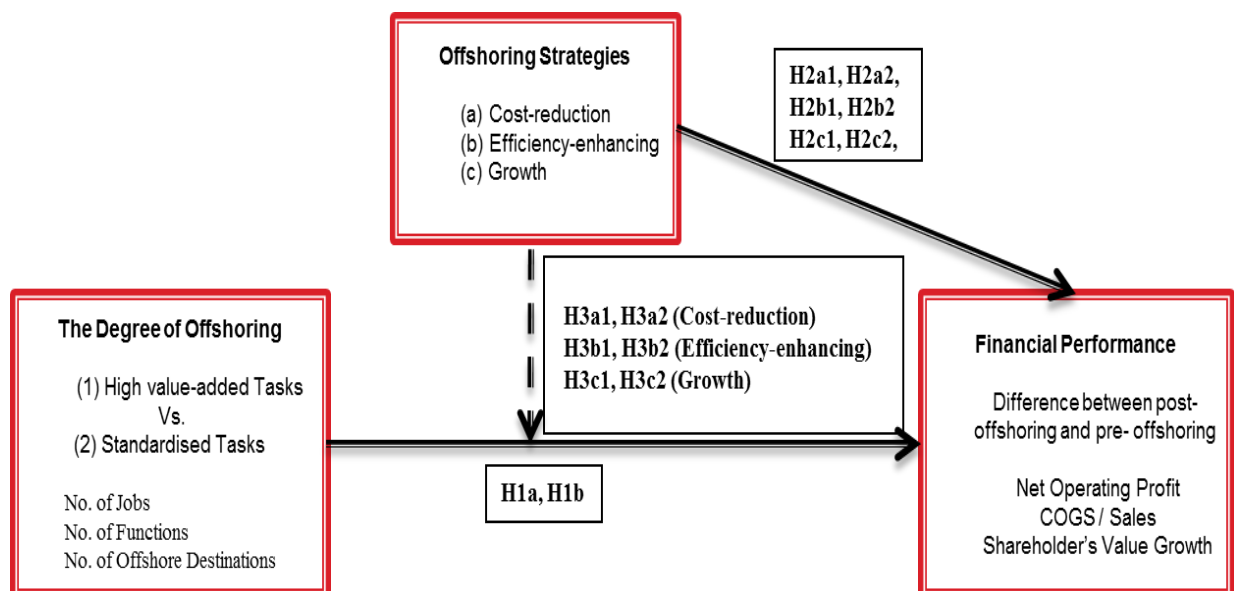
2.2.1 The degree of offshoring and performance improvement

In order to leverage global cost differentials, enhance efficiency and drive growth, organizations are increasingly turning to offshoring. There is evidence that offshoring contributes positively to market value (Alexander & Young, 1996) and financial performance (Gilley & Rasheed, 2000). From a measurement perspective, a review of the literature identified a number of individual measures of the degree of offshoring. To achieve a more comprehensive multi-item coverage this paper defines the degree of offshoring in terms of the number of jobs offshored, the number of tasks offshored and the number of offshoring implementations (Gupta et al. 2010; Jabbour 2010; Srivastava et al. 2008; Rai & Patnayakuni 1996). A factor analysis was conducted, concluding that the measures for each construct are highly correlated with each other.

There are theoretical arguments and empirical evidence that offshoring increases an organization's chances of survival (Coucke & Sleuwaegen, 2008). Possible positive performance effects of offshoring are thought either to occur through labour cost advantages (Bunyaratavej et al. 2007; Erber and Sayed-Ahmed, 2005; Farrell, 2005), increased access to resources (Couto et al. 2006), and organization growth by enabling volume expansion (Chandler, 1962). However, empirical evidence from several authors has reported either negative offshoring performance effects (Fifarek, Veloso & Davidson, 2008; Kotabe, 1990) or non-significant performance effects (Bhalla, Sodhi & Son, 2008; Gilley & Rasheed, 2000). The equivocal results and relative lack of empirical evidence regarding the true effect of offshoring to performance (Prezas et al., 2010) warrant taking a more detailed look in order to better understand whether the benefits are real or illusory.

High value-added tasks are generally more difficult to offshore as such tasks are closer to the organization's core activities and form the main part of the organization's critical competences (Jensen and Pedersen, 2012). Although high value-added tasks are generally more costly and difficult to offshore as they are often deeply embedded in the organization, by definition they create more value for the firm. The offshoring of high value-added tasks can lead to process innovation that positively influences organizational performance (e.g. Thornhill 2006) and is important to realising competitive advantages in international and global markets (Franko 1989; Porter 1990).

We, therefore, hypothesize that organizationfinancial performance gains are associated with an organization's degree of offshoring of high value tasks:

Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.*

However, organizations also have a propensity to offshore standardized and routine tasks. Even though standardized tasks, by of their nature, are generally easier to offshore they usually have less strategic value (Jensen and Pedersen, 2012) and do not contribute as much to the performance gains or shareholders' wealth as the offshoring of high value-added tasks. Therefore, we hypothesize:

Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.*

2.2.2 Interaction between offshoring strategies and performance improvement

In order to capture all the relevant strategic drivers of offshoring, it is important to follow a co-evolutionary theoretical approach (Haakonsson et al., 2013). This approach will also allow us to consider the interaction and interdependence between the strategic drivers. This co-evolution approach has multiple theoretical foundations; each provides partial explanations for implementing offshoring. The theories in question are: transaction cost economics theory (cost-reduction through lower risk and more contract enforcement), resource-based theory (driven the search for new knowledge and talents at the offshoring locations) and entrepreneurship theories of growth (driven by the readiness of organisations to grow and expand their geographic boundaries (Davidsson, 1989). Each theory gives insight into the underlying drivers of offshoring

In this study, three different groups of offshoring strategies are analysed: cost- reduction, efficiency-enhancing and growth strategies. In addition, we explain the differential performance among offshoring organizations due to implementing these different offshoring strategies. In this regard, the focus through this paper is on comparing the different performance outcomes for employing each one of these strategies versus the others. Hence,

we acknowledge that some organizations might use more than one strategy at the same time however, the combination effect was not considered in this paper.

2.2.2.1 Cost-reduction strategy and performance improvement

Offshoring is quite often used as a cost-reduction strategy (Jensen & Pedersen, 2012; Contractor et al. 2010; Maskell et al. 2007; Cooke, Shen & McBride, 2005; Bartell, 1998). Organizations may be able to reduce the costs of unskilled labour-intensive transactions lower than the operating level in their home country. This can be achieved through either offshore outsourcing (i.e. non-captive third party such as a mobile phone call centre or the offshoring software design) or captive offshoring (i.e. establishment of offshore subsidiary of the local organization) (Roza et al., 2011). However, one should be careful when evaluating the advantages of an offshoring arrangement to take into account the associated hidden costs such as communication costs (Stringfellow et al. 2008) and/or set-up costs (Ellram et al. 2008).

Coase's (1937) argument in relation to transaction costs economics offers the first rationale for offshoring (Roza et al., 2011; Stratman, 2008; Farell 2005) and offshore outsourcing (Ellram et al. 2008). Coase (1934) advanced the concept of transaction costs to distinguish these costs from other costs to the organization. In line with Coase's proposition, we propose that reducing transaction costs is one way of reducing the total costs of the organization but not the only way. In this regard, we acknowledge the difference between the general cost reduction and transaction cost reduction.

Williamson (1975) argues that the costs of transacting across the market may be an expensive option in some instances and that these activities within a vertically integrated organizational structure (such as wholly-owned subsidiary or joint venture) is therefore a sound strategic decision. However, transaction costs analysis justifies transacting out certain activities if they are less efficiently performed within the vertical organizational structure. Malone, Yates, and Benjamin (1987) found that, in the area of information technology, there is a steady decline in the unit costs of coordinating across the market, which favours a market organization, as compared to a hierarchy mode. Therefore, the cheap labour and coordination costs offered at the offshoring destinations present offshoring as an economically sound business decision (Maskell et al. 2007; Maye & Salomon, 2006).

A study by the Offshoring Research Network, a joint venture between the Duke University Centre for International Business Education and Research (CIBER) and Archstone Consulting, found that 97% of the 104 small and large U.S. organizations surveyed designated cost reduction as the reason for offshoring (Levin & Peeters, 2006). Kakabadse and Kakabadse (2000) show that lower transaction costs encourage organizations to develop a value chain using networks and partners instead of getting involved in internal production.

There are other advantages which can accrue from offshoring. Organizations can benefit from geographically relocating their ownership advantages such as economies of scope and technological and organizational expertise (Roza, et al. 2011, Doh, 2005; Dunning, 1980). The relocation of these ownership advantages may significantly decrease labour costs and capital costs (i.e. location advantage) leading to an increase in performance level (Roza et al, 2011; Dunning, 1980).

While offshoring as a cost reduction approach provides significant advantages, there are also risks to this approach which might reverse the benefits gained. As offshoring increases, transaction costs are likely to increase due to hidden costs related to communication, set-up, and control, which might partly offset savings (Jensen & Pedersen, 2012; Roza et al., 2011; Stratman, 2008). Transaction costs may also increase due to the uncertainty and risks associated with the offshoring arrangements (Jensen & Pedersen, 2012; Roza et al. 2011; Coase, 1937; Williamson, 1975).

However, a cost-reduction strategy is more likely to be a short-term outsourcing approach, as competitors are able to replicate the strategy. Moreover, Kern, Willcocks, and Van Heck (2002) suggest that implementing offshoring with a focus purely on cost savings may attract irresponsible service providers who may not work towards the organization's objectives, or may attract service providers who are striving to reduce their own costs in order to win low bids (Sharma, Lyer & Raajpoot, 2009). Consequently, the success and effectiveness of offshore operations would suffer leading to negative influence on total performance improvement. Dess et al. (1995) and Bettis et al. (1992) discussed information technology (IT) outsourcing as a strategic decision and suggested that cost reduction alone is not sufficient, and will not enhance shareholder returns in the long term. When this relates to offshoring transactions, shareholders may not view offshoring positively if the offshoring decision is predicated on the cost savings aspect alone.

Therefore, we hypothesise that offshoring, as an approach focusing merely on cost reduction will negatively influence the relationship between the degree of offshoring and longer-term performance improvement.

Hypothesis 2a1: *offshoring as a cost-reduction approach negatively influences performance improvement for organizations offshoring high-value added tasks.*

Hypothesis 2a2: *offshoring as a cost-reduction approach negatively influences performance improvement for organizations offshoring standardized tasks.*

Hypothesis 3a1: *offshoring as a cost-reduction approach negatively moderates the relationship between the degree of offshoring of high value-added tasks and <u>performance improvement.</u>*

Hypothesis 3a2: *offshoring as a cost-reduction approach negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

2.2.2.2 Efficiency-enhancing strategy and performance improvement

Cost reduction, a traditional rationale for outsourcing and offshoring, is likely to be a short-term strategy, as competitors copy the strategy. The efficiency-enhancing strategy, which is based on a resource-seeking approach, is less imitable than a cost saving strategy. This argument stems from the work of researchers who, using the resource-based view, argue that sustainable competitive advantage must be based on resources, which are scarce or difficult to imitate (e.g. Wernerfelt, 1984, Barney, 1991, and Barney and Arikan, 2001). This argument will be followed to justify our efficiency-enhancing strategy rationale.

Outsourcing and offshoring from a resource-based perspective are both outcomes of the organization concentrating on its core activities and externalising non-core activities (Massini Ajchariyawong & Lewin, 2010; Quinn & Hilmer, 1994; Farrell, 2004, 2005; Holcomb & Hitt, 2007). This perspective follows the resource-based view that organizations should allocate their limited financial and human resources to activities that create competence advantages (Massini Ajchariyawong & Lewin, 2010; Barney, 1991). Offshoring offers many significant

strategic benefits in addition to cost reduction. (Bartell, 1998, Cooke et al. 2005, Corbett, 1996, Insinga & Werle, 2000, Kakabadse & Kakabadse, 2005, Leavy, 2004, Maltz & Sauter, 1995; Quinn & Hilmer, 1994).

The resource-based view (Barney, 1991; Penrose, 1959; Vivek et al. 2008) justifies the second rationale of offshoring. From the resource-based view, the availability of highly qualified personnel and resource capabilities at offshore locations drives offshoring (Roza et al., 2011; Lewin & Peeters, 2006b). Knowledge-seeking and efficiency-seeking are the two most important reasons to pursue international sourcing in information-intensive industries (Roza et al. 2011; Nachum & Zaheer, 2005). The resource benefits (personnel and technologies) that organizations pursue through offshoring enable organizations to perform the existing activities in a both cheaper and more efficient way (Roza et al., 2011).

Within this view, offshoring is a strategy to search distant locations (e.g. Lewin & Peeters, 2006b; Roza et al., 2011;Westhead, Wright & Ucbasaran, 2001) for the resources needed by an organization to maintain and improve its competitive position (Roza et al., 2011). This will lead to better longer-term competitive positioning (Quélin & Duhamel, 2003; Quinn & Hilmer, 1994) and long-term performance (Dou & Sarkis, 2010). Therefore, we assume that executing offshoring as an efficiency-enhancement strategy influences the relationship between the degree of offshoring and organization's performance improvement in the longer-term.

Hypothesis 2b1: *Offshoring as an efficiency-enhancing strategy positively influences performance improvement for organizations offshoring high value-added tasks.*

Hypothesis 2b2: *Offshoring as an efficiency-enhancing strategy positively influences performance improvement for organizations offshoring standardized tasks.*

Hypothesis 3b1: *Offshoring as an efficiency-enhancing strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

Hypothesis 3b2: *Offshoring as an efficiency-enhancing strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

2.2.2.3 Growth strategy and performance improvement

In addition to the first two theoretical explanations for offshoring strategies - cost-reduction and the efficiency-enhancing (Jensen & Pedersen, 2012; Contractor et al. 2010; Mudambi 2008; McCann & Mudambi 2005; Monczka et al. 2005; Irving et al. 2003) - there has been a recent growth rational for offshoring. Following the growth rationale, organizations are currently offshoring in order to gain a foothold in the global market.

Organizations that are not satisfied with following cost-reduction or efficiency-enhancing approaches are following a growth approach to move up the value chain by redesigning their products and service offerings (Jensen & Pedersen, 2012; Dossani & Kenney, 2007). These organizations are motivated to follow the growth approach in order to improve efficiency and increase the speed to market as well as to accommodate to expansion in transactions volume (Massini, Perm-Ajchariyawong & Lewin, 2010; Duo & Sarkis, 2010; Lewin, Massini & Peeters, 2009; Hutzschenreuter et al.,2007; Lewin & Couto, 2007; and Lewin and Peeters, 2006a).

Entrepreneurship theories of growth (Schumpeter, 1934; Davidsson, 1989; Baumol, 1993; Fiet, 2001; Phan, 2004) provide a third justification for moving beyond cost-reduction to the growth strategic choice (Roza et al., 2011; Baden-Fuller & Stopford, 1994; Mosakowski, 2002). Entrepreneurship is about identifying new opportunities and developing the resources needed to pursue these opportunities (Roza et al., 2011; Arthurs & Busenitz, 2006). Entrepreneurship also reveals the readiness of organizations to grow and expand their geographic boundaries (Davidsson, 1989) leading to sales growth. Thus, offshoring from an entrepreneurial aspect is a strategy for organizations to grow (Roza et al., 2011; Barringer & Greening, 1998). In line with Roza et al. (2011), McDougall and Oviatt, (2000) and Oviatt and McDougall, (2005) we argue that entrepreneurship growth theories provide another dimension to offshoring strategies. Therefore, we assume that executing offshoring as a growth strategy influences the relationship between the degree of offshoring and organization's performance improvement in the long-term.

Hypothesis 2c1: *Offshoring as a growth strategy positively influences performance improvement for organizations offshoring high value-added tasks.*
Hypothesis 2c2: *Offshoring as a growth strategy positively influences performance*

improvement for organizations offshoring standardized tasks.

Hypothesis 3c1: *Offshoring as a growth strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

H3c2: *Offshoring as a growth strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

2.3 Methodology and variables

2.3.1 Sample and Data collection

This study examines the effect of different offshoring strategies on performance improvement and the resulting moderating effect of such choice on the relationship between the degree of offshoring and organization's performance improvement. This study uses a primary source of data collected by conducting an online survey followed by a phone interview. The resulting preliminary questionnaire was cross-checked by three business professors with experience in offshoring research. Pilot tests were performed for instrument validity, with the assistance of 25 offshoring CEOs whose constructive feedback helped us to reframe ambiguous or inaccurate questions.

Furthermore, this survey was conducted as a part of the ORN (Offshoring Research Network) surveying of the offshoring practices of Australian-based organizations. Offshored functions captured in this survey include banking, finance and insurance, accounting, legal services, human resources, procurement, human resources, marketing, contact centres, other administrative back office services, research and development, product design and engineering services and software development. The participating organizations represent small to medium-sized organizations (0- 200 employees).

Five steps were followed for sample selection and data collection. The first step consisted of the selection of a random sample of Australian small- to medium-sized organizations in the manufacturing and service sectors. The second step consisted of conducting an online survey instrument hosted on Survey Monkey. The third step was to conduct twenty to thirty minute interviews with the managers responsible for decisions related to offshoring or international activities in each of the selected organizations. In the interview, the nature of the research project was disclosed to the interviewees. To protect the confidentiality of the information, neither the name of the interviewee nor those of the organizations were disclosed to anyone

other than the authors of this study. Finally, in order to increase the number of responses, another round of data collection was conducted. At the end of the process, 201 completed surveys were retained for statistical analysis, of which 77 were from organizations currently offshoring. Figure 2.2 displays the sample demographics and breakdown by industry sector. The two industries most represented are banking, financial services and insurance (29%), infrastructure (23%) and professional services (16%)). The sample is heavily biased towards small- to medium-sized organizations of number of employees (50-200). Table 2.1 displays the three strategies implemented by the examined offshoring organizations (Cost-reduction, efficiency-enhancing strategy and growth strategy) according to their international experience.

Figure 2-2: Sample breakdown by industry sectors
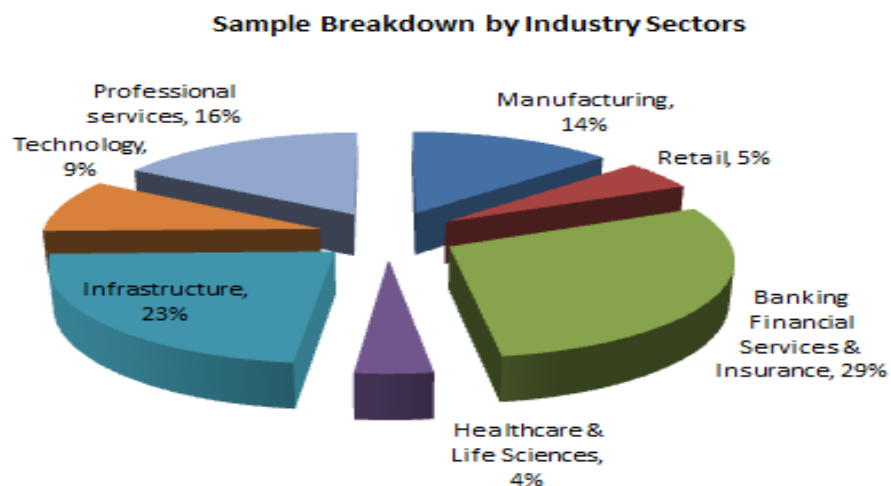
Table 2-1: Sample breakdown by offshoring strategy and international experience

		Offshoring Strategies			Offshoring Total	% Offshoring
		Cost-reduction Strategy	Efficiency- enhancing Strategy	Growth and globalisation Strategy		
International Experience	< 5 years	14	10	0	24	31%
	= 5 years	7	4	3	14	18%
	> 5 years	10	11	18	39	51%
Offshoring Total		31	25	21	77	100%
% Offshoring		40%	32%	27%	100%	

2.3.2 Variables and measures

2.3.2.1 Dependent variable:

Financial performance

A long-term orientation is used to measure offshoring performance in this study by asking the respondents to report on the offshoring performance outcomes over a period of six years. This allows the researcher better understand the evolution of the indicators. As Aulakh and his colleagues (2000) state, the diverse measure of foreign performance has led to inconsistent and contradictory findings in foreign activity and performance linkages. Therefore, in order to gain results that are more accurate and minimise the possible weaknesses associated with the use of a single performance measure, this study employs a multi-aspect approach to measuring performance. Three dimensions of offshoring performance measures are used: (1) net operating income, (2) cost of goods sold as a percentage of sales, and (3) shareholder's value growth rate. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

For calculating performance improvement, this research used the concept of the "research window" (Smith et al. 1998). For each organization the offshoring announcement or implementation year was identified and was designated (Year 0). Values of performance were tabulated for six years for each organization from one year pre-offshoring (Year -1) to five years post-offshoring (Year +5). The change in performance was calculated as:

∆Performance = (Value)j – (Value)i , where i = Year -1 and j = Year +5

Similar approaches for measuring change in performance have been applied to previous studies (e.g. Srivastava et al. 2008 and, Smith et al. 1998).

2.3.2.2 Independent variables

2.3.2.2.1 The degree of offshoring

For our research, the independent variable is the *degree of offshoring*. We define the degree of offshoring as the amount of production or service that has been transferred by the organization from its parent country to a foreign destination. To operationalise the degree of offshoring (DEG OFF), we use three components: *the number of jobs offshored as a percentage of total jobs,* the *number of tasks offshored as a percentage of total tasks and the number of offshoring implementations as a percentage of total implementations*. A factor analysis was conducted which showed that the measures for each construct are highly correlated.

The different functions, which are offshored, were categorised according to the division of Cantwell et al. (2010). Functions were divided between (1) banking, finance, insurance and accounting, human resources (HR), marketing and sales, information technology (IT), call centre, procurement, logistic services and (2) engineering, research & development (R&D) and product design. (Please refer to Table 2.12 for variable construction and measurement and refer to appendices for questionnaire questions in relation to variables.)

As we have previously discussed it is important to analyse offshoring activities using a disaggregated view focusing on the task- level (Jensen & Pedersen, 2012). Therefore, we divided degrees of offshoring into: (1) degree of offshoring *high value-added tasks and (2) standardized tasks*. Whereas the former focuses on more complex, innovative and qualified tasks which, the offshoring organization may not have the possibility to perform in the home country. The later focuses on simple, standard and routine office work and services with the lowest entry barriers in terms of skills, scale and technology.

2.3.2.2.2 Offshoring strategy

In line with Manning, Massini, Peeters and Lewin (2012) and Roza, van den Bosch and Volberda (2011), this research study categorises offshoring strategies into the following three main categories:

1. Cost-reduction strategy: The cost reduction category includes organizations offshore

their activities primarily to reduce costs (i.e. cost of sales, labour cost and other costs) at their domestic location.

2. Efficiency-enhancing strategy: The efficiency-enhancing strategy category includes organizations that offshore their activities primarily in the search for knowledge and access to new resources (i.e. talent and technology), hoping to enhance innovation (product and process redesign) in addition to improving flexibility, quality and ultimately service level.

3. Growth and globalisation strategy: The growth category includes organizations that offshore their activities primarily to increase the speed to market, to access new markets and to explore and stretch the boundaries of the organization as a part of an overall global strategy.

In order to measure the three different strategies used for offshoring, nine offshoring strategic drivers derived from our survey were measured using a 5-point Likert scale (see Table 2.12). The corresponding questions in the survey ask to what extent respondents regard particular drivers (cost savings, efficiency-enhancing, and growth) to be important in their decision to offshore a particular function.

The cost-reduction strategy was measured by two variables: the importance of labor cost savings and the importance of other costs as drivers for offshoring. The efficiency-enhancing strategy was measured by three variables: importance of gaining access to qualified personnel, importance of business process redesign and importance of improving service levels as strategic drivers for the local offshore implementation. In a similar way, the growth /globalization strategy was measured by four variables: importance of access to new market, importance of increasing speed to market, importance of differentiation strategy, and importance of offshoring as a part of global strategy as strategic drivers for the local offshore implementation.

An exploratory factor analysis was conducted to statistically support the three theoretically defined offshoring strategies. The analysis supports the three categories of offshoring strategic drivers, i.e. costs, efficiency and growth (all items loaded on their appropriate factors greater than 0.7, eigenvalues for each factor were greater than 1).

2.3.2.3 Control variables

2.3.2.3.1 International experience

In the International Business literature, research on internationalisation has long focused on questions of experience in international location and governance modes choice (Gooris & Peeters, 2012). Hahn et al., (2009) concluded that both organization-specific and industry-wide learning and experience prompts organizations to explore increasingly distant and challenging markets. Organizations having a greater international experience should logically offshore more (Gooris & Peeters, 2012; Jensen, 2009). To measure international experience (INT EXP), we used the total number of years (Gooris & Peeters, 2012; Jensen, 2009) that the organization has been systemically involved in international engagements to differentiate between sporadic (infrequent) experience and regular experience.

2.3.2.3.2 Organization age

Organization age has contradictory effects on the offshoring decision. Younger organizations have more flexibility to explore new ventures outside their boundaries than older organizations (Zahra, 1991) since they enjoy less inertia and sunk costs in ongoing operations. However, older organizations are more likely to have more experience gained from learning over time (Pelegrín & Bolancé, 2011) and a wider network of relationships with organizations inside and outside their industry boundaries, which can facilitate the offshoring process. Hence, we control for organization age (AGE) using the natural logarithm of the number of years an organization has been in existence (Mihalache et al. 2012).

 2.3.2.3.3 Organization size

Massini, Perm-Ajchariyawong & Lewin, (2010) argue that, "larger companies are more likely to achieve economies of scale and possess contractual/monopsonistic power compared to smaller firms" (p.350). Offshoring is more closely related to labour and employees, as the common rationale for offshoring is to derive labour cost arbitrage. Therefore, to account for the fact that offshoring may have a different effect according to organizational size this study measures the variable (SIZE) by taking the natural logarithm of number of employees working for the respective organization in home country. Logarithmic transformation was

used because makes the distribution of data closer to normality and easier to interpret. This measure can be criticised, as it does not account for trends towards temporary employment and employees at outsourcers for the organization. However, it is still an indicator of the resource base under the ownership and control of the organization. In addition, it shows to what extent an organization uses overhead, implying the need for administrative efficiency in order to reduce costs (e.g. Lewin & Couto, 2007).

2.3.3.3.4 Industry sector

To control for the fact that offshoring may have a different effect according to which industry sector is selected, we divided organizations into five sectors based on the North American Industry Classification System (NAICS) and created a dummy (e.g. Contractor et al 2007; Chiao & Li 2009) for each sector: manufacturing and industrial, wholesale and retail trade, services, banking and finance and real estate and information. These five sectors comprehensively cover almost all the manufacturing and service industries in Australia. Such industry controls have been used in past outsourcing/offshoring studies such as Brynjolfsson et al. (1994) and Whitaker et al. (2005). See Table 2.2 for details.

Table 2-2: Industry sectors as a control variable

Code	Dummy	Industry
4	MANUF	Manufacturing, engineering and industrial
12	BFSI	Banking and financial services
8	RETAIL	Whole sale/retail
16,18,19	SERVICES	Professional, technology, health
21	OTHER	Real estate and information

Due to sample size restrictions, in this study organizations in different industries were further combined into two groups: services (i.e. banking and financial services, whole sale/retail, professional technology and health and real estate and information) and manufacturing (i.e. manufacturing, engineering and industrial). This research used a dummy variable (IND_SERV) to distinguish the two groups: 1 for offshoring services, 0 for offshoring manufacturing.

2.3.3.3.5 Offshoring governance mode

In this research paper, we control for two types of offshoring governance modes: (1) a captive and (2) a third party offshoring mode (Couto et al. 2006; Manning et al. 2008; UNCTAD, 2004). The captive mode can include a wholly-owned subsidary or a joint-venture. The non-captive mode can include an international, a local offshore third party, or the use of the build-operate-transfer option. This research uses a dummy variable=1 for captive mode (CPT) (i.e. wholly-owned subsidiaries and joint ventures) and 0 for third party offshoring (NCPT) (local and international third party and build-operate transfer).

2.3.3 Analysis method

To test for the effect of the three different identified offshoring strategies, four different conceptual models were created and tested using Partial Least Squares Structural Equation Modelling (PLS) using WrapPLS 3.0 software (Kock, 2012).

- Model 1 empirically examined the effect of the *degree of offshoring of high value-added tasks* on *performance improvement*;

  H1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement;*

- Model 2 empirically examined the effect of the *degree of offshoring of standardized tasks* on *performance improvement*;

  H1b: *The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement.*

- Model 3 empirically examined the direct effect of the *cost-reduction strategy* on performance improvement, in addition to the moderating effect of the cost-reduction strategy on the relationship between the degree of offshoring *of high value-added tasks* and performance improvement;

  H2a1: *offshoring as a cost-reduction approach negatively influences performance improvement.*

H3a1: *offshoring as a cost-reduction approach negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

- Model 4 empirically examined the direct effect of the *efficiency-enhancing* strategy on performance improvement, in addition to the moderating effect of the efficiency-enhancing strategy on the relationship between the degree of offshoring of *high value-added tasks* and performance improvement;

H2b1: *Offshoring as an efficiency-enhancing strategy positively influences performance improvement.*

H3b1: *Offshoring as an efficiency-enhancing strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

- Model 5 empirically examined the direct effect of the *growth strategy* on performance improvement, in addition to the moderating effect of the growth strategy on the relationship between the degree of offshoring of *high value-added tasks* and performance improvement;

H2c1: *Offshoring as a growth strategy positively influences performance improvement.*

H3c1: *Offshoring as a growth strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

- Model 6 empirically examined the direct effect of the *cost-reduction strategy* on performance improvement, in addition to the moderating effect of the *cost-reduction* strategy on the relationship between the degree of offshoring *of standardized tasks* and performance improvement;

H2a2: *offshoring as a cost-reduction approach negatively influences performance improvement.*

H3a2: *offshoring as a cost-reduction approach negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

- Model 7 empirically examined the direct effect of the *efficiency-enhancing* strategy on performance improvement, in addition to the moderating effect of the *efficiency-*

enhancing strategy on the relationship between the degree of offshoring *of standardized tasks* and performance improvement;

H2b2: *Offshoring as an efficiency-enhancing strategy positively influences performance improvement.*

H3b2: *Offshoring as an efficiency-enhancing strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

- Model 8 empirically examined the direct effect of the *growth strategy* on performance improvement, in addition to the moderating effect of the *growth* strategy on the relationship between the degree of offshoring *of standardized tasks* and performance improvement;

H2c2: *Offshoring as a growth strategy positively influences performance improvement.*

H3c2: *Offshoring as a growth strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

2.3.3.1 Structural equation modelling

Partial Least Squares Structural Equation Modelling (PLS) was used in this study as a regression and path model. Partial Least Squares (PLS) is a component-based structural equation modeling technique that has particular advantages over covariance modeling (Slotegraaf & Dickinson 2004). PLS is a variance based technique, which can deal well with issues of formative versus reflective measures and moderating effects and can include categorical variables. PLS is not constrained by identification issues, even in complex models (Hair, Sarstedt, Ringle & Mena 2012). Maximization of variance explained (or R^2 values), in all dependent variables is the primary objective of PLS (Hulland 1999).

The software used for data analysis is WarpPLS 3.0 software (Kock, 2012). WarpPLS is SEM software that conducts structural equation modelling using a partial least squares regression algorithm. WarpPLS was also used for validating the measurements, and testing support for the hypotheses of interest. This software is different from other SEM software in that it is able

to identify nonlinear relationships among the latent variables of the model. A jack- knifing sampling technique (Quenouille, 1949; Tukey, 1958) was used for this study, which deals well with outliers and small sample sizes (Chiquoine & Hjalmarsson, 2009; Osborne, 2008).

2.3.3.2 Moderation effect

Moderation's main importance comes in to play in research on individual differences or situational conditions that influence the strength of the relationship between a predictor and an outcome, such as studies showing that the effects of life events on illness depend on personality (S. Cohen & Edwards, 1989; Taylor & Aspinwall, 1996). In the context of this study we examine how the differences in offshoring strategies (i.e. cost-reduction, efficiency-enhancing and growth) (moderator) influence the strength of the relationship between the degree of offshoring (predictor) and performance improvement (outcome).

2.4 Analysis and Results

2.4.1 Descriptive statistics

Multicollinearity occurs when correlations between constructs are very high. When multicollinearity is present it means that the variables which are supposed to measure different variables are actually measuring the same variable (Kline, 2009). Serious multicollinearity problems may lead to deviation in the estimation of the relationship between the dependent and independent variables (Stevens, 2002; Tebachnick & Fidell, 2001). Tables 2.5 to 2.12, in appendices, show that all correlations among latent variables are below 0.80, signifying no serious problem of multicollinearity in our data (Gujarati, 2003). However, to be confident, we tested for multicollinearity among the independent variables by examining the Variance Inflation Factor (VIF) for the four tested models, the results for which are also given in Tables 2.5 to 2.12 (please refer to appendices).

VIF measures the effect of collinearity among the predictors in the model on the precision of estimation. In other words, it expresses the degree to which collinearity among the predictors degrades the precision of linearity, this is not a significant problem if the value of VIF is

below 10 (Allison, 1999; Belsley, Kuh & Welsch, 1980; Stevens, 2002). In our case, the VIF values for all the independent variables are below five (Pedhazur, 1997), which is the conservative limiting for multicollinearity. Hence, we conclude that there is no significant problem of multicollinearity among the independent variables in our study.

2.4.2 Validity

Tables 2.5 to 2.12 show latent variable correlations, and the P values associated with those correlations. On the diagonal of the latent variable correlations table are the square roots of the average variances extracted (AVE) for each latent variable. These results are used for the assessment of the measurement instrument's discriminate validity. The square roots of the average variances extracted (AVE) are shown on the diagonal, to demonstrate that their measurement instrument passes widely accepted criteria for discriminate validity assessment. The following criterion is applied in this study for discriminate validity assessment: for each latent variable, the square root of the average variance extracted should be higher than any of the correlations involving that latent variable (Fornell & Larcker, 1981). That is, the values on the diagonal should be higher than any of the values above or below them, in the same column. As can be seen in tables 2.5 to 2.12 (please refer to appendices) the individual square roots of the AVEs are higher than any of the correlations shown below them. Therefore, it can be assumed that these constructs in the four tested models exhibit discriminate validity.

Combined loadings and cross-loadings are provided in tables 2.13 to 2.20 for the four respectively tested models (please refer to appendices). Each cell refers to an indicator-latent variable. Latent variable names are listed at the top of each column, and indicator names at the beginning of each row. In this table, the loadings are from a structure matrix (i.e. unrotated), and the cross-loadings from a pattern matrix (i.e. rotated). Since loadings are from a structure matrix, and unrotated, they are always within the -1 to 1 range. This obviates the need for a normalisation procedure to avoid the presence of loadings whose absolute values are greater than one. The expectation here is that loadings will be high; and cross-loadings will be low, which has been the case in our table. P values are also provided as validation parameters of a confirmatory factor analysis. The table of combined loadings and cross-loadings has been used in this study to describe the convergent validity of our measurement instrument. In this respect, two criteria were used as the basis for concluding that a

measurement model has acceptable convergent validity: that the P values associated with the loadings be lower than .05; and that the loadings be equal to or greater than .5 (Hair et al. 1987). Indicators for which these criteria are not satisfied were removed.

2.4.3 Reliability

Reliability concerns the degree to which the scores are free from random measurement error (Kline, 2005, p. 58). Reliability coefficients are typically considered excellent at 0.90, very good at 0.80, and adequate at 0.70 (Nunnally, 1978).The minimum reliability for most studies is 0.70. The higher liability coefficients are; the less variance present due to random error. Negative reliability coefficients are taken as zero coefficients; however, when they are present, they may imply problems with the variables (Kline, 2005, 2009). In this study two measures of reliability are provided: composite reliability (CRC) and Cronbach's alpha coefficients. The latter is the measure of reliability most commonly used in studies (Nunnally, 1994).These coefficients are a measure of an instrument's internal consistency and measure the instrument's quality. Tables 2.5 to 2.12, in appendices, show the composite reliability and Cronbach's alpha coefficients for tested sample in the four models. Both of these coefficients are above the 0.7 recommended thresholds, meaning the instrument used has adequate reliability (Nunnally, 1978).

2.4.4 Model fit

Three model fit indices are provided: average path coefficient (APC); average R-squared (ARS); and average variance inflation factor (VIF). For the APC and ARS, P values are also provided. When assessing the model fit with the data, the following criteria are recommended. First, it is recommended that the P values for the APC and ARS are both lower than .05 (Kock, 2011); that is, significant at the .05 level. Second, it is recommended that the AVIF be lower than 5 (Kock, 2011). Table 2.3 shows the model fit indices and p-values of the eight tested models. We can see that all our models' APC, ARS, AVIF and their p-values meet the recommended criteria.

2.4.5 Result significance

Figures 2.3 to 2.10 show eight models created in WarpPLS 3.0 to test our hypotheses. First, we tested the direct effect of the degree of offshoring of high value-added tasks versus standardized tasks on performance improvement. Second, we tested the direct effect of three offshoring strategies: (1) cost-reduction approach (COST); (2) efficiency-enhancing (EFFICEN); and (3) growth strategy (GRTH) on performance improvement. Third, we tested the moderating effect of these three strategies on the relationship between the degree of offshoring of high value-added tasks (DEG HVA) and performance (PERF) and on the relationship of the degree of offshoring of standardized tasks (DEG STD) and performance (PERF).

2.4.5.1 The direct effect of the degree of offshoring on performance improvement

Using WarpPLS 3.0, the direct effect of the degree of offshoring on the organization's performance improvement was tested. Models 1 and 2 tested our hypotheses about the effect of high value-added and standardized tasks respectively on performance improvement. The results confirmed the significant direct effect of the degree of offshoring on performance improvement. The results in table 2.3 and figure 2.3 show strong support for Hypothesis H1a ($\beta=+0.26**$, $R^2=0.32$), confirming that the degree of offshoring of high value-added tasks has a significant positive effect on organizational performance, regardless of control variables. Contrary to Hypothesis H1b the results in table 2.3 and figure 2.4 also showed a significant direct effect of the degree offshoring of standardized tasks on organizational performance ($\beta=+0.22**$, $R^2=0.28$).

Figure 2-3: Model 1- offshoring of high value-added tasks and performance improvement
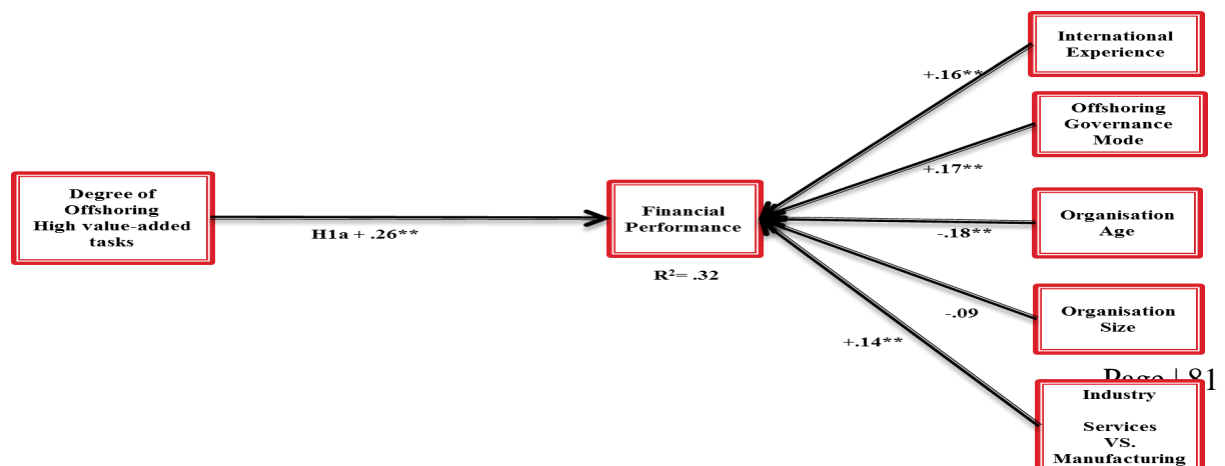
Figure 2-4: Model 2- offshoring of standardized tasks and performance improvement
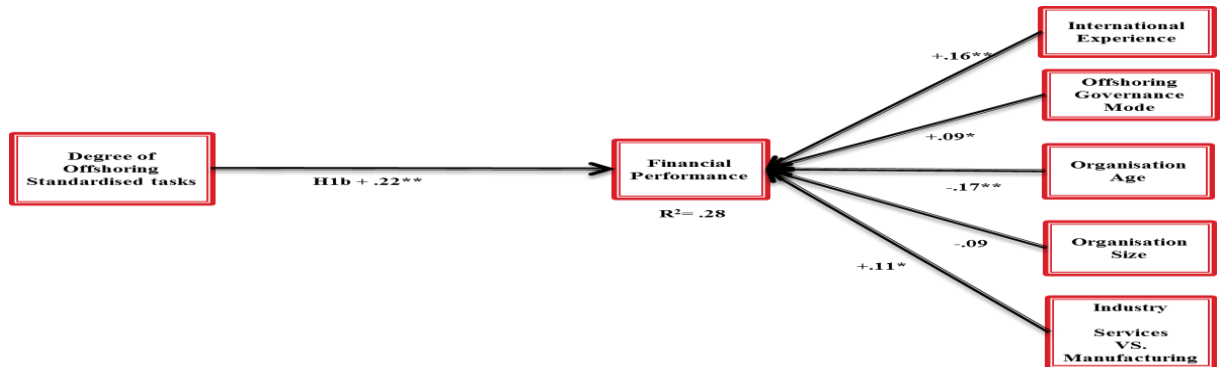
2.4.5.2 Assessing the direct effect of strategy choice on performance improvement

As shown in Table 2.3 and figure 2.5 for high value-added tasks, there is a support for H2a1: offshoring as a *cost-reduction* approach negatively influences performance improvement (cost-reduction → performance improvement, β=-0.22**). The results from figure 2.6 support H2b1: Offshoring as an *efficiency-enhancing* strategy positively influences performance improvement (efficiency-enhancing strategy → performance improvement, β=+0.19**). In addition, the results from figure 2.7 support H2c1: Offshoring as a *growth strategy* positively influences performance improvement (growth strategy → performance improvement, β=+0.11*) only at 10% level. However the results for standardized tasks in table 2.3 for figure 2.8 contradict our hypothesis H2a2 and shows that offshoring as a *cost-reduction* approach positively influences performance improvement (cost-reduction → performance improvement, β=+0.26**). The results for figure 2.9 support H2b2: Offshoring as an *efficiency-enhancing* strategy positively influences performance improvement (efficiency-enhancing strategy → performance improvement, β=+0.14**). However, the results from figure 2.10 show no support for H2c2: Offshoring as a *growth strategy* positively influences performance improvement (growth strategy → performance improvement, β=+.06)

Thus, we can conclude that adopting offshoring as a cost-reduction-strategy has a direct negative influence on long-term performance improvement for high value-added tasks and a positive direct effect for standardized tasks. On the other hand, adopting offshoring as an efficiency-enhancing strategy has a direct positive effect on long-term performance improvement for both high value-added tasks and standardized tasks. In addition, adopting offshoring as a growth strategy has a minor direct positive effect on long-term performance

improvement for high value-added tasks and has no effect for standardized tasks. It could be that more time than five years is needed for the growth strategy effect on performance improvement for high value-added tasks to eventuate, and the period of this study is six years.

Figure 2-5: Model 3- offshoring of high value-added tasks, cost-reduction strategy and performance improvement
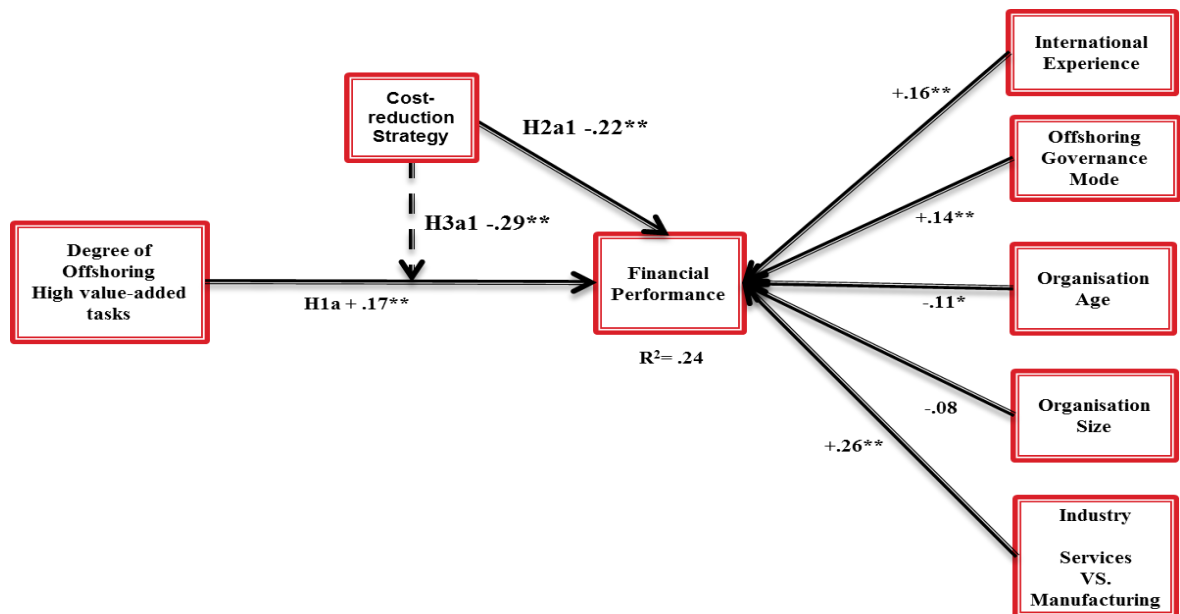
Figure 2-6: Model 4- offshoring of high value-added tasks, efficiency-enhancing strategy and performance improvement
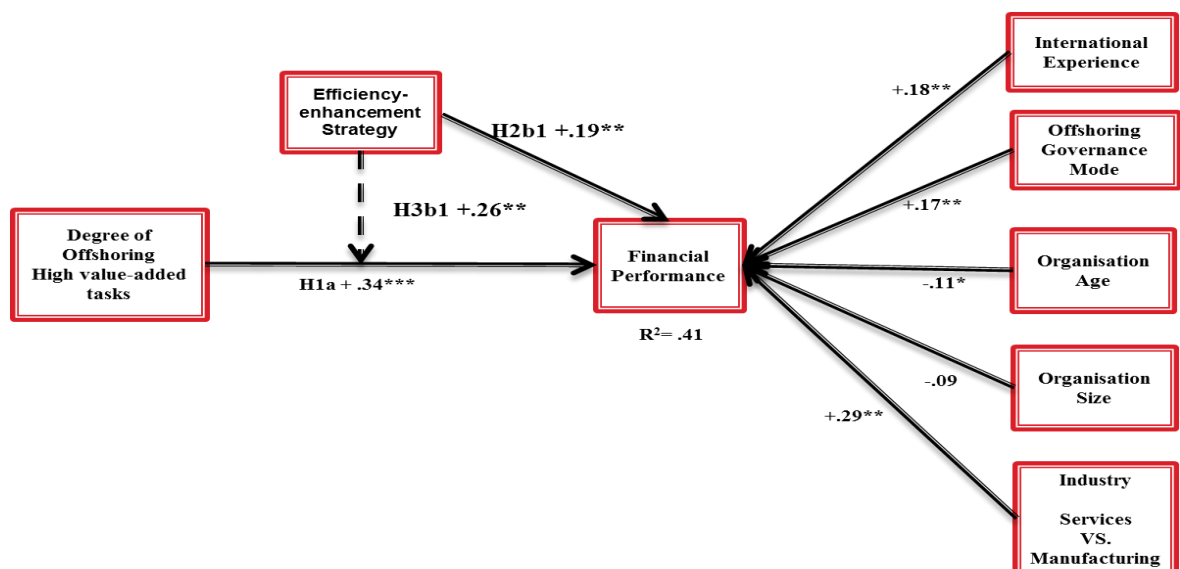
Figure 2-7: Model 5- offshoring of high value-added tasks, growth strategy and performance improvement
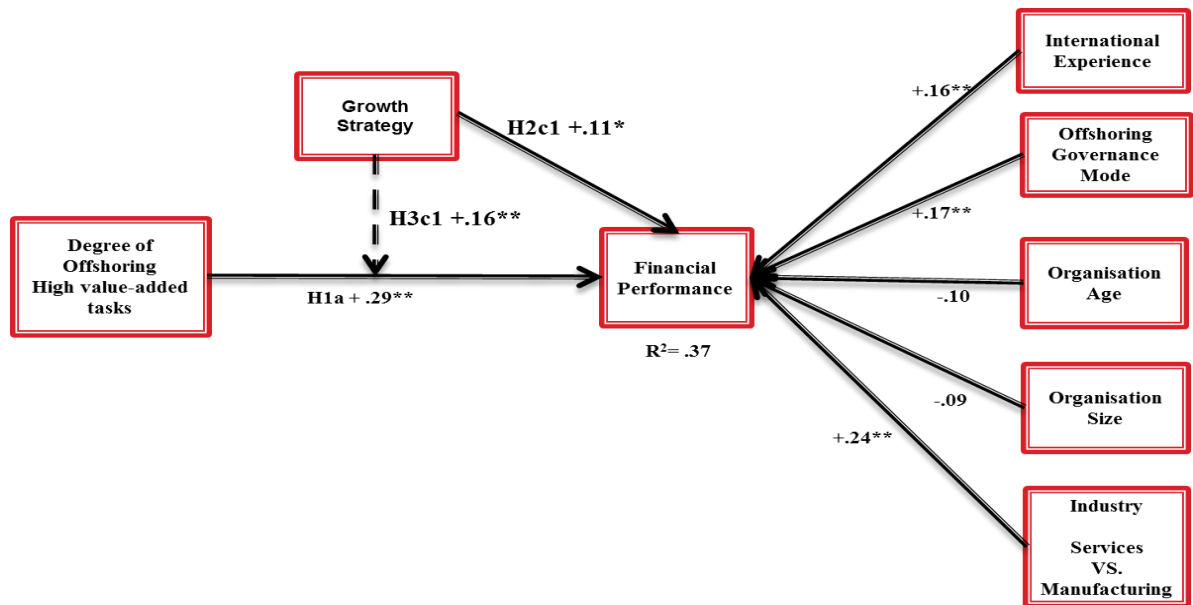
Figure 2-8: Model 6: offshoring of standardized tasks, cost-reduction strategy and performance improvement
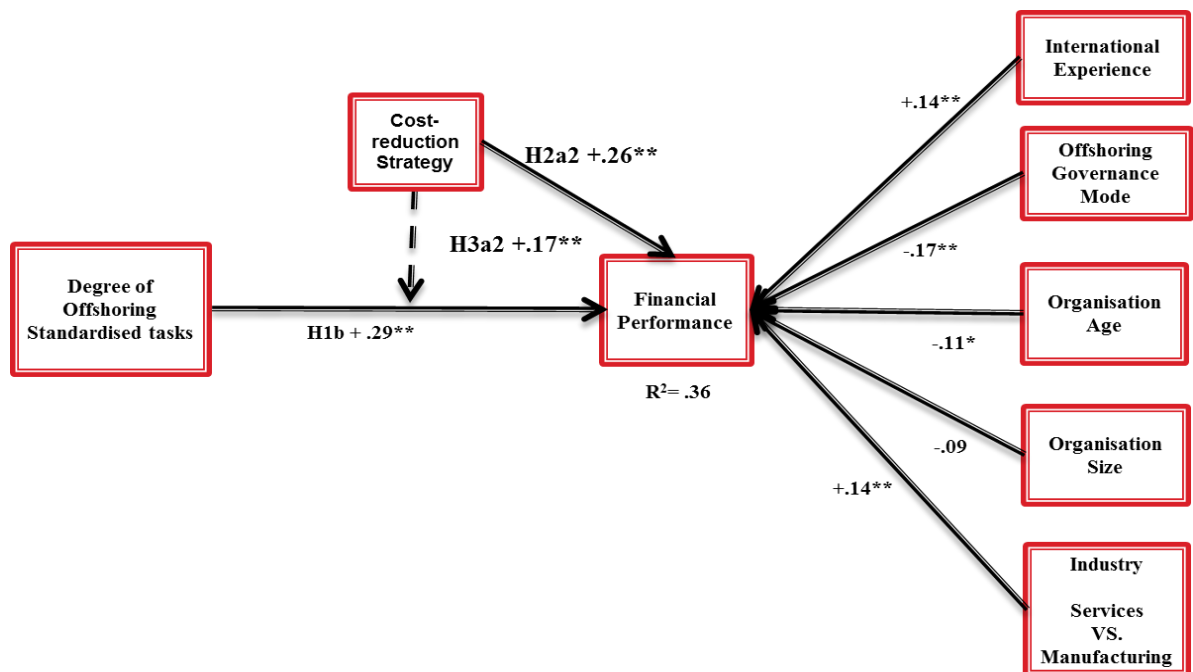
Figure 2-9: Model 7- offshoring of standardized tasks, efficiency-enhancing strategy and performance improvement
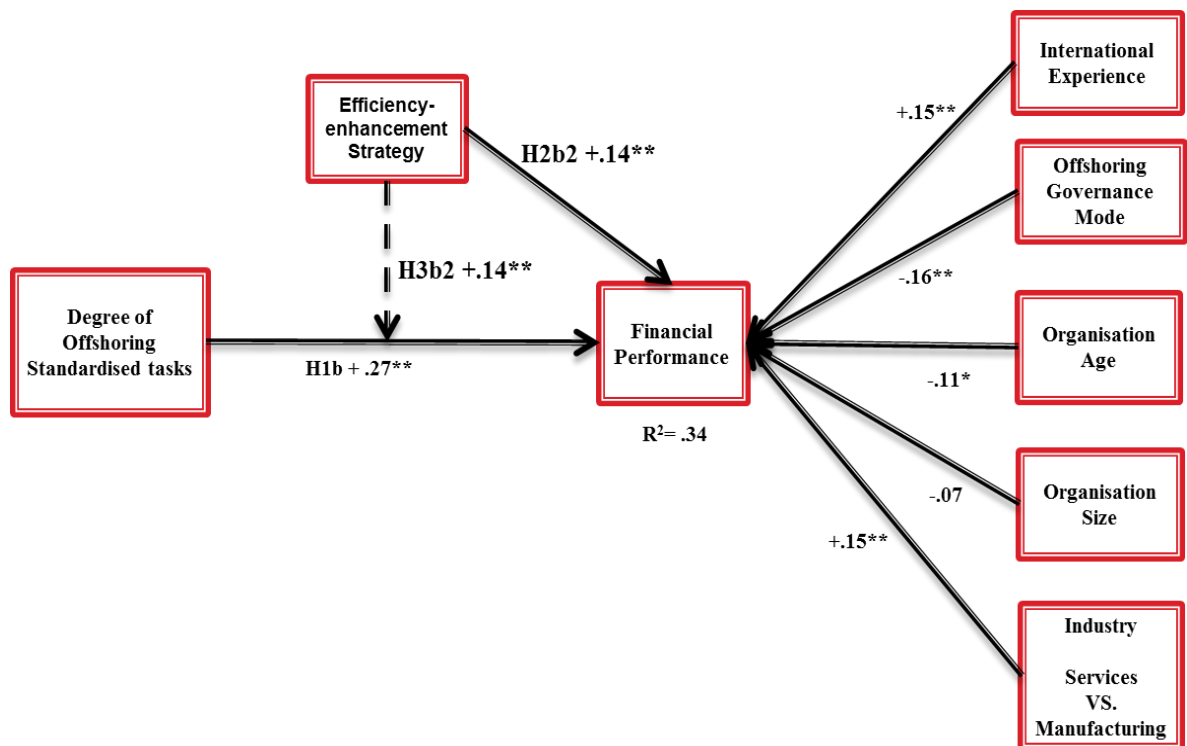
Figure 2-10: Model 8- offshoring of standardized tasks, growth strategy and performance improvement
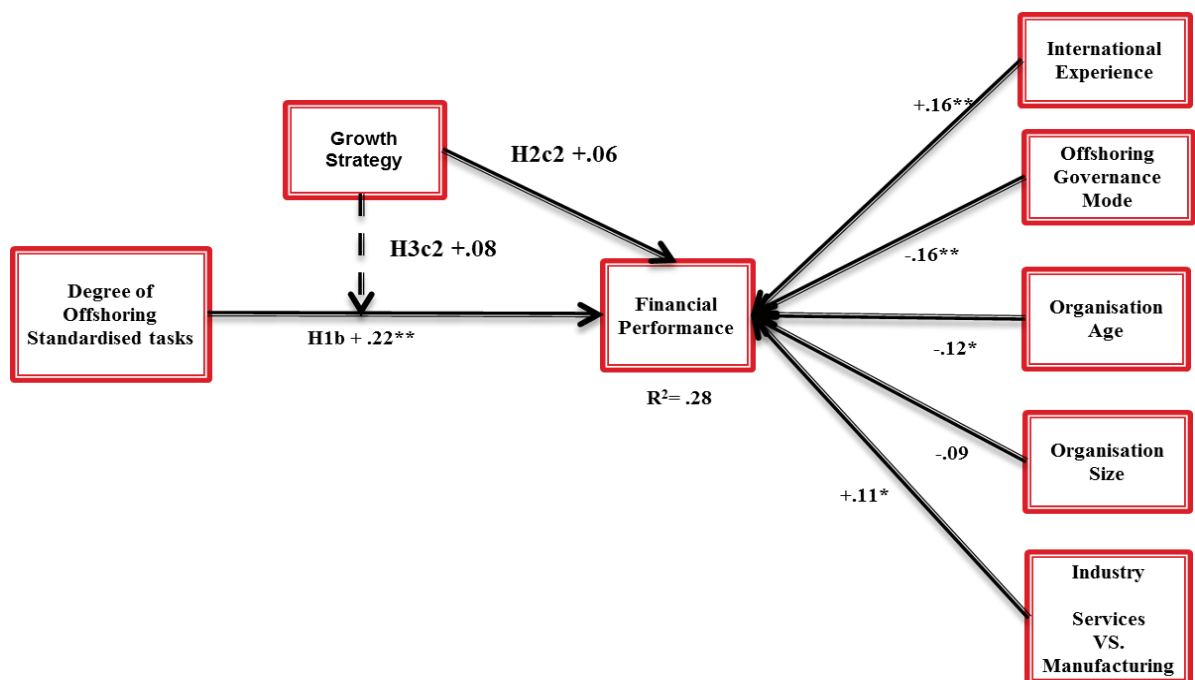
2.4.5.3 Assessing the moderating effect of strategy choice on the relationship between the degree of offshoring and performance improvement

As a first step, we tested the relationship between the degree of offshoring of both *high value-added tasks* and *standardized tasks* and performance improvement. In the second step, we introduced the moderator strategy variables (i.e. cost-reduction, efficiency-enhancing and growth) into the relationship between the degree offshoring of high value-added tasks and performance improvement (Model 3, 4 and 5) then into the relationship between the degree offshoring of standardized tasks and performance improvement (Model 6, 7 and 8).

Table 2.3 and figures 2.5, 2.6 and 2.7 show respectively the moderation results for the three models: cost-reduction strategy model 3, efficiency-enhancing strategy model 4 and growth strategy model 5. In the first model, H3a1 was tested and empirically supported. That is the moderating effect of cost-reduction offshoring strategy (COST) on the relationship between the degree of offshoring of high value-added tasks (DEG HVA) and performance (PERF) is negatively significant (β=-0.29**). In step 2 after introducing (COST), the path coefficient β between (DEG HVA) and (PERF) decreased by 0.09 (0.17-0.26) and R^2 value decreased from 0.32 to 0.24. This is an indicator of the size of the moderator cost-reduction negative effect on performance improvement. This means that the path coefficient associated with the arrow that points from (DEG HVA) to (PERF) is decreased by 0.09 due to the negative moderation influence of cost-reduction as an offshoring strategy.

In the second model, H3b1 was tested and empirically supported. That is the moderating effect of efficiency-enhancing offshoring strategy (EFFICEN) on the relationship between (DEG HVA) and (PERF) is positively significant (β=+0.26**). In step 2 after introducing (EFFICEN), the path coefficient β between (DEG HVA) and (PERF) increased by 0.08 (0.34-0.26) and R^2 value increased from 0.32 to 0.41.

In addition, in the third model as well H3c1 was empirically tested and supported. That is, the moderating effect of growth offshoring strategy (GRTH) on the relationship between the (DEG HVA) and (PERF) is positively significant (β=+0.16**). In step 2, after introducing (GRTH) as a moderator, the path coefficient β between (DEG HVA) and (PERF) slightly increased by 0.03 (0.29-0.26) and R^2 value increased from 0.32 to 0.37.

However, the introduction of the three offshoring strategies (cost-reduction, efficiency-enhancing and growth) into the relationship between the degree offshoring of standardized tasks (DEG STD) and performance improvement (PERF), as shown in figures 2.8 (model 6), 2.9 (model 7) and 2.10 (model8), revealed support for H3b2 but no support for H3a2 and H3c2.

As show in figure 2.8, after introducing (COST), the path coefficient β between (DEG STD) and (PERF) increased by 0.07 (0.29-0.22) and R^2 value increased from 0.28 to 0.36. This contradicts our hypothesis that a cost-reduction strategy has a negative moderating effect. This also means that implementing offshoring as a cost-reduction approach when offshoring standardized tasks has a positive effect on performance improvement.

In model 7, figure 2.9, H3b2 was tested and empirically supported. That is, the moderating effect of efficiency-enhancing offshoring strategy (EFFICEN) on the relationship between (DEG STD) and (PERF) is positively significant (β=+0.14**). In step 2, after introducing (EFFICEN), the path coefficient β between (DEG HVA) and (PERF) increased by 0.05 (0.37-0.22) and R^2 value increased from 0.28 to 0.34. This means that implementing offshoring as an efficiency-enhancing approach when offshoring standardized tasks has a positive effect on performance improvement.

Finally, in model 8, figure 2.10 H3c2 was empirically tested but not supported. That is, the moderating effect of growth offshoring strategy (GRTH) on the relationship between the (DEG STD) and (PERF) is not significant (β=+0.08). Table 2.3 and figure 2.10 shows that after introducing (GRTH) as a moderator, the path coefficient β and R2 value between (DEG HVA) and (PERF) did change, thus no moderating effect has been confirmed.

In summary, the relationship between the degree of offshoring of *high value-added tasks* and *performance improvement* was weakened when implementing offshoring as a cost-reduction strategy and was strengthened when implementing offshoring as efficiency-enhancing and growth strategies. On the other hand, the relationship between the degree of offshoring of *standardized tasks* and *performance improvement* was strengthened when implementing offshoring as a cost-reduction strategy and as an efficiency-enhancing strategy. However, the relationship between the degree of offshoring and performance was significant before introducing the moderator variables of strategies. Therefore, we can conclude that

implementation of the three tested strategies has a partial moderating effect.

2.4.5.4 The effect of control variables

This study controlled for the effects of International experience (INT EXP), offshoring governance mode (GOVMOD) (i.e. captive versus third party), organization age (AGE) (i.e. natural logarithm of number of years in existence), organization size (SIZE) (i.e. natural logarithm of full-time equivalent number of employees) and industry (INDUST) (i.e. services versus manufacturing). As shown in the tested models and in table 2.3 (INTEXP), and (INDUST) were positively significant in all models. However, the captive governance mode (GOVMOD) was positively significant with offshoring high value-added tasks and was negatively significant was offshoring standardized tasks. In addition, (SIZE) was not significant in all models and (AGE) was only significant at 10% level.

Thus, we can conclude organizations in the service industry with more international experience are more likely to enjoy better offshoring performance. In addition, using captive governance mode when offshoring high value-added tasks is more likely to enhance offshoring performance. However, using third party governance mode when offshoring standardized tasks is more likely lead to better offshoring performance.

Table 2-3: Summary of PLS results – 5 years after offshoring announcement

Hypothesised Path	*Financial performance*	*Support for Hypothesis*
Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement* **Higher degree of offshoring HVA→ Higher performance**	+ .26**	H1a (+)supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement* **Higher degree of offshoring STD ≠ Higher performance**	+ .22**	H1b (-) not supported
Hypothesis 2a1: *Cost- reduction strategy negatively influences performance improvement for organizations offshoring high-value-added tasks.* **Cost-reduction strategy → Lower performance**	- .22**	H2a1 (-) supported
Hypothesis 2a2: *Cost- reduction strategy negatively influences performance improvement for organizations offshoring standardized tasks.* **Cost-reduction strategy → Lower performance**	+ .26**	H2a2 (-) not supported
Hypothesis 3a1: *Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement* **Degree of offshoring HVA x cost-reduction → Lower performance**	- .29**	H3a1 (-) supported
Hypothesis 3a2: *Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement* **Degree of offshoring STD x cost-reduction → Lower performance**	+ .17**	H3a2 (-) not supported
Hypothesis 2b1: *Efficiency enhancing strategy positively influences performance improvement for organizations offshoring high-value-added tasks.* **Efficiency-enhancing strategy → Higher performance**	+ .19**	H2b1 (+) supported
Hypothesis 2b2: *Efficiency enhancing strategy positively influences performance improvement for organizations offshoring standardized tasks.* **Efficiency-enhancing strategy → Higher performance**	+ .14**	H2b2 (+) supported
Hypothesis 3b1: *Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement* **Degree of offshoring HVA x efficiency-enhancing → Higher performance**	+ .26**	H3b1 (+) supported
Hypothesis 3b2: *Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement* **Degree of offshoring STD x efficiency-enhancing → Higher performance**	+ .14**	H3b2 (+) supported
Hypothesis 2c1: *Growth offshoring strategy positively influences performance improvement for organizations offshoring high-value-added tasks.* **Growth strategy → Higher performance**	+ .11*	H2c1 (+) supported at 10%
Hypothesis 2c2: *Growth offshoring strategy positively influences performance improvement for organizations offshoring standardized tasks.* **Growth strategy → Higher performance**	+ .11*	H2c2 (+) supported at 10%
Hypothesis 3c1: *Growth offshoring strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement* **Degree of offshoring HVA x growth → Higher performance**	+.16**	H3c1 (+) supported
Hypothesis 3c2: *Growth offshoring strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement* **Degree of offshoring STD x growth → Higher performance**	+.08	H3c2 (+) not supported

Note: *Significant at the 10% level ($p<0.1$); **significant at the 5% level ($p<0.05$); ***significant at the 1% level ($p<0.01$). Currently offshoring organizations N=77.

Table 2-3: Summary of PLS results -5 years after offshoring announcement (continued)

Model 1: The degree of offshoring of high value-added tasks (DEG HVA) effect on performance improvement		
R^2	**0.32**	
APC	0.21	P=<0.001
ARS	0.26	P= 0.006
AVIF	1.74	Good if < 5
Model 2: The degree of offshoring of standardized tasks (DEG STD) effect on performance improvement		
R^2	**0.28**	
APC	0.13	P=<0.001
ARS	0.26	P= 0.001
AVIF	1.56	Good if < 5
Model 3: DEG HVA, Cost-reduction strategy and performance		
R^2	**0.24**	
APC	0.14	P=<0.001
ARS	0.23	P= 0.003
AVIF	2.61	Good if < 5
Model 4: DEG HVA, Efficiency-enhancing strategy and performance		
R^2	**0.41**	
APC	0.18	P=<0.001
ARS	0.20	P= 0.001
AVIF	2.66	Good if < 5
Model 5: DEG HVA, Growth strategy and performance		
R^2	**0.37**	
APC	0.12	P=0.001
ARS	0.27	P=0.002
AVIF	2.59	Good if < 5
Model 6: DEG STD, Cost-reduction strategy and performance		
R^2	**0.36**	
APC	0.16	P=<0.001
ARS	0.18	P= 0.003
AVIF	2.50	Good if < 5
Model 7: DEG STD, Efficiency-enhancing strategy and performance		
R^2	**0.34**	
APC	0.16	P=<0.001
ARS	0.24	P= 0.005
AVIF	2.67	Good if < 5
Model 8: DEG STD, Growth strategy and performance		
R^2	**0.28**	
APC	0.14	P=<0.001
ARS	0.26	P= 0.005
AVIF	2.69	Good if < 5

2.4.5.5 The time effect to achieve the expected performance level

Offshoring organizations need to balance between achieving the expected performance level and the time needed to achieve that. Offshoring researchers have paid considerable attention to the performance aspect (e.g. Bhalla, Sodhi & Son, 2008; Farell, 2003, 2005; Fifarek, Veloso & Davidson, 2008; Gilley & Rasheed, 2000, Prezas et al., 2010), but the time aspect is still under-researched (Hutzschenreuter et al., 2011).

This research paper explores the time frame required to achieve the expected performance improvement, taking into consideration the nature of tasks offshored (i.e. high value-added tasks versus standardized tasks) and the offshoring strategic approach (i.e. cost-reduction, efficiency enhancing and growth strategy).

In order to explore the time required to achieve the expected performance improvement in case of different offshoring strategies and nature of tasks offshored, we re-tested our hypothesis using shorter-term change in performance (i.e. 1 year and 3 years after the offshoring announcement year) rather than longer-term performance improvement (i.e. five years after the offshoring announcement year). The change in performance was calculated as:

ΔPerformance = (Value)j – (Value)i , where i = pre-offshoring Year -1 and j = post-offshoring Year +1 and Year +3

The results in table 2.21 (refer to appendices) show the findings one year after the offshoring announcement. The findings only showed support for hypotheses H3b1 (β=+.17** R^2=0.28) and H3b2 (β=+.19**, R^2=0.31) which respectively relate to the positive moderation effect of efficiency-enhancing strategy on performance improvement for organizations offshoring high value-added tasks or standardized tasks. Testing of the hypotheses: H1a, H2a1, 3a1, H2b1, H2b2, H2c1, H2c2, H3c1 showed no support at one year after the offshoring announcement but were supported with the previous test at a five year after the offshoring announcement. H1a (β=+.09, R^2=0.19) was not supported, and the analysis showed that the degree of offshoring of high value-added tasks is not positively and significantly related to performance.

The results in table 2.22 (refer to appendices) show the findings 3 years after the offshoring announcement. The findings showed support for hypothesis H1a (β=+.19**, R^2=0.28) which

confirms the direct positive effect of offshoring high value-added tasks on performance improvement. The findings also showed support for H2a1 (β= -.21**, R^2=0.18) and H3a1 (β= -.24**, R^2=0.18) which confirms respectively the negative direct and moderation effect of cost- reduction strategy on performance improvement for organization offshoring high value-added tasks. In addition, the findings showed support for H2b1 (β=+.17**, R^2=0.36) , H2b2 (β=+.16**, R^2=0.31), H3b1 (β=+.22**, R^2=0.36), H3b2 (β=+.17**, R^2=0.31) which respectively relate to the positive direct and moderation effect of the efficiency-enhancing strategy on performance improvement for organizations offshoring high value-added tasks or standardized tasks. The test of the hypotheses H2c1, H2c2 and H3c1 showed no support at three years after the offshoring announcement but were supported with the previous test at a five year after the offshoring announcement.

2.5 Discussion and conclusion

Three different groups of offshoring strategies were examined: *cost-reduction, efficiency-enhancing and growth strategies.*

The findings confirm the hypothesised direct negative effect of *cost-reduction strategy* on *performance improvement*. Moreover, they confirm the negative moderating effect of cost-reduction strategy on the relationship between the degree of offshoring of high value-added tasks and long-term performance improvement. However, the results contradict our hypothesis about the negative direct and moderating effect of cost-reduction strategy on the relationship between standardized tasks and performance improvement.

Factors which could have contributed to these findings include, firstly: the characteristics of the examined organizations in the sample such as: (1) Organization size: our examined organizations are small and medium-sized organizations; they may lack the resources to pursue cost strategies in the manner that a larger organization would (Qian & Li, 2003). (2) Experience: A high percentage of the organizations that adopted cost-reduction strategy are inexperienced (68% percentage of the organizations that adopted cost-reduction strategy are inexperience (Qian5 years of experience) (see Table 3.1). A low level of experience is likely to affect performance improvement, since offshoring practices characterise themselves as "sequential learning by doing processes" (Lewin & Peeters, 2006b, p.236). Earlier studies

(Carmel and Agarwal 2002; Lewin and Couto 2007; Lewin and Peeters 2006; Maskell et al. 2007) showed the important role of experiential learning in the offshoring firms, where the propensity to offshore high-value added tasks is associated with the level of offshoring experience (Jensen and Pedersen, 2012). However, our analysis show a positive moderating effect of cost-reduction approach over the relationship of the degree of offshoring standardized tasks and performance improvement. Thus, the required level of experience is likely to be less for offshoring standardized tasks than for high-value added tasks (Jensen and Pedersen, 2012) and over time, as offshoring experience increases, the decision-makers' ability to match optimal offshoring approach and destinations with tasks increases.

Secondly, there are potential risks associated with this cost-reduction approach. For example, as the degree of offshoring increases transaction costs may also increase, due to the level of uncertainty involved in the relocation of activities (Roza, van den Bosch and Volberda, 2011; Stratman, 2008; Coase, 1937and Williamson, 1975). This means that the cost savings expected by an offshoring organization may fail to materialise. Furthermore, cost-reduction, a traditional rationale for outsourcing, is likely to be a relatively short-term strategy as competitors begin to copy these cost reduction initiatives. These potential risks are more likely to have a higher effect on offshoring high value-added tasks than standardized tasks.

Thirdly, Kern, Willcocks, and Van Heck (2002) suggest that implementing offshoring as a focus merely on cost savings could attract suppliers who may not work towards the organization's objectives, or suppliers who are themselves concerned with reducing their costs in order to meet their own low bids. As a result, the success and effectiveness of offshore operations would suffer leading to a negative effect on total performance improvement. Cost-reduction strategy could be a short-term oriented to enhance pre-offshoring performance, while this study looks at the longer-term performance effect of the offshoring strategy used.

On the other hand, the findings confirm the positive direct and moderating effect of efficiency-enhancing on long-term performance improvement for organizations offshoring high value-added tasks and standardized tasks. The findings also confirm the positive direct and moderating effect of growth strategy on long-term performance improvement for organizations offshoring high value-added tasks. However, the findings show no support for the positive direct and moderating effect of growth strategy on long-term performance

improvement for organizations offshoring standardized tasks. Factors, identified from prior research, which could have contributed to this finding, include:

Firstly, organizations which make use of qualified personnel and resources at offshore locations (Lewin & Peeters, 2006b) are able to achieve better efficiency, which can lead to better longer-term performance.

Secondly, flexibility, quality, and control can increase the longer-term competitive advantage and growth rate (Quélin & Duhamel, 2003; Quinn & Hilmer, 1994) for the offshoring organizations in the sample.

Thirdly, it could be that the implementation of geographic expansion through offshoring strategy (Barringer & Greening, 1998), and the relocation of functions at the offshore destinations allowed the Australian organizations to reach potential customers more quickly, enter new markets and access other opportunities.

Fourthly, the organizations that adopted these two types of strategies are more experienced and have used that experience to enhance their efficiency and relatively increase their performance.

Finally, we have explored the time effect on the offshoring organizations' success. The findings clearly showed that a longer timeframe than one year is required to achieve the target performance improvement for organizations offshoring high value-added tasks. However, organizations offshoring standardized tasks were able to quickly achieve performance improvement. A possible explanation is that within a timeframe of more than one year organizations acquire more of the knowledge and expertise needed to cope with challenges in offshoring more complex and high value-added tasks (Hutzschenreuter et al., 2011) and are able to achieve performance improvement.

The findings also showed that it took longer than one year for the positive and negative effects of cost reduction strategy to appear. On the other hand, organizations offshoring high value-added tasks or standardized tasks were able to benefit from an efficiency-enhancing strategy and achieve quick performance improvement after one year.

The findings also confirmed that the time required to achieve the expected performance improvement from the offshoring of high-value added tasks and standardized tasks for organizations implementing a growth strategy is longer than five years. The tests of the hypotheses related to the growth strategy show positive direct (at 10%) and moderating effect only after five years of the offshoring announcement year and specially organizations offshoring high value-added tasks.

2.6 Implications and contribution

This research study provided important implications and contribution regardless of the identified limitations that follow.

- First, the main contribution of this study to the offshoring research is in demonstrating that the offshoring success of organizations is contingent on various factors. Our study examined two important factors which are the nature of the specific offshored tasks (high-value added tasks versus standardized tasks) and the strategic offshoring approach chosen when offshoring these tasks.

- Second, this research study built on the findings of previous research by expanding the range of offshoring strategies studied. It presents an overall framework for the degree of offshoring, offshoring strategies (i.e. cost-reduction, efficiency-enhancing and growth), and performance following a disaggregated perspective, focusing on the task-level rather than on the firm-level or activity-level, which is supported theoretically and empirically. Moreover, this study addressed the direct and moderating effect of these offshoring strategies on the relationship between the degree of offshoring (high value-added tasks and standardized tasks) and performance improvement. These two aspects have not been researched in previous studies, although the categorisation of these strategies (i.e. cost, resource and entrepreneurial) (Manning, Massini, Peeters and Lewis, 2012 and Roza, van den Bosch and Volberda, 2011) and their importance have been mentioned (Novak & Stern, 2008; Youngdahl & Ramaswamy, 2008).

- Third, our study complements the studies of Roza, van den Bosch and Volberda (2011) and Manning, Massini, Peeters and Lewin (2012). For example, Roza et al.

(2011) examined the effect of organization size on employing these different offshoring strategies (i.e. cost, resource and entrepreneurial strategy) and Manning et al (2012) examined how the cost saving and growth strategy affect governance choices. Our study complemented these two studies by controlling for the effect of both organization size and governance modes.

- Fourth, the findings confirm empirically the quantitative scope effect of offshoring (i.e. the degree of offshoring) on longer-term performance improvement. This study confirmed that organizations which offshore more tasks and more jobs and have more offshore implementations achieve higher performance.

- Fifth, past research studies focused only on short-term measures (Bhalla et al. 2008). In this study, we suggest that it takes some time for the positive effects of offshoring to emerge. Therefore, specific attention needs to be paid to the longer-term performance effects of offshoring (e.g. Novak & Stern, 2008). Previous studies on offshoring have focused mainly on the performance improvement measures.

- Sixth, previous offshoring research focused on a single aspect of performance mainly cost savings and increase in service levels (Lewin and Couto 2007; Lewin and Peeters 2006). Researchers in the international business field recommend to expand the range of items used to actually measure performance (e.g. Kotabe 1992; Murray, Kotabe & Wildt 1995). Consequently, measuring offshoring based on profitability and sales only does not seem to be appropriate and capture offshoring success. Thus in our study we have also examined the efficiency measurement of cost of goods sold as a percentage of sales.

- Finally, this study empirically investigated the direct and moderating effect of different offshoring strategies on the relationship between the degree of offshoring and long-term performance and revealed :

    (1) the direct positive effect of the degree of offshoring (high value-added tasks and standardized tasks) on performance improvement;

    (2) the direct and moderating negative effect of cost-reduction strategy on performance improvement for organizations offshoring high value-added tasks;

    (3) The direct and moderating positive effect of cost-reduction strategy on performance improvement for organizations offshoring standardized tasks;

(4) the direct and moderating positive effect of efficiency-enhancing strategy on performance improvement for both organizations offshoring high value-added tasks and standardized tasks;

(5) the direct and moderating positive effect of growth strategy on the relationship between the degree of offshoring of high value-added tasks and performance improvement;

These findings can serve as a useful guide for managers in their decision-making process and offer academics new avenues for future exploratory and confirmatory studies.

2.7 Limitations and directions for future research

While the empirical results could have both academic and managerial implications, caution should be exercised when generalising the findings beyond the scope of this study. First, the analysis is based on a small sample, which reduces its statistical power. The target population for the study was narrowly defined to include a set of similar size organizations, which could affect the generalizability of the research. Follow-up empirical studies are needed to support our hypotheses. These future studies could be extended to large organizations in order to give a full picture of the different offshoring strategies effect on performance improvement.

We have previously mentioned that the intention of this paper is to compare the different performance outcomes for employing each one of these strategies versus the others. Organizations might simultaneously use more than one strategy, however the combination effect was not considered in this paper. It would be important to investigate such a model and compare the results to see whether the combination of more than one strategy would be more effective than using each strategy in isolation.

It would also be interesting to replicate this analysis in the near future, to allow us to assess whether our findings are confirmed by the evolution of the practice. Organizations, over time, learn to coordinate more complex processes globally, either through a captive subsidiary or strong relations with third party providers (Manning, Massini, Peeters & Lewis, 2012) and that might change their strategic offshoring drivers. The second limitation is that this study considers a sample consisting only of Australian organizations. This raises the concern that

findings might be country-specific. However, the identified strategic drivers in this Australian study are similar to the strategic drivers of similar size (small to medium size) organizations identified by Roza, Bosch and Volberda (2011) in the United States, the United Kingdom, the Netherlands, Germany and Spain. The third limitation is inherent from the choice of the methodology. Our research revealed that international experience and offshoring governance mode are significant as control variables. Thus, the aspect of experiential-learning and governance mode are worth taking into account and examining their direct and indirect effect on the success of offshoring.

The research in this paper does not pretend to be exhaustive in terms of investigating the influence of all the variables involved in an offshoring strategy-performance relationship, and future research could explore how other factors, such as governance modes and cultural and geographic distances, could affect our research model . As with any empirical study, this paper's limitations provide promising lines of future research.

APPENDICES

Table 2-4: Variables construction and measurements

Variables	Construction and measurement
Dependent	
Financial performance	
- **Difference in Net Operating Income (Year + 5 – Year-1)**	Net Operating Income =Gross Income – Operating Expenses – Depreciation (Year +5- Year-1).
- **Difference in Cost of goods sold as a percentage of Sales (Year +5- Year-1)**	% Difference in cost of goods sold/ Sales (Year +5- Year-1).
- **Difference in Shareholder's Value Growth Rate (Year +5- Year-1)**	% Difference in Shareholder's Value Growth Rate (Year +5- Year -1).
Independent	
Degree of offshoring	Number of jobs offshored as percentage of total jobs
High value-added tasks	Number of tasks offshored as percentage of total tasks
versus	Number of offshoring implementations as percentage of
Standardized tasks	total implementations
Offshoring strategy	
- **Cost reduction strategy**	1 to 5 (low to high) mean score attributed to labour cost reduction and other cost reductions as strategic drivers for the local offshore implementation.
- **Efficiency-enhancing strategy**	1 to 5 (low to high) mean score attributed to gaining access to qualified personnel, business process redesign and improving service levels as strategic drivers for the local offshore implementation.
- **Growth strategy**	1 to 5 (low to high) mean score attributed to access to new market, increasing speed to market, differentiation strategy, and part of global strategy as strategic drivers for the local offshore implementation.
Controls	
International experience	Number of years of previous international experience
Organization size	The natural logarithm of number of employees in a home country.
Organization age	The natural logarithm of number of years an organization has been in existence
Offshoring governance mode	A dummy variable to code the different offshoring governance mode, 1 for captive mode, and 0 for third party governance mode
Industry sector	A dummy variable to code the different industries, 1 for offshoring services, and 0 for offshoring manufacturing

Note: Data was collected between 2010 and 2011.

Correlations among latent variables and P values

Table 2-5: Correlations Model 1

H1a: The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement.

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOVMOD
DEG HVA	**0.96**	0.17**	0.03	0.39***	0.10	0.50***	0.41***
PERF	0.17**	**0.84**	-0.10	0.02	0.27**	0.07	0.03
SIZE	0.03	-0.10	**1.00**	-0.06	-0.03	0.03	0.05
AGE	0.39***	0.02	-0.06	**1.00**	0.05	0.52***	0.34***
INDUST	0.10	0.27**	-0.03	0.05	**1.00**	0.10	0.33***
INT EXP	0.50***	0.07	0.03	0.52***	0.10	**1.00**	0.39***
GOVMOD	0.41***	0.03	0.05	0.34***	0.33***	0.39***	**1.00**
CRC	0.97	0.88	1.00	1.00	1.00	1.00	1.00
Cronbach	0.95	0.79	1.00	1.00	1.00	1.00	1.00
VIF	2.58	1.19	1.03	1.70	1.31	1.89	2.52

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.
CRC: composite reliability coefficient; Cronbach: Cronbach's alpha coefficient; VIF: Variance inflation factor. DEG HVA: Degree of offshoring high value-added tasks; PERF: performance improvement; SIZE: organization size, AGE: organization age; INDUST: Industry (service vs. manufacturing); INT_EXP: International experience; GOVMOD: offshoring governance mode (captive vs. third party)

Table 2-6: Correlations Model 2

H1b: The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement.

	DEG STD	PERF	SIZE	AGE	INDUST	INT EXP	GOVMOD
DEG STD	**0.93**	0.13*	0.04	0.28**	0.1	0.48***	0.21**
PERF	0.13*	**0.84**	-0.1	0.02	0.21**	0.07	0.03
SIZE	0.04	-0.1	**1**	-0.06	-0.03	0.03	0.05
AGE	0.28**	0.02	-0.06	**1**	0.05	0.48***	0.31***
INDUST	0.1	0.21**	-0.03	0.05	**1**	0.1	0.33***
INT EXP	0.48***	0.07	0.03	0.48***	0.1	**1**	0.39***
GOVMOD	0.21**	0.03	0.05	0.31***	0.33***	0.39***	**1**
CRC	0.91	0.78	1	1	1	1	1
Cronbach	0.82	0.79	1	1	1	1	1
VIF	1.58	1.82	1.03	1.7	1.2	1.96	1.64

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.
CRC: composite reliability coefficient; Cronbach: Cronbach's alpha coefficient; VIF: Variance inflation factor. DEG STD: Degree of offshoring Standardized tasks; PERF: performance improvement; SIZE: organization size, AGE: organization age; INDUST: Industry (service vs. manufacturing); INT_EXP: International experience; GOVMOD: offshoring governance mode (captive vs. third party)

Table 2-7: Correlations Model 3

H2a1: offshoring as a *cost-reduction* approach negatively influences performance improvement for organizations offshoring high value-added tasks.

H3a1: offshoring as a *cost-reduction* approach negatively moderates the relationship between the degree of offshoring of high value-added tasks and *performance improvement*.

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	COST	COST*DEG
DEG HVA	**0.96**	0.17**	0.13	0.19**	0.12	0.14*	0.41***	0.04	0.08
PERF	0.17**	**0.84**	0.11	0.02	0.13	0.03	0.03	0.21**	0.19**
SIZE	0.13	0.11	**1**	0.06	0.03	0.02	0.15*	0.12	0.18*
AGE	0.19**	0.02	0.06	**1**	0.06	0.02	0.11	0.18**	0.11
INDUST	0.12	0.13	0.03	0.06	**1**	0.11	0.29**	0.12	0.23**
INT EXP	0.14*	0.03	0.02	0.02	0.11	**1**	0.23**	0.22**	0.26**
GOVMOD	0.41***	0.03	0.15*	0.11	0.29**	0.23**	**1**	0.15*	0.13*
COST	0.04	0.21**	0.12	0.18**	0.12	0.22**	0.15*	**0.8**	0.31***
COST*DEG	0.08	0.19**	0.18*	0.11	0.23**	0.26**	0.13*	0.31***	**0.69**
CRC	0.92	0.85	1	1	1	1	1	0.86	0.89
Cronbach	0.94	0.74	1	1	1	1	1	0.78	0.85
VIF	3.84	1.31	1.03	1.95	1.17	3.47	2.63	4.09	4.08

Note: Cost: Cost-reduction strategy

Table 2-8: Correlations Model 4

H2b1: Offshoring as an *efficiency-enhancing* strategy positively influences performance improvement for organizations offshoring high value-added tasks.

H3b1: Offshoring as an *efficiency-enhancing* strategy positively moderates the relationship between the degree of offshoring of high value-added tasks *and performance improvement*.

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	EFFICEN	EFFICEN*DEG
DEG HVA	**0.96**	0.27**	0.14*	0.12	0.11	0.12	0.32***	0.22**	0.21**
PERF	0.27**	**0.84**	0.13	0.02	0.12	0.03	0.08	0.06	0.11
SIZE	0.14*	0.13	**1**	0.06	0.03	0.02	0.05	0.02	0.12
AGE	0.12	0.02	0.06	**1**	0.05	0.02	0.14*	0.06	0.02
INDUST	0.11	0.12	0.03	0.05	**1**	0.11	0.33***	0.12	0.14*
INT EXP	0.12	0.03	0.02	0.02	0.11	**1**	0.39***	0.20**	0.15*
GOVMOD	0.32***	0.08	0.05	0.14*	0.33***	0.39***	**1**	0.11	0.12
EFFICEN	0.22**	0.06	0.02	0.06	0.12*	0.20**	0.11	**0.8**	0.26**
EFFICEN*DEG	0.21**	0.11	0.12	0.02	-0.14*	0.15**	0.12	0.26**	**0.72**
CRC	0.97	0.88	1	1	1	1	1	0.84	0.95
Cronbach	0.95	0.79	1	1	1	1	1	0.71	0.93
VIF	4.16	1.23	1.02	1.75	1.14	3.55	2.61	4.38	4.16

Note: EFFICEN: Efficiency-enhancing strategy

Table 2-9: Correlations Model 5

H2c1: Offshoring as a *growth strategy* positively influences performance improvement for organizations offshoring high value-added tasks.

H3c1: Offshoring as a *growth strategy* positively moderates the relationship between the degree of offshoring of high value-added tasks and *performance improvement*.

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	GROWTH	GROWTH*DEG
DEG HVA	**0.96**	0.22**	0.12	0.13	0.16*	0.12	0.41***	0.24**	0.31***
PERF	0.22**	**0.84**	0.11	0.02	0.12	0.03	0.11	0.21**	0.13
SIZE	0.12	0.11	**1**	0.06	0.03	0.02	0.05	0.02	0.12
AGE	0.13	0.02	0.06	**1**	0.08	0.02	0.11	0.16*	0.06
INDUST	0.16*	0.12	0.03	0.08	**1**	0.11	0.31***	0.12	0.21**
INT_EXP	0.12	0.03	0.02	0.02	0.11	**1**	0.27**	0.21**	0.18**
GOVMOD	0.41***	0.11	0.05	0.11	0.31***	0.27**	**1**	0.11	0.16*
GROWTH	0.24**	0.21**	0.02	0.16*	0.12	0.21**	0.11	**0.8**	0.29**
GROWTH* DEG	0.31***	0.13	0.12	0.06	0.21**	0.18**	0.16*	0.29**	**0.81**
CRC	0.93	0.88	1	1	1	1	1	0.81	0.88
Cronbach	0.96	0.77	1	1	1	1	1	0.75	0.71
VIFs	3.85	1.19	1.04	1.88	1.16	3.49	2.58	4.23	3.93

Note: Growth: Growth strategy

Table 2-10: Correlations Model 6

H2a2: offshoring as a *cost-reduction* approach negatively influences performance improvement for organizations offshoring standardized tasks.

H3a2: offshoring as a *cost-reduction* approach positively moderates the relationship between the degree of offshoring of standardized tasks and *performance improvement*.

	DEG STD	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	COST	COST*DEG
DEG STD	**0.96**	0.22**	0.11	0.17**	0.14*	0.11	0.39***	0.09	0.12
PERF	0.22**	**0.84**	0.09	0.06	0.16*	0.05	0.07	0.25**	0.17**
SIZE	0.11	0.09	**1**	0.08	0.04	0.02	0.18**	0.11	0.21**
AGE	0.17**	0.06	0.08	**1**	0.06	0.02	0.11	0.18*	0.11
INDUST	0.14*	0.16*	0.04	0.06	**1**	0.11	0.34***	0.14*	0.27**
INT EXP	0.11	0.05	0.02	0.02	0.11	**1**	0.28**	0.21**	0.31***
GOVMOD	0.39**	0.07	0.18**	0.11	0.34***	0.28**	**1**	0.19**	0.17**
COST	0.09	0.25**	0.11	0.18*	0.14	0.21**	0.19**	**0.8**	0.36***
COST*DEG	0.12	0.17**	0.21**	0.11	0.27**	0.31***	0.17**	0.36***	**0.78**
CRC	0.96	0.86	1	1	1	1	1	0.89	0.88
Cronbach	0.98	0.73	1	1	1	1	1	0.78	0.83
VIF	3.88	1.35	1.12	1.91	1.19	3.44	2.62	4.11	4.07

Table 2-11: Correlations Model 7

H2b2: Offshoring as an *efficiency-enhancing* strategy positively influences performance improvement for organizations offshoring standardized tasks.

H3b2: Offshoring as an *efficiency-enhancing* strategy positively moderates the relationship between the degree of offshoring of standardized tasks and *performance improvement*.

	DEG STD	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	EFFICEN	EFFICEN*DEG
DEG STD	**0.96**	0.22**	0.11	0.14*	0.11	0.12	0.29**	0.21**	0.19**
PERF	0.22**	**0.84**	0.13	0.06	0.12	0.03	0.09	0.06	0.13
SIZE	0.11	0.13	**1**	0.04	0.02	0.06	0.08	0.02	0.16*
AGE	0.14*	0.06	0.04	**1**	0.07	0.03	0.12	0.09	0.08
INDUST	0.11	0.12	0.02	0.07	**1**	0.16	0.31***	0.11	0.13
INT EXP	0.12	0.03	0.06	0.03	0.16	**1**	0.36***	0.21**	0.14*
GOVMOD	0.29**	0.09	0.08	0.12	0.31***	0.36***	**1**	0.13	0.12
EFFICEN	0.21**	0.06	0.02	0.09	0.11	0.21**	0.13	**0.8**	0.22**
EFFICEN*DEG	0.19**	0.13	0.16*	0.08	0.13	0.14*	0.12	0.22**	**0.62**
CRC	0.95	0.84	1	1	1	1	1	0.83	0.92
Cronbach	0.93	0.77	1	1	1	1	1	0.67	0.91
VIF	4.11	1.29	1.06	1.78	1.19	3.61	2.52	4.42	4.12

Table 2-12: CorelationCorrelations Model 8

H2c2: Offshoring as a *growth strategy* positively influences performance improvement for organizations offshoring standardized.

H3c2: Offshoring as a *growth strategy* positively moderates the relationship between the degree of offshoring of standardized tasks and *performance improvement*.

	DEG STD	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	GROWTH	GROWTH*DEG
DEG STD	**0.96**	0.19**	0.12	0.14*	0.16*	0.12	0.32***	0.19**	0.33***
PERF	0.19**	**0.84**	0.12	0.06	0.14*	0.07	0.09	0.23**	0.15*
SIZE	0.12	0.12	**1**	0.08	0.04	0.06	0.03	0.07	0.13
AGE	0.14*	0.06	0.08	**1**	0.11	0.01	0.14*	0.13	0.09
INDUST	0.16*	0.14*	0.04	0.11	**1**	0.11	0.33***	0.16*	0.26**
INT_EXP	0.02	0.07	0.06	0.01	0.11	**1**	0.29**	0.23**	0.17**
GOVMOD	0.41***	0.09	0.03	0.14*	0.33***	0.29**	**1**	0.16*	0.18**
GROWTH	0.24**	0.23**	0.07	0.13	0.16	0.23**	0.16*	**0.8**	0.31***
GROWTH* DEG	0.31***	0.15	0.13	0.09	0.26**	0.17**	0.18**	0.31***	**0.73**
CRC	0.97	0.89	1	1	1	1	1	0.86	0.89
Cronbach	0.96	0.79	1	1	1	1	1	0.75	0.87
VIFs	4.15	1.24	1.08	1.92	1.23	3.52	2.63	4.29	4.17

Combined loadings and cross-loadings

Table 2-13: Loadings Model 1

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOVMOD	P value
NO_TASKS	**0.95**	-0.03	0.04	0.02	0.01	0.02	-0.04	<0.001
NO_JOB	**0.96**	0.10	-0.01	0.01	-0.05	-0.04	0.06	<0.001
NO_IIMP	**0.96**	-0.07	-0.03	-0.01	0.04	0.02	-0.01	<0.001
D_NOI	0.10	**0.87**	-0.05	0.02	-0.05	-0.04	0.01	<0.001
D_COGS/S	-0.08	**0.84**	0.03	0.07	-0.09	-0.09	0.24	<0.001
D_SHV	-0.02	**0.81**	0.03	-0.07	0.14	0.14	-0.25	<0.001
LNEMPL	0.05	0.09	**1**	0.03	-0.11	0.16	-0.12	<0.001
AGE	0.08	0.04	-0.06	**1**	-0.09	0.06	0.02	<0.001
IND_SERV	0.14	0.03	-0.07	-0.15	**1**	0.11	0.06	<0.001
INT_EXP	-0.07	0.09	-0.11	0.05	0.03	**1**	-0.08	<0.001
CAPT_MOD	0.07	0.11	-0.06	0.02	-0.04	0.06	**1**	<0.001

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NO_TASKS: number of tasks, NO_JOB: number of jobs, NO_IMPL: number of implementations, D_NOI: difference in net operating income, D_COGS/S: difference in Cost of goods sold/sales, D_SHV: difference in shareholder's value growth rate. IND_SERV: service industry, LNEMPL: natural logarithm of number of employees.

Table 2-14: Loadings Model 2

	DEG STD	PERF	SIZE	AGE	INDUST	INTEXP	GOVMOD	P value
NO_TASKS	**0.93**	-0.16	-0.06	-0.09	0.05	0.11	-0.38	<0.001
NO_JOB	**0.94**	0.12	0.03	0.04	-0.05	-0.06	0.39	<0.001
NO_IIMP	**0.96**	0.02	0.03	0.03	0.09	-0.04	0.26	<0.001
D_NOI	0.49	**0.87**	-0.02	0.09	0.03	-0.13	0.14	<0.001
D_COGS/S	-0.49	**0.84**	0.02	0.09	-0.15	-0.18	0.12	<0.001
D_SHV	-0.13	**0.81**	0.03	-0.19	0.13	0.32	-0.27	<0.001
LNEMPL	0.02	0.08	**1**	0.04	-0.12	0.18	-0.12	<0.001
AGE	0.03	0.06	-0.09	**1**	-0.10	0.02	0.03	<0.001
IND_SERV	0.11	0.04	-0.05	-0.13	**1**	0.09	0.07	<0.001
INT_EXP	-0.02	0.08	-0.12	0.03	0.01	**1**	-0.05	<0.001
CAPT_MOD	0.09	0.13	-0.08	0.03	-0.07	0.05	**1**	<0.001

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NO_TASKS: number of tasks, NO_JOB: number of jobs, NO_IMPL: number of implementations, D_NOI: difference in net operating income, D_SG: difference in cost of goods sold/sales, D_SHV: difference in shareholder's value growth rate. IND_SERV: service industry, LNEMPL: natural logarithm of number of employees.

Table 2-15: Loadings Model 3

	DEG HVA	PERF	SIZE	AGE	INDUST	INT_EXP	GOV MOD	COST	COST* DEG	P value
NO_TASKS	**0.95**	-0.03	0.05	-0.14	0.01	0.16	0.04	-0.02	0.04	<0.001
NO_JOB	**0.96**	0.10	-0.02	0.05	-0.04	-0.06	-0.13	0.03	-0.06	<0.001
NO_IIMP	**0.96**	-0.07	-0.03	0.09	0.03	-0.09	0.05	-0.01	0.02	<0.001
D_NOI	-0.06	**0.87**	-0.06	0.08	-0.07	0.07	0.07	0.16	-0.16	<0.001
D_COGS/S	0.19	**0.84**	0.02	0.19	-0.02	-0.29	-0.13	-0.01	-0.01	<0.001
D_SHV	-0.14	**0.81**	0.05	-0.29	0.10	0.22	0.03	-0.16	0.18	<0.001
LNEMPL	0.08	0.02	**1**	-0.01	0.13	0.12	0.06	0.03	0.01	0.003
AGE	-0.04	0.21	0.07	**1**	0.05	0.08	-0.02	0.03	-0.05	<0.001
IND_SERV	0.02	0.08	-0.08	-0.09	**1**	0.05	0.08	0.08	0.13	<0.001
INT_EXP	-0.08	0.11	0.13	-0.18	0.11	**1**	0.02	-0.09	0.08	<0.001
CPT_MOD	-0.01	0.11	0.12	0.06	0.04	-0.12	**1**	0.21	-0.09	<0.001
LAB_COST	0.30	-0.25	0.03	0.16	0.09	-0.35	-0.01	**0.89**	0.18	0.01
OTH_COST	0.19	0.15	-0.03	-0.16	-0.09	0.28	0.09	**0.86**	0.13	0.03
LAB_COS* N_TASKS	0.32	-0.28	0.02	0.12	0.08	-0.18	-0.16	0.14	**0.71**	0.02
LAB_COS* N_JOB	0.17	-0.25	0.03	0.33	0.11	-0.33	-0.10	-0.32	**0.73**	0.03
LAB_COS* N_IMPL	0.19	-0.11	0.05	0.29	0.08	-0.43	-0.12	0.28	**0.71**	0.03
OTH_COS* N_TASKS	-0.31	0.20	-0.03	-0.20	-0.07	0.09	0.27	-0.36	**0.83**	0.002
OTH_COS* N_JOB	-0.21	0.19	-0.09	-0.12	-0.07	0.19	0.27	-0.39	**0.83**	0.04
OTH_COS* N_IMPL	-0.19	0.25	-0.02	-0.26	-0.09	0.34	0.25	-0.15	**0.79**	0.002

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. LAB_COST: labour cost, OTH_COST: other costs.

Table 2-16: Loadings Model 4

	DEG HVA	PERF	SIZE	AGE	INDUST	INT_EXP	GOV MOD	EFFICEN	EFFICEN*DEG	P value
NO_TASKS	**0.95**	0.03	-0.10	-0.19	-0.04	0.27	-0.01	0.01	0.03	<0.001
NO_JOB	**0.96**	-0.06	-0.05	-0.06	0.17	-0.09	-0.09	0.04	-0.04	<0.001
NO_IIMP	**0.96**	-0.06	-0.04	0.08	0.03	-0.05	0.08	0.01	0.01	<0.001
D_NOI	-0.03	**0.87**	0.02	0.21	-0.03	-0.15	0.28	0.19	-0.16	<0.001
D_COGS/S	0.08	**0.84**	0.02	0.21	-0.03	-0.15	0.18	0.19	-0.16	<0.001
D_SHV	0.04	**0.81**	-0.04	0.02	-0.30	0.06	-0.05	0.06	0.13	<0.001
LNEMPL	0.08	0.02	**1**	-0.06	-0.04	0.08	0.03	-0.05	0.08	0.001
AGE	-0.04	0.21	0.07	**1**	0.05	0.08	-0.02	0.03	-0.05	<0.001
IND_SERV	0.02	0.10	0.33	-0.04	**1**	0.14	-0.11	0.08	0.15	<0.001
INT_EXP	-0.09	0.03	0.03	-0.27	0.01	**1**	-0.01	0.12	0.08	<0.001
ACCESS	0.31	-0.04	0.02	-0.30	0.06	-0.05	0.06	**0.89**	-0.18	<0.001
BUS_PRO	0.16	0.02	0.10	0.33	-0.04	-0.35	0.22	**0.86**	0.06	0.003
SERV_LEV	0.27	0.03	-0.10	-0.19	-0.04	0.27	-0.01	**0.82**	-0.27	<0.001
ACCESS*TASKS	0.36	-0.08	0.06	0.04	0.06	-0.42	-0.21	0.26	**0.83**	<0.001
ACCESS*JOB	-0.09	0.03	0.03	-0.27	0.01	0.36	0.02	0.26	**0.88**	<0.001
ACCESS*IMP	0.10	-0.05	0.13	-0.6	0.14	0.39	-0.04	0.41	**0.86**	<0.001
BUS_PRO*TASKS	0.38	0.18	0.09	0.24	-0.03	-0.37	0.02	-0.35	**0.81**	<0.001
BUS_PRO*JOB	0.23	0.12	0.03	0.15	-0.12	-0.33	-0.04	-0.31	**0.82**	<0.001
BUS_PRO*IMP	0.37	0.28	0.02	0.41	-0.34	-0.27	-0.09	-0.36	**0.84**	<0.001
SERV_LEV*TASKS	-0.43	-0.02	-0.09	-0.31	-0.05	0.33	0.13	-0.02	**0.72**	<0.001
SERV_LEV*JOB	-0.37	0.03	-0.11	-0.39	-0.06	0.36	0.12	-0.14	**0.77**	0.002
SERV_LEV*IMP	-0.29	-0.02	-0.06	-0.22	0.03	0.38	0.07	0.19	**0.81**	<0.001

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. ACCESS: gaining access to qualified personnel, BUS_PRO: business process redesign and SERV_LEV: improving service levels.

Table 2-17: Loadings Model 5

	DEG HVA	PERF	SIZE	AGE	INDUST	INT_EXP	GOV MOD	GROWTH	GROWTH* DEG	P value
NO_TASKS	**0.95**	-0.02	0.05	-0.04	0.06	0.12	0.03	-0.01	0.01	<0.001
NO_JOB	**0.96**	0.08	-0.03	0.05	-0.03	-0.14	-0.06	0.09	-0.08	<0.001
NO_IIMP	**0.96**	-0.07	-0.02	-0.01	0.03	-0.03	-0.02	-0.08	0.06	<0.001
D_NOI	-0.02	**0.87**	-0.04	-0.05	-0.08	0.17	0.02	-0.05	-0.02	<0.001
D_COGS/S	0.16	**0.84**	0.04	0.17	-0.02	-0.24	0.21	-0.11	0.14	<0.001
D_SHV	-0.14	**0.81**	0.01	-0.11	0.15	0.07	0.13	0.15	-0.09	<0.001
LNEMPL	0.08	0.02	**1**	-0.01	0.13	0.12	0.06	0.03	0.01	0.003
AGE	-0.04	0.21	0.07	**1**	0.05	0.08	-0.02	0.03	-0.05	<0.001
IND_SERV	0.08	0.14	0.14	-0.15	**1**	0.19	-0.11	-0.16	-0.12	<0.001
INT_EXP	0.06	-0.13	-0.17	-0.04	0.25	**1**	-0.01	0.17	0.21	<0.001
NEW_MKT	0.15	0.14	-0.09	-0.12	-0.14	0.11	-0.07	**0.89**	0.28	0.04
SPD_MKT	0.15	-0.04	0.09	-0.18	-0.02	0.17	-0.03	**0.84**	0.14	0.02
DIFF_ST	0.36	0.02	0.09	-0.35	-0.04	0.62	0.09	**0.86**	0.25	0.02
NEW_MKT* N_TASKS	0.09	0.18	-0.14	-0.21	-0.24	0.35	0.15	-0.37	**0.69**	0.03
NEW_MKT* N_JOB	0.33	0.07	-0.08	-0.37	-0.26	-0.05	0.04	-0.33	**0.72**	0.02
NEW_MKT* N_IMPL	0.28	0.18	-0.09	-0.31	-0.26	0.35	0.05	-0.37	**0.64**	0.03
SPD_MKT* N_TASKS	0.21	0.39	0.09	-0.33	0.01	-0.23	0.01	0.32	**0.75**	0.02
SPD_MKT* N_JOB	0.31	-0.06	0.15	-0.31	0.04	-0.23	-0.15	-0.09	**0.74**	0.02
SPD_MKT* N_IMPL	0.26	-0.02	0.15	-0.31	0.04	0.14	-0.16	-0.13	**0.76**	0.02
DIFF_ST* N_TASKS	0.23	0.03	0.12	-0.28	-0.06	0.29	-0.26	-0.33	**0.68**	0.02
DIFF_ST* N_JOB	0.32	0.05	0.06	-0.34	-0.02	0.31	0.01	-0.33	**0.72**	0.02
DIFF_ST* N_IMPL	0.36	0.18	0.17	-0.34	-0.07	0.33	0.04	-0.39	**0.69**	0.02

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. Note: P values < 0.05 are desirable for reflective indicators. NEW_MKT: access to new market", SPED_MKT: increasing speed to market", DIFF_ST: differentiation strategy and part of global strategy.

Table 2-18: Loadings Model 6

	DEG STD	PERF	SIZE	AGE	INDUST	INT_EXP	GOV MOD	COST	COST* DEG	P value
NO_TASKS	**0.93**	-0.07	0.04	-0.14	0.01	0.08	0.04	-0.02	0.04	<0.001
NO_JOB	**0.94**	0.1	-0.02	0.04	-0.09	-0.13	-0.16	0.01	-0.06	<0.001
NO_IIMP	**0.96**	-0.13	-0.07	0.09	0.08	0.05	0.04	-0.01	0.02	<0.001
D_NOI	-0.05	**0.87**	-0.04	0.08	-0.05	0.02	0.07	0.16	-0.16	<0.001
D_COGS/S	0.16	**0.84**	0.02	0.17	-0.02	-0.13	-0.13	-0.01	-0.01	<0.001
D_SHV	-0.11	**0.81**	0.02	-0.27	0.1	0.03	0.03	-0.16	0.18	<0.001
LNEMPL	0.03	0.02	**1**	-0.01	0.13	0.06	0.06	0.03	0.01	0.003
AGE	0.21	0.04	0.07	**1**	0.12	-0.02	-0.12	0.03	-0.05	<0.001
IND_SERV	0.03	-0.08	-0.06	-0.09	**1**	0.08	0.08	0.08	0.13	<0.001
INT_EXP	0.17	0.13	0.15	-0.18	0.17	0.02	0.02	-0.09	0.08	<0.001
CPT_MOD	0.11	0.12	0.16	0.09	0.04	-0.12	**1**	0.31	-0.09	<0.001
LAB_COST	-0.29	0.03	0.03	0.19	0.09	-0.37	-0.01	**0.89**	0.18	0.01
OTH_COST	0.17	-0.03	-0.03	-0.11	-0.09	0.23	0.09	**0.86**	0.13	0.03
LAB_COS* N_TASKS	-0.28	0.03	0.01	0.12	0.07	-0.18	-0.17	0.11	**0.71**	0.02
LAB_COS* N_JOB	-0.15	0.03	0.07	0.31	0.11	-0.33	-0.1	-0.32	**0.73**	0.03
LAB_COS* N_IMPL	-0.11	0.08	0.02	0.23	0.08	-0.43	-0.12	0.38	**0.71**	0.03
OTH_COS* N_TASKS	-0.22	0.2	-0.03	-0.19	-0.07	0.09	0.22	-0.36	**0.83**	0.002
OTH_COS* N_JOB	-0.28	0.19	-0.09	-0.16	-0.07	0.13	0.25	-0.39	**0.83**	0.04
OTH_COS* N_IMPL	-0.19	0.24	-0.02	-0.29	-0.09	0.32	0.22	-0.15	**0.79**	0.002

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. LAB_COST: labour cost, OTH_COST: other costs.

Table 2-19: Loadings Model 7

	DEG STD	PERF	SIZE	AGE	INDUST	INT_EXP	GOV MOD	EFFICEN	EFFICEN*DEG	P value
NO_TASKS	**0.93**	0.16	0.02	0.13	0.33	-0.04	-0.35	0.22	0.03	<0.001
NO_JOB	**0.94**	0.27	0.03	-0.15	-0.19	-0.04	0.27	-0.01	-0.04	<0.001
NO_IIMP	**0.96**	-0.05	0.13	-0.16	0.14	0.39	-0.04	0.41	0.01	<0.001
D_NOI	-0.04	**0.87**	-0.08	0.06	0.04	0.06	-0.42	-0.21	0.26	<0.001
D_COGS/S	0.05	**0.84**	0.02	0.21	-0.03	-0.15	0.28	0.19	-0.16	<0.001
D_SHV	0.17	**0.81**	0.04	-0.17	0.14	-0.02	0.11	-0.13	0.13	<0.001
LNEMPL	0.11	0.33	**1**	-0.35	0.22	0.12	0.06	0.03	0.01	0.003
AGE	-0.04	0.21	0.07	**1**	0.05	0.08	-0.02	0.03	-0.05	<0.001
IND_SERV	0.02	0.12	0.33	-0.04	**1**	0.15	-0.11	-0.16	-0.12	<0.001
INT_EXP	0.08	0.02	0.18	-0.06	0.05	**1**	-0.01	0.09	0.07	<0.001
ACCESS	0.31	-0.04	0.02	-0.32	0.06	-0.05	0.06	**0.92**	-0.18	<0.001
BUS_PRO	0.03	-0.11	-0.19	-0.04	0.27	-0.35	0.22	**0.88**	0.16	0.001
SERV_LEV	0.37	0.03	-0.12	-0.19	-0.04	0.27	-0.01	**0.87**	-0.27	<0.001
ACCESS*TASKS	-0.42	-0.21	0.26	0.04	0.06	-0.36	-0.21	0.26	**0.84**	<0.001
ACCESS*JOB	-0.09	0.03	0.03	-0.27	0.01	0.36	0.02	0.26	**0.86**	<0.001
ACCESS*IMP	0.11	-0.03	-0.37	0.02	-0.35	0.38	-0.04	0.45	**0.85**	<0.001
BUS_PRO*TASKS	0.15	-0.12	-0.33	-0.04	-0.31	-0.39	0.02	-0.35	**0.83**	<0.001
BUS_PRO*JOB	0.23	0.12	0.03	0.25	-0.12	-0.37	-0.04	-0.31	**0.82**	<0.001
BUS_PRO*IMP	0.23	0.12	0.03	0.15	-0.12	-0.37	-0.09	-0.36	**0.81**	<0.001
SERV_LEV*TASKS	-0.09	-0.31	-0.29	-0.02	-0.06	-0.22	0.03	0.38	**0.71**	<0.001
SERV_LEV*JOB	-0.37	0.03	-0.11	-0.43	-0.06	0.33	0.12	-0.14	**0.76**	0.002
SERV_LEV*IMP	-0.39	-0.02	-0.06	-0.32	0.03	0.22	0.08	0.15	**0.79**	<0.001

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. ACCESS: gaining access to qualified personnel, BUS_PRO: business process redesign and SERV_LEV: improving service levels.

Table 2-20: Loadings Model 8

	DEG STD	PERF	SIZE	AGE	INDUST	INT_EXP	GOV MOD	GROWTH	GROWTH* DEG	P value
NO_TASKS	**0.93**	0.02	0.12	0.33	-0.04	0.12	-0.04	-0.01	0.01	<0.001
NO_JOB	**0.94**	0.08	-0.03	0.05	-0.03	-0.17	0.02	0.09	-0.08	<0.001
NO_IIMP	**0.96**	0.03	-0.11	-0.19	-0.04	0.27	-0.04	0.22	0.06	<0.001
D_NOI	-0.02	**0.87**	-0.04	-0.05	-0.08	0.17	-0.09	-0.05	-0.02	<0.001
D_COGS/S	0.16	**0.84**	0.04	0.17	-0.02	-0.24	0.03	-0.14	0.13	<0.001
D_SHV	-0.14	**0.81**	0.01	-0.11	0.12	0.07	0.13	0.15	-0.09	<0.001
LNEMPL	0.08	0.02	**1**	0.31	-0.04	0.02	-0.32	0.06	-0.05	0.003
AGE	0.15	-0.12	-0.33	**1**	-0.31	-0.39	-0.02	0.03	-0.05	<0.001
IND_SERV	0.09	0.16	-0.18	0.11	**1**	0.17	-0.12	-0.16	-0.12	<0.001
INT_EXP	0.03	-0.11	-0.19	-0.04	0.27	**1**	-0.01	0.18	0.19	<0.001
NEW_MKT	0.16	0.11	-0.09	-0.12	-0.14	0.1	-0.07	**0.89**	0.27	0.04
SPD_MKT	0.11	-0.03	-0.37	0.02	-0.35	0.17	-0.03	**0.85**	0.13	0.02
DIFF_ST	0.32	0.04	0.09	-0.38	-0.04	0.32	0.09	**0.87**	0.25	0.02
NEW_MKT* N_TASKS	0.11	0.15	-0.12	-0.26	-0.21	-0.13	0.15	-0.34	**0.69**	0.03
NEW_MKT* N_JOB	0.32	0.04	-0.08	-0.32	-0.26	-0.08	0.04	-0.37	**0.72**	0.03
NEW_MKT* N_IMPL	0.28	0.15	-0.09	-0.33	-0.26	0.34	0.05	-0.35	**0.63**	0.03
SPD_MKT* N_TASKS	0.21	0.37	0.09	-0.32	0.01	0.19	0.01	0.34	**0.72**	0.02
SPD_MKT* N_JOB	0.33	-0.08	0.15	-0.37	0.04	0.19	-0.15	-0.09	**0.73**	0.03
SPD_MKT* N_IMPL	0.22	-0.06	0.12	-0.31	0.04	0.16	-0.16	-0.13	**0.74**	0.01
DIFF_ST* N_TASKS	0.27	0.02	0.12	-0.26	-0.06	0.27	-0.26	-0.35	**0.68**	0.02
DIFF_ST* N_JOB	0.36	0.07	0.06	-0.33	-0.02	0.35	0.01	-0.37	**0.71**	0.01
DIFF_ST* N_IMPL	0.34	0.14	0.16	-0.32	-0.05	0.31	0.04	-0.39	**0.68**	0.02

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. Note: P values < 0.05 are desirable for reflective indicators. NEW_MKT: access to new market", SPED_MKT: increasing speed to market", DIFF_ST: differentiation strategy and part of global strategy.

Table 2-21: Summary of PLS results - 1 year after offshoring announcement

Hypothesised Path	Financial performance	Support for Hypothesis
Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement.* **Higher degree of offshoring HVA→ Higher performance**	+ .09	H1a (+) not supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement.* **Higher degree of offshoring STD ≠ Higher performance**	+ .16**	H1b (-) not supported
Hypothesis 2a1: *Cost- reduction strategy negatively influences performance improvement for organizations offshoring high-value-added tasks.* **Cost-reduction strategy → Lower performance**	- .08	H2a1 (-) not supported
Hypothesis 2a2: *Cost- reduction strategy negatively influences performance improvement for organizations offshoring standardized tasks.* **Cost-reduction strategy → Lower performance**	+ .18**	H2a2 (-) not supported
Hypothesis 3a1: *Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **Degree of offshoring HVA x cost-reduction → Lower performance**	- .06	H3a1 (-) not supported
Hypothesis 3a2: *Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **Degree of offshoring STD x cost-reduction → Lower performance**	+ .14**	H3a2 (-) not supported
Hypothesis 2b1: *Efficiency enhancing strategy positively influences performance improvement for organizations offshoring high-value-added tasks.* **Efficiency-enhancing strategy → Higher performance**	+ .09	H2b1 (+) not supported
Hypothesis 2b2: *Efficiency enhancing strategy positively influences performance improvement for organizations offshoring standardized tasks.* **Efficiency-enhancing strategy → Higher performance**	+ .10	H2b2 (+) not supported
Hypothesis 3b1: *Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **Degree of offshoring HVA x efficiency-enhancing → Higher performance**	+ .17**	H3b1 (+) supported
Hypothesis 3b2: *Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **Degree of offshoring STD x efficiency-enhancing → Higher performance**	+ .19**	H3b2 (+) supported
Hypothesis 2c1: *Growth offshoring strategy positively influences performance improvement for organizations offshoring high-value-added tasks.* **Growth strategy → Higher performance**	+ .09	H2c1 (+) not supported
Hypothesis 2c2: *Growth offshoring strategy positively influences performance improvement for organizations offshoring standardized tasks.* **Growth strategy → Higher performance**	+ .09	H2c2 (+) not supported
Hypothesis 3c1: *Growth offshoring strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **Degree of offshoring HVA x growth → Higher performance**	+.08	H3c1 (+) not supported
Hypothesis 3c2: *Growth offshoring strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **Degree of offshoring STD x growth → Higher performance**	+.06	H3c2 (+) not supported

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01). Currently offshoring organizations N=77.

Table 2-21: Summary of PLS results – 1 year after offshoring announcement (continued)

Model 1: The degree of offshoring of high value-added tasks (DEG HVA) effect on performance improvement		
R^2	**0.19**	
APC	0.17	P=<0.001
ARS	0.21	P= 0.004
AVIF	2.54	Good if < 5
Model 2: The degree of offshoring of standardized tasks (DEG STD) effect on performance improvement		
R^2	**0.27**	
APC	0.18	P=<0.001
ARS	0.23	P= 0.003
AVIF	2.36	Good if < 5
Model 3: DEG HVA, Cost-reduction strategy and performance		
R^2	**0.17**	
APC	0.14	P=<0.001
ARS	0.17	P= 0.001
AVIF	1.53	Good if < 5
Model 4: DEG HVA, Efficiency-enhancing strategy and performance		
R^2	**0.28**	
APC	0.14	P=<0.001
ARS	0.26	P= 0.002
AVIF	2.33	Good if < 5
Model 5: DEG HVA, Growth strategy and performance		
R^2	**0.21**	
APC	0.14	P=0.001
ARS	0.26	P=0.001
AVIF	2.37	Good if < 5
Model 6: DEG STD, Cost-reduction strategy and performance		
R^2	**0.34**	
APC	0.12	P=<0.001
ARS	0.14	P= 0.004
AVIF	2.35	Good if < 5
Model 7: DEG STD, Efficiency-enhancing strategy and performance		
R^2	**0.31**	
APC	0.14	P=<0.001
ARS	0.22	P= 0.002
AVIF	1.47	Good if < 5
Model 8: DEG STD, Growth strategy and performance		
R^2	**0.29**	
APC	0.16	P=<0.001
ARS	0.22	P= 0.002
AVIF	2.27	Good if < 5

Table 2-22: Summary of PLS results - 3 years after offshoring announcement

Hypothesised Path	Financial performance	Support for Hypothesis
Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement.* **Higher degree of offshoring HVA→ Higher performance**	+ .19**	H1a (+)supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement.* **Higher degree of offshoring STD ≠ Higher performance**	+ .17**	H1b (-) not supported
Hypothesis 2a1: *Cost- reduction strategy negatively influences performance improvement for organizations offshoring high-value-added tasks.* **Cost-reduction strategy → Lower performance**	- .21**	H2a1 (-) supported
Hypothesis 2a2: *Cost- reduction strategy negatively influences performance improvement for organizations offshoring standardized tasks.* **Cost-reduction strategy → Lower performance**	+ .17**	H2a2 (-) not supported
Hypothesis 3a1: *Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **Degree of offshoring HVA x cost-reduction → Lower performance**	- .24**	H3a1 (-) supported
Hypothesis 3a2: *Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **Degree of offshoring STD x cost-reduction → Lower performance**	+ .16**	H3a2 (-) not supported
Hypothesis 2b1: *Efficiency enhancing strategy positively influences performance improvement for organizations offshoring high-value-added tasks.* **Efficiency-enhancing strategy → Higher performance**	+ .17**	H2b1 (+) supported
Hypothesis 2b2: *Efficiency enhancing strategy positively influences performance improvement for organizations offshoring standardized tasks.* **Efficiency-enhancing strategy → Higher performance**	+ .16**	H2b2 (+) supported
Hypothesis 3b1: *Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **Degree of offshoring HVA x efficiency-enhancing → Higher performance**	+ .22**	H3b1 (+) supported
Hypothesis 3b2: *Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **Degree of offshoring STD x efficiency-enhancing → Higher performance**	+ .17**	H3b2 (+) supported
Hypothesis 2c1: *Growth offshoring strategy positively influences performance improvement for organizations offshoring high-value-added tasks.* **Growth strategy → Higher performance**	+ .08	H2c1 (+) not supported
Hypothesis 2c2: *Growth offshoring strategy positively influences performance improvement for organizations offshoring standardized tasks.* **Growth strategy → Higher performance**	+ .06	H2c2 (+) not supported
Hypothesis 3c1: *Growth offshoring strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **Degree of offshoring HVA x growth → Higher performance**	+.10	H3c1 (+) not supported
Hypothesis 3c2: *Growth offshoring strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **Degree of offshoring STD x growth → Higher performance**	+.08	H3c2 (+) not supported

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01). Currently offshoring organizations N=77.

Table 2-22: Summary of PLS results -3 years after offshoring announcement (continued)

Model 1: The degree of offshoring of high value-added tasks (DEG HVA) effect on performance improvement		
R^2	**0.28**	
APC	0.18	P=<0.001
ARS	0.21	P= 0.004
AVIF	1.53	Good if < 5
Model 2: The degree of offshoring of standardized tasks (DEG STD) effect on performance improvement		
R^2	**0.23**	
APC	0.11	P=<0.001
ARS	0.22	P= 0.002
AVIF	1.44	Good if < 5
Model 3: DEG HVA, Cost-reduction strategy and performance		
R^2	**0.18**	
APC	0.12	P=<0.001
ARS	0.19	P= 0.001
AVIF	1.93	Good if < 5
Model 4: DEG HVA, Efficiency-enhancing strategy and performance		
R^2	**0.36**	
APC	0.16	P=<0.001
ARS	0.18	P=< 0.001
AVIF	2.35	Good if < 5
Model 5: DEG HVA, Growth strategy and performance		
R^2	**0.29**	
APC	0.10	P=<0.001
ARS	0.22	P=<0.001
AVIF	2.42	Good if < 5
Model 6: DEG STD, Cost-reduction strategy and performance		
R^2	**0.33**	
APC	0.14	P=<0.001
ARS	0.22	P= 0.004
AVIF	2.36	Good if < 5
Model 7: DEG STD, Efficiency-enhancing strategy and performance		
R^2	**0.31**	
APC	0.16	P=<0.001
ARS	0.18	P= 0.003
AVIF	2.44	Good if < 5
Model 8: DEG STD, Growth strategy and performance		
R^2	**0.23**	
APC	0.12	P=<0.001
ARS	0.28	P= 0.006
AVIF	2.38	Good if < 5

REFERENCES

Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27–58.

Alexander, M., and Young, D. (1996). Strategic outsourcing. *Long Range Planning*, 29(1), 116-119.

Allison, P.D. (1999). Logistic regression using the SAS system: *Theory and application SAS Institute, Cary, North Carolina- based developer of analytics software (Cary, NC).*

Alwin, D., and Hauser, R. (1975). The decomposition of effects in path analysis. *American Sociological Review*, 40(1), 37-47.

Argyres, N., and Bigelow, L. (2010). Innovation, modularity, and vertical disintegration: Evidence from the early U.S. auto industry. *Organization Science,* 4, 842-853.

Argyres, N., and Mayer, K. J. (2007). Contract design as a firm capability: An integration of learning and transaction cost perspectives. *Academy of Management Review,* 32(4), 1060-1077.

Arthurs, J. D., and Busenitz, L. W. (2006). Dynamic capabilities and venture performance: The effects of venture capitalists. *Journal of Business Venturing*, 21(2), 195–215.

Baden-Fuller, C.W., and Stopford, J. (1994). Creating corporate entrepreneurship. *Strategic Management Journal,* 15, 521-536.

Bagozzi, R. P., and Fornell, C. (1982). Theoretical Concepts, Measurement, and Meaning in C. Fornell (ed.) A Second Generation of Multivariate Analysis, *New York: Praeger*, 24-38.

Barker, V., and Duhaime, I. (1997). Strategic change in the turnaround process: theory and empirical evidence. *Strategic Management Journal*, 18(1), 13-38.

Barney, J. (1991). Organisation resources and sustained competitive advantage. *Journal of Management,* 17(1), 99–120.

Baron, R. M., and Kenny, D. A. (1986). The moderator mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.

Barringer, B. R., and Greening, D. W. (1998). Small business growth through geographic expansion: A comparative case study. *Journal of Business Venturing*, 13, 467–492.

Bartell, S. M. (1998). Information systems outsourcing: a literature review and agenda for research. International. *Journal of Organization Theory and Behaviour*, 1, 17−44.

Baumol, W. J. (1993). Formal entrepreneurship theory in economics − Existence and bounds. *Journal of Business Venturing*, 8(3), 197–210.

Belsley, D. A., Kuh, E., and Welsch, R. E. (1980). Regression diagnostics: identifying influential data and sources of collinearity. *New York: JohnWiley and Sons.*

Bettis, R.A., Brandley, S.P., and Hamel, G. (1992). Outsourcing and industrial decline. *Academy of Management Executive*, 6 (1), 7-22.

Bhalla, A., Sodhi, M.S., and Son, B.G. (2008). Is more IT offshoring better? An exploratory study of western companies offshoring to South East Asia. *Journal of Operations Management,* 26(2), 322-35.

Bock, S. (2008). Supporting offshoring and nearshoring decisions for mass customization manufacturing processes. *European Journal of Operational Research*, 184, 490–508

Brynjolfsson, E., Malone, T., Gurbaxani, V., and Kambil, A.(1994). Does Information Technology Lead to Smaller Organisations? *Management Science* 40(12), 1628-1644.

Bunyaratavej, K., Hahn, E. D., and Doh, J. P. (2007). International offshoring of services: A parity study. *Journal of International Management*, 13(1), 7–21.

Cantwell, J. A., and Mudambi, R. (2005). MNE competence creating subsidiary mandates. *Strategic Management Journal*, 26(12).1109–1128.

Chandler, A. (1962) Strategy and structure: chapters in the history of the American enterprise. *The Massachusetts Institute of Technology* (*MIT),* Press, Boston

Chiao, P., and Li, Y. (2009). Are more exports better for a performance improvement? The moderating effect of FDI. *European Journal of International Management*, 3 (3), 286–301.

Chiquoine, B. and Hjalmarsson, E. (2009). Jackknifing Stock Return Predictions. *Journal of Empirical Finance* 16, 793–803.

Coase, R. H. (1937). The nature of the organisation. *Economica,* 4(16), 386–405.

Cohen, J. (1978). Statistical Power Analysis for the Behavioral Sciences. *Academic Press, New York*

Contractor, F. J., Kumar, V., and Kundu, S. K. (2007). Nature of the relationship between international expansion and performance: The case of emerging market organisations. *Journal of World Business,* 42(4), 401–417.

Cooke, F. L., Shen, J., and McBride, A. (2005). Outsourcing as a competitive strategy? Literature review and an assessment of implications. *Human Resource Management*, 44, 413-422.

Cooke, F. L., Shen, J., and McBride, A. (2005). Using HR outsourcing and shared services as HR strategies: a review of literature and assessment of implications. *Human Resource Management,* 44, 413−432

Corbett, M.F. (1996). Outsourcing as a strategic tool. *Canadian Business Review*, 23, 14-16.

Coucke, K., and Sleuwaegen, L. (2008). Offshoring as a survival strategy: Evidence from manufacturing organisations in Belgium. *Journal of International Business Studies*, 39, 1261–1277

Coucke, k., and Sleuwaegen, L. (2008). Offshoring as a survival strategy: Evidence from manufacturing organisations in Belgium. *Journal of International Business Studies*, 39, 1261–1277.

Couto, V., Mani, M., Lewin, A. Y., and Peeters, C. (2006). The globalization of white collar work – Facts and fallout of next generation offshoring. *Booz Allen Hamilton Viewpoint*.

Davidsson, P. (1989). Entrepreneurship – and after – A study of growth willingness in small organisations. *Journal of Business Venturing*, 4(3), 211–226

Doh, J. P. (2005). Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies*, 42(3), 695–704.

Doh, J. P., Bunyaratavej, K., and Hahn, E. D. (2009).Separable but not equal: The location determinants of discrete services offshoring activities. *Journal of International Business Studies*, 40, 926–943.

Dossani, R., and M. Kenney. (2007). The next wave of globalization: Relocating service provision to India. *World Development*, 35(5) 772-791.

Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, 11(1), 9–31.

Duo, Y. and Sarkis, J. (2010). A joint location and outsourcing sustainability analysis for a strategic offshoring decision. *International Journal of Production Research*, 48(2), 567–592.

Edwards, J.R., and Lambert, L.S. (2007). Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis. *Psychological Methods*, 1–22.

Ellram, L., Tate, W., and Billington, C. (2008). Offshore outsourcing of professional services: A transaction cost economics perspective. *Journal of Operations Management*, 26(2), 148–163.

Erber, A. G. (2005). Sayed-Ahmed Offshore outsourcing: A global shift in the present IT industry. *Intereconomics*, 40,100–112.

Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies,* 42(3), 675–683.

Farrell, D. (2003). Offshoring: Is it a win-win game? (pp. 1–15). San Francisco: McKinsey Global Institute.

Fiet, J. O. (2001). The pedagogical side of entrepreneurship theory. *Journal of Business Venturing,* 16(2), 101–117

Fifarek, B.J., Veloso, F.M., and Davidson, C.I. (2008) Offshoring Technology Innovation: A Case Study of Rare-Earth Technology. *Journal of Operations Management*, 26, 222–38.

Fornell, C., and Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39–50.

Foss, N. J., and Ishikawa, I. (2007). Towards a dynamic resource-based view: insights from Austrian capital and entrepreneurship theory, *Organization Studies*, 28, 749–72

Franko, L. G. (1989). Global corporate competition: Who's winning, who's losing, and the R&D factor as one reason why. *Strategic Management Journal*, 10, 449-474.

Geyskens, I., Steenkamp, J.E.M., and Kumar, N. (2006). Make, buy, or ally: a transaction cost theory meta-analysis. *Academy of Management Journal*, 49, 519–543.

Gilley, K., and Rasheed, A. (2000). Making more by doing less: An analysis of outsourcing and its effects on firm performance. *Journal of Management*, 26(4), 763–790.

Gooris, J., and Peeters, C. (2012). Home-Host Country Distance and Governance Choices in Service Offshoring. *Ecore discussion paper.*

Gottfredson, M., Puryear, R., and Phillips, S. (2005). Strategic sourcing: From periphery to the core. *Harvard Business Review*, 132–9.

Grossman, S., and Hart, O. (1986). The costs and benefits of ownership: A Theory of vertical and lateral integration. *Journal of Political Economy*, 94, 691-719.

Grote, M. H., and Täube, F. A. (2007): When Outsourcing is not an option: International relocation of investment bank's research, *Journal of International Management* 13(1), 57-77.

Gujarati, D.N. (2003). Basic econometrics, 4th edition. Boston: McGraw-Hill/Irwin.

Gupta, S., Bhattacharya, T., Agrawal, S., Xu, H. and Garg, M. (2010).Offshoring dynamics: implications for India as an attractive offshore location. *International Journal of Indian Culture and Business Management*, 307-322.

Hair, J., Rolph, A., and Tatham, R. (1987), Multivariate Data Analysis, 2nd ed., Macmillan, New York, NY.

He, Z.L., and Wong, P.K. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science* 15,481–494.

Holcomb, T. R., and Hitt, M. A. (2007). Toward a model of strategic outsourcing. *Journal of Operations Management*, 25(2), 464–481.

Holmbeck, N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: examples from the child–clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65 (1997), 599–610.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Time to success in Offshoring Business Processes. *Management International Review*, 51, 65-92.

Hutzschenreuter, T., Pedersen, T., and Volberda, H. W. (2007). The role of path dependency and managerial intentionality: A perspective on international business research. *Journal of International Business Studies*, 38(7), 1055–1068.

Icek, A., and Fishbein, M. 1980. Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice Hall.

Insinga, R.C., and Werle, M.J. (2000). Linking outsourcing to business strategy. *Academy of Management Executive,* 14 (4), 58-70.

Jabbour, L. (2010). Offshoring and firm performance: evidence from French manufacturing industry. *The World Economy*, 33(3), 507-524

James, L. R., and Brett, J. M. (1984). Mediators, moderators, and tests for mediation. *Journal of Applied Psychology*, 69, 307–321.

James, L. R., and Brett, J.M. (1984). Mediators, Moderators, and Tests for Mediations. *Journal of Applied Psychology*, 69, 307–321.

Jensen, P. D. O. (2009). A learning perspective on the offshoring of advanced services. *Journal of International Management,* 15(2):181-193.

Jensen, P. D. Ø., and Pedersen, T. (2012). Offshoring and international competitiveness: antecedents of offshoring advanced tasks. *Academy of Marketing Science*, 40, 313–328.

Jensen, P. D. Ø., Kirkegaard, J. F., and Laugesen, N.S. (2006).Offshoring in Europe—Evidence of a Two-Way Street from Denmark. *Institute for International Economics, working paper series, WP 06-3.*

Kakabadse, A., and Kakabadse, N. (2002). Making 'modernising government initiatives' work: culture change through collaborative inquiry (CI). *Public Administration and Development* 22(4), 337–352.

Kakabadse, A., Kakabadse, N. (2005). Outsourcing: current and future trends. *Thunderbird International Business Review,* 47, 183–204.

Kakabadse, N., and Kakabadse, A. (2000). Critical review — outsourcing: a paradigm shift. Journal of Management Development, 19, 670–728.

Kenney, M., Massini, S., and Murtha, T.P. (2009). Offshoring administrative and technical work: New fields for understanding the global enterprise. *International Journal of Business Studies*, 40(6), 887-900.

Kern, T., Willcocks, L., and Van Heck, E. (2002). The winner's curse in IT outsourcing: how to avoid relational trauma. *California Management Review*, 44 (2), 47-69.

Kimberly, J.R., and Quinn, R.E. (1984). Managing organizational translations. *Dow Jones-Irwin, Homewood, IL, 295–313.*

Kline, R.B. (2009). Becoming a Behavioral Science Researcher: A Guide to Producing Research that Matters. *The Guilford Press: New York.*

Kline, R.B. (2005). Principles and practice of structural equation modelling. *Guilford Press, New York.*

Kock, N. (2009). Information systems theorizing based on evolutionary psychology: An interdisciplinary review and theory integration framework. *Management Information Systems Quarterly,* 33(2), 395-418.

Kock, N. (2012). WarpPLS 3.0 User Manual.

Kotabe, M. (1990). The relationship between offshore sourcing and innovativeness of U.S. multinational organisations: An empirical investigation. *Journal of International Business Studies*, 21(4), 623–638.

Kotabe, M. (1992).Global sourcing strategy: R&D, manufacturing, and marketing interfaces. *New York: Quorum.*

Leavy, B. (2004). Outsourcing strategies: opportunities and risks Strategy and Leadership, 32 (2004), 20–25.

Levy, D. L. (2005). Offshoring in the new global political economy. *Journal of Management Studies,* 42(3), 685-93.

Lewin, A. Y., and Couto, V. (2007). Next Generation Offshoring. The Globalization of Innovation. Durham and Chicago*: Duke Centre for International Business Education and Research and Booz Allen Hamilton.*

Lewin, A. Y., and Peeters, C. (2006a). Forethought growth strategies: The top-line allure of offshoring. *Harvard Business Review*, 83(3), 22–23.

Lewin, A. Y., and Peeters, C. (2006b). Offshoring work: Business hype or the onset of fundamental transformation. *Long Range Planning, 39*(3), 221–239.

Lewin, A. Y., Massini, S., and Peeters, C. (2009). Why are companies offshoring innovation? The emerging global race for talent. *Journal of International Business Studies*, 40(6), 901–925.

Lumpkin, G.T., and Dess, G.G. (1995). Simplicity as a strategy-making process: the effects of stage of organizational development and environment on performance. *Academy of Management Journal*, 38 (5), 1386-407.

MacKinnon, D. P., Lockwood, C.M., Hoffman, J.M., West, S.G., and Sheets, V. (2002).A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods,* 7, 83–104. doi: 10.1037/1082-989X.7.1.83

Malone, T. W., Yates, J., and Benjamin, R.I. (1987). Electronic markets and electronic hierarchies. *Communications of the Association for Computing Machinery (ACM)*, 30 (6), 484–497.

Maltz, A., Sauter. E. (1995). Services outsourcing: marketing strategy and the internal competitor. *Journal of Strategic Marketing*, 3 (1995), 233–244.

Manning, S., Massini, S., Peeters, C., and Lewin, A.Y. (2012).Global Co-Evolution of Firm Boundaries: Process Commoditization, Capabilities, Development, and Path Dependencies. *Centre Emile Bernheim.*

Markusen, J. (2005). Modelling The Offshoring of White-collar Services from Comparative Advantage to The New Theories of Trade and FDI. *National Bureau of Economic Research, working paper series, WP 11827.*

Maskell, P., Pedersen, T., Petersen, B., and Dick, N.J. (2007). Learning paths to offshore outsourcing: From cost reduction to knowledge seeking. *Industry and Innovation*, 14, 239–257.

Massini, S., Perm-Ajchariyawong, N., and Lewin, A.Y. (2010). Role of corporate wide offshoring strategy in directing attention to offshoring drivers, risks and performance. *Industry and Innovation,* 17, 337- 371.

Mayer, K. J., and Salomon, R. (2006). Capabilities, contractual hazards, and governance: integrating resource-based and transaction cost perspectives. *Academy of Management Journal,* 49, 942–959.

McCann, P., and Mudambi, R. (2005). Analytical differences in the economics of geography: the case of the multinational firm. *Environment and Planning A, 37, 1857 -1876.*

McDougall, P. P., and Oviatt, B. M. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal*, 43(5), 902–906.

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management,* 27(1), 45-63.

Monczka, R., Trent, R., and Handfield, R. (2005). Purchasing and supply chain management. South-Western, Mason, OH.

Mosakowski, E. (2002). Overcoming resource disadvantages in entrepreneurial organisations: When less is more. In M. A. Hitt, R.D. Ireland, S. M. Camp, and D. L. Sexton (Eds.), Strategic entrepreneurship: Creating a new mindset. Oxford: Blackwell Publishing, 106–126.

Mudambi, R. (2008) Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography*, 8, 699–725.

Mudambi, R., and Venzin, M. (2010).The Strategic Nexus of Offshoring and Outsourcing Decisions. *Journal of Management Studies*, 47(8).

Mudambi, S. M., and Tallman, S. (2010). Make, buy or ally? Theoretical perspectives on knowledge process outsourcing through alliances. *Journal of Management Studies*, 47, 1434–1456.

Murray, J.Y., Kotabe, M., and Wildt, A.R. (1995). Strategic and performance improvement implications of global sourcing strategy: A contingency analysis. *Journal of International Business Studies*, 26(1), 181–202.

Mykland, P.A., and Zhang, L. (2006) ANOVA for diffusions and Ito processes. *Annal of Statistics, forthcoming,* 34(4), 000–000.

Nachum, L., and Zaheer, S. (2005). The persistence of distance? The effect of technology on MNE motivations for foreign investment. *Strategic Management Journal*, 26(8), 747–767.

Novak, S., and Stern, S. (2008). How does outsourcing affect performance dynamics? Evidence from the automobile industry. *Management Science,* 54 (12), 1963–1979.

Nunnally, J. (1978). Psychometric Theory. *McGraw-Hill, New York.*

Nunnally, J.C. and Bernstein, I.H. (1994). *Psychometric Theory, 3rd ed. McGraw-Hill, Inc.: New York.*

Osborne, J.W. (2008). Best Practices in Quantitative Methods. *Sage Publications: Thousand Oaks, CA.*

Oviatt, B. M., and McDougall, P. P. (2005). The internationalization of entrepreneurship. *Journal of International Business Studies*, 36(1), 2–8.

Pedhazur, E.J. (1997) Multiple-regression in behavioral research (3rd ed.).*Harcourt Brace College Publishers, Orlando.*

Penrose, E. T. (1959). The theory of the growth of the organisation. *Oxford: Blackwell.*

Peters, E., and Levin, I. P. (2008). Dissecting the risky-choice framing effect: Numeracy as an individual-difference factor in weighting risky and riskless options. *Judgment and Decision Making*, 3, 435–448.

Phan, P. H. (2004). Entrepreneurship theory: Possibilities and future directions. *Journal of Business Venturing,* 19(5), 617–620

Porter, M. E. (1990). The competitive advantage of nations. *New York The Free Press.*

Preacher, K. J., and Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, and Computers, 3*6, 717-731.

Prezas, A.P. et al. (2010). Does offshoring create value for shareholders? *Review of Financial Economics, 19(4)*, 179-191.

Que´lin, B., and Duhamel, F. (2003) Bringing together strategic outsourcing and corporate strategy: outsourcing motives and risks, *European Management Journal,* 21(5), 647–661.

Quenouille, M. H. (1949). Approximate Tests of Correlation in Time-Series. *Journal of the Royal Statistical Society,* 11(1), 68-84

Quinn, J. B., and Hilmer, F. G. (1994) Strategic outsourcing. *Sloan Management Review*, 35, 43–55.

Rai, A., and Patnayakuni, R. (1996). A Structural Model for CASE Adoption Behaviour. Journal of *Management Information Systems*, 205-234.

Roza, M., Bosch, F., and Volberda, H.W. (2011). Offshoring strategy: Motives, functions, locations, and governance modes of small, medium-sized and large firms. *International Business Review*, 20, 314–323.

Sanins, S. M., Timbrell, J. A., Elcombe, C. R., and Nicholson, J. K. (1990). Hepatotoxin-induced hypertaurinuria: a proton NMR study. *Archives of Toxicology*, 64, 407-411.

Schumpeter, J. A. (1934). The theory of economic development. *London: Oxford University Press.*

Shrout, P.E., and Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.

Smith, M.A., Mitra, S., and Narasimhan, S. (1998). Information systems outsourcing: A study of pre-event firm characteristics. *Journal of Management Information Systems, Fall*, 15(2), 61-93.

Srivastava, S.C., Teo, T.S.H., Partha, S., and Mohapatra, P.S. (2008). Business-Related Determinants of Offshoring Intensity. *Information Resources Management Journal*, 21 (1).

Stevens, D. (2002). The effects of reputation and ethics on budgetary slack. *Journal of Management Accounting Research* 14, 153-171.

Stratman, J. K. (2008). Facilitating offshoring with enterprise technologies: Reducing operational friction in the offshoring entry and production of services. *Journal of Operations Management*, 26(2), 275–287.

Stringfellow, A., Teagarden, M. B., and Nie, W. (2008). Invisible costs in offshoring services work. *Journal of Operations Management*, 26(2), 164–179.

Tabachnick, B.G., and Fidell, L.S.(2001).*Using Multivariate Statistics (4th edn.)*

Taylor, S. E., and Aspinwall, L. G. (1996). Mediating and moderating processes of psychosocial stress. In Kaplan‟s Psychosocial stress: Perspectives and structure theory, life course and methods. *Academic Press.*

Thornhill, S. (2006). Knowledge, innovation and firm performance in high- and low-technology regimes. *Journal of Business Venturing*, 21, 687-703.

Tukey, J.W. (1958). Bias and confidence in not-quite large samples. *The Annals of Mathematical Statistics*. 29(2), 614.

Vivek, S. D., Banwet, D. K., and Shankar, R. (2008). Analysis of interactions among core, transaction and relationship-specific investments: The case of offshoring. *Journal of Operations Management*, 26(2), 180–197.

Wegener, D.T., and Fabrigar, L.R. (2000). Analysis and design for non-experimental data: addressing causal and noncausal hypotheses, in Reis, H.T. and Judd, C.M. (Eds), Handbook of Research Methods in Social and Personality Psychology. *Cambridge University Press, New York, NY,* pp. 412-50.

Westhead, P., Wright, M., and Ucbasaran, D. (2001). The internationalization of new and small organisations: A resource-based view. *Journal of Business Venturing*, 16(4), 333–358.

Whitaker, J., Mithas, S., and Krishnan, M.S. (2005). Antecedents of onshore and offshore business process outsourcing. D. Avison, D. Galletta, eds. Proceedings of the 26th International Conference on Information Systems (ICIS), Association for Information Systems, 85–96

Williamson, O. E. (1975). Markets and Hierarchies: Analysis and Antitrust Implications. A Study in the Economics of Internal Organization. New York: *The Free Press.*

Wolter, C., and Veloso, F.M. (2008). The effects of innovation on vertical structure: Perspectives on transaction costs and competences. *Academy of Management Review,* 33, 586-605.

Youngdahl, W., and Ramaswamy, K. (2008). Offshoring knowledge and service work: A conceptual model and research agenda. *Journal of Operations Management*, 26(2), 212–221.

Chapter 3

3   RESEARCH STUDY II: The relationship between the degree of offshoring and performance improvement: The effect of offshoring governance modes and task-level

Abstract

Offshoring is a phenomenon of increasing importance for organizations of different sizes and industries, but many of its implications are yet to be examined thoroughly. In particular, we ask what influence the offshoring governance mode has on performance improvement. We evaluate two types of governance mode from captive (i.e. wholly-owned subsidiary and joint ventures) and third party offshore outsourcing governance modes (contractual arrangement with third party provider). The effect of these governance modes on global sourcing decisions, especially offshoring, is empirically tested by analysing the direct effect of these modes on performance improvement. In addition, we test for the moderating effect on the relationship between the degree of offshoring and performance improvement. In doing so we also distinguish between two degrees of offshoring: (1) the degree of offshoring of high value-added tasks and (2) the degree of offshoring standardized- tasks

Using a primary data collected from 77 Australian organizations, the research findings, interrogated using PLS-based SEM analysis, clearly suggest that an organization which offshores high value-added tasks will favour the use of captive offshoring governance modes and that these captive modes have a positive direct and moderation influence on performance improvement. On the other hand, an organization which offshores standardized tasks will achieve a better result by using third party offshoring governance modes. These modes have a positive direct and moderating effect on performance improvement. The contributions of this study and implications arising from its findings are also discussed.

Keywords: degree of offshoring, performance improvement, offshoring governance modes, captive offshoring; offshore outsourcing, high value-added tasks, standardized tasks

3.1 Introduction

Offshoring relates to the tasks which are subcontracted to parties operating outside of the national borders of the offshoring party (cross-border) (Lewin & Volberda, 2011; Erber & Sayed-Ahmed, 2005). This includes offshore functions located within the organization's boundaries (i.e. captive offshoring), and external to the organization's boundaries (i.e. offshore outsourcing). While the former implies vertical integration though a captive subsidiary at foreign locations, the latter entails relocating activities to a third party, offshore service providers.

Recent contributions in offshoring literature have focused on the importance of analysing offshoring at a more disaggregated task-level (Jensen & Pedersen, 2012). Each function consists of many tasks, and it is necessary to consider the differences between the characteristics of these tasks to explain the offshoring governance mode. Furthermore, organizations rarely offshore a whole function like manufacturing, banking and finance, logistics, marketing, or research and development; they usually offshore some of the tasks related to these functions (Jensen & Pedersen, 2012). Therefore, this research paper, consistent with Jensen and Pedersen, 2012, proposes a disaggregated view focusing on the task- level instead of the function/activity level.

Organizations increasingly have regarded offshoring as an important means of achieving better performance (Jensen & Pedersen 2012; Massini, Perm-Ajchariyawong & Lewin, 2010; Aksin & Masini, 2008; Coucke & Sleuwaegen, 2008). The increase in offshored activities has significantly expanded to lower-wage countries (Gooris & Peeters, 2012; Trefler, 2005). This is true not only for relocating standardized tasks, but also for value-added and knowledge intensive tasks (Jensen & Pedersen, 2012; Ellram et al. 2008; Metters & Verma, 2008; Stratman, 2008; Stringfellow et al. 2008; Youngdahl & Ramaswamy, 2008; Volberda et al. 2007;Couto et al. 2006; Erber & Sayed-Ahmed, 2005). While offshoring of standardized tasks has a relatively long history, offshoring of high value-added tasks to lower-income countries is a relatively recent phenomenon (Lewin et al. 2009). Offshoring organizations have recently started offshoring "critical core competences" to achieve "external capabilities and transforming internal knowledge" (Prange and Manfred, 2009, p.1).

This phenomenon is attracting particular interest from scholars in various fields such as

international business, strategic management and marketing. This increasing interest is mainly due to its importance for the restructuring of organizational value chains (Jensen & Pedersen, 2012; Ellram, Tate & Billington, 2008; Kenney et al. 2009; Stringfellow et al. 2008; Westner & Strahringer, 2010; Youngdahl & Ramaswamy,2008). Lewin and Couto (2007) call this emerging line of research focusing on offshoring high value-added tasks "next-generation offshoring" (p.7).

Research in this promising area of innovation offshoring and outsourcing is still scarce and show mixed results (Prange and Manfred, 2009), with the few extant research papers examining the determinants and drivers of the decision to offshore high value-added tasks (e.g. Agostino et al. 2012; Jensen & Pedersen, 2012; Roza et al. 2011; Lewin et al. 2009; Manning et al. 2008). Apart from that, there are a few research papers examining the comparative effect of the degree of offshoring such value-added tasks versus traditional standardized tasks on performance improvement. Few research papers have investigated the influence of different offshoring governance modes used to offshore those two types of tasks and their effect on financial performance (Jensen & Pedersen, 2012).

The choice of offshoring governance modes is strategically important, especially since it is a choice that cannot be easily reversed (Agarwal & Ramaswami, 1992). Striking a balance between using a third party (i.e. non-captive offshoring) and captive offshoring to relocate different functions offshore can contribute to performance gains (Jensen & Pedersen; 2012; Manning et al. 2012; Roza et al. 2011; Rothaermel, Hitt & Jensen, 2009; Lewin et al. 2009; Jobe, 2006). Although the performance effects of both captive and third party offshoring governance modes are described conceptually, robust empirical evidence is lacking (Jensen & Pedersen, 2012; Massini Ajchariyawong & Lewin, 2010; Weigelt, 2009; Leiblein et al. 2002). Only a few authors have reported on the differing performance effects of captive offshoring and third party offshoring (e.g. Coucke & Sleuwaegen, 2008; Brouthers & Hennart, 2007).

Indeed, the few published works on offshoring governance modes, offshoring high value-added tasks versus standardized tasks and performance are almost all theoretical (Bardhan, 2006; Paju, 2007). Many scholars have lamented the lack of substantial research in this area (Bunyaratavej, Hahn & Doh, 2008; Doh, 2005; Dossani & Kenney, 2007; Kotabe & Murray, 2004; Manning, Massini & Lewin, 2008). Clearly, more research is needed to investigate this

important topic by providing empirical evidence and a discussion of the implications for both academics and managers.

A number of theories might be helpful in explaining the governance mode choice (Luo et al. 2012). Among the most commonly applied are transaction cost economics (TCE) (Coase, 1937; Williamson, 1975 and 1985) and the resource-based view (RBV) (Barney, 1991; Penrose, 1959; Vivek et al. 2008). These theories are used as the theoretical foundation for most of the published governance modes studies reviewed. Anderson & Gatignon (1986) applied a transaction cost framework for investigating the foreign entry mode decision. In this research paper, we follow Anderson & Gatignon (1986) approach that: "a low level of ownership is preferable until proven otherwise" (p.8). Although we argue that this approach is still valid for investigating the offshoring mode decisions, however since this approach is mainly based on weighing control and efficiency hence in our research we take into consideration the nature of the tasks offshored and its impact on the offshoring mode decision. We acknowledge the importance of considering the offshoring destination characteristics but it is beyond the scope of our research.

The contributions of the study are threefold. To begin, it is among the first to operationalise the effect of slicing value-chain activities depending on the character of each task (Jensen and Pedersen, 2012) on the offshoring activities and offshoring governance modes. Secondly, it is the first to test the effect of the degree of offshoring of high value-added tasks versus standardized tasks on performance improvement. Thirdly, it is the first to test the effect of both the captive offshoring governance modes and third party offshoring governance modes on the relationship between the degree of offshoring of high value-added tasks versus standardized tasks and performance improvement. Further, this paper presents some policy recommendations and implications for management on decisions to relocate value-added tasks, standardized tasks, the appropriate governance mode for relocating these two different groups of tasks abroad and their likely influence on performance.

This research paper contributes to the offshoring literature by answering the following four research questions: First, how do organizations govern the offshoring process? Second, is the performance of an offshoring organization associated with its degree of offshoring (high value-added tasks vs. standardized tasks)? In addition, is the performance of an offshoring organization associated with its offshoring governance mode (captive mode vs. third party

mode)? Third, how does the captive offshoring governance mode moderate the relationship between the degree of offshoring of (high value-added tasks vs. standardized tasks) and performance improvement? Fourth, how does third party offshoring governance mode moderate the relationship between the degree of offshoring of (high value-added tasks vs. standardized tasks) and performance improvement?

The structure of the paper is as follows. First, it reviews the recent literature of the relationship between offshoring and performance improvement. Second, it discusses the different types of offshoring governance modes and their effect on the relationship between the degree of offshoring and performance improvement. Third, we describe the research method, the data collection approach and the empirical models used to test a number of relevant hypotheses. Fourth, the paper analyses the results. Fifth, the paper discusses the findings. The paper's concluding section discusses implications, limitations and directions for future research.

3.2 Theoretical overview

Managers and decision makers are under pressure to implement an organizational configuration that achieves the best performance gain for the organization (Hutzschenreuter et al. 2011). This configuration has two aspects, first of which is the nature of the tasks offshored, second the governance mode for relocating these tasks (Jensen & Pedersen 2012; Hutzschenreuter et al. 2011; Roza et al. 2011). We examine both of these aspects and argue that each governance mode has its own set of specific parameters in terms of control level, risks involved, complexity and expertise required to implement (Hutzschenreuter et al. 2011), and suitability as to the nature of the relocated tasks (Roza et al. 2011; Li 1995).

There is no theoretical strand that by itself exhaustively explains the choice preference of using an offshoring captive mode versus a third party mode (Hutzschenreuter, Lewin & Dresel, 2011) for offshoring high value-added tasks versus standardized tasks (Jensen & Pedersen, 2012; Sako, 2006; Karmarkar, 2004; Kakabadse , 2005; Porter, 1985). Thus, the approach taken in this research paper is to build on the commonly adopted lenses of transaction cost economics (TCE) (Coase, 1937; Williamson, 1975 and 1985) to examine the governance mode choice to offshore tasks at different level of the value-chain. This approach

is particularly valuable in this context because of the offshoring co-ordination, control and hidden costs, which are implicitly different in captive and third party offshoring. The next section discusses the main aspects of this research paper and develops the hypotheses that are to be tested.

3.2.1   Transaction cost economics theory, offshoring tasks and offshoring governance modes

According to Jensen and Pedersen, (2012) organizations have recently been slicing their "value chain activities more finely into standardized tasks and value-added tasks to match each task with the optimal location and governance mode" (p.315). This fine slicing allows the organization to take advantage of different cost structures (transaction costs, labour and other costs) and resulting variances between home and host countries (Gooris & Peeters; 2012; Beugelsdijk, Pedersen & Petersen, 2009). In addition, the fine slicing of tasks will also enable organizations to reconfigure their business activities and operate more efficiently (Gooris & Peeters; 2012; Doh, 2005; Lewin & Peeters, 2006; Bunyaratavej, Hahn & Doh, 2008; Kedia & Mukherjee, 2009; Lewin, Massini & Peeters, 2009). In order to relocate different tasks of their value chains at the lowest cost possible, organizations must decide whether to use captive subsidiaries or third party providers (Hutzchenreuter, Lewin & Dresel, 2011).

This choice to "vertically integrate" or "outsource activities" of the value chain (Gooris & Peeters, 2012, p.2) forms part of the traditional approach to the *transaction cost economics framework* (TCE) (Coase, 1937; Williamson, 1975 and 1985). TCE and general cost structural approaches propose that an organization's decision as whether to vertically integrate an activity (make) or source it from the market (buy) is contingent on the level of transaction costs and other cost differences between onshore and offshore destinations. Consequently, organizations choosing to offshore tasks abroad choose the most cost-effective offshoring governance mode, minimising organising and co-ordination costs. This decision is arrived at through a comparison of costs: that required by the captive offhsoring governance mode, which entails coordination and hidden costs, or the expenditure required in a contractual agreement with a third party, ordinarily controlling costs and the costs so often

incurred by opportunistic behaviour on the part of the supplier (Williamson, 1991; Hennart, 1994).

The transaction cost economics model has been adapted to different forms according to circumstances. Anderson & Gatignon (1986) structured a transaction cost economics model specific to international activities. As stated by Gooris and Peeters (2012) this model has "three distinct pillars: the uncertainty, the asset specificity, and the frequency of the transaction" (p.6). The uncertainty factor is caused by cultural distance, country risk and the organization's lack of international experience, which leads to additional coordination and organising costs for every governance mode (i.e. captive versus third party) (Gooris & Peeters, 2012). The asset specificity factor denotes the degree of customisation of transactions (i.e. standardized versus high value-added) (Gooris & Peeters, 2012; McIvor, 2009) that can influence transaction costs. The frequency factor denotes the degree of recurrence of transactions, which can also affect transaction costs (Gooris & Peeters, 2012; McIvor, 2009).

The introduction of the value chain "slicing" concept (Buckley, 2009; Buckley & Ghauri, 2004 ; Jensen & Pedersen, 2012; Mudambi, 2008) and the offshoring of high value-added tasks led to a global reconfiguration of organizational value chains (Buckley & Ghauri, 2004; Contractor, Kumar, Kundu & Petersen, 2010). This reconfiguration evolved from the geographic dimension into the governance dimension (Gooris & Peeters, 2012), as organizations decide whether to use captive offshoring or third party service provider (Hutzschenreuter et al. 2011). Thus, to exploit the offshore locational advantages efficiently, in addition to labour costs, organizations must also choose the most appropriate governance mode (Gooris & Peeters, 2012). To make the right choice, organizations need to weigh the different costs associated with different governance modes. These costs include : (1) the costs of control over foreign offshoring functions, (2) the costs related to efforts and investments (both in terms of assets and human resources), (3) the costs related to the level of risks associated with those offshore projects (Gooris & Peeters, 2012; Hutzschenreuter et al. 2011), (4) the costs related to the potential opportunistic behaviour of the supplier (Williamson, 1991; Hennart, 1994), and (5) coordination costs between onshore and offshore activities.

Our conceptual model investigates the relationship between the degree of offshoring high value-added tasks versus standardized tasks and performance and the moderating influence of the offshoring governance modes (see Figure 3.1).

Figure 3-1: Conceptual model- offshoring, offshoring governance mode and performance improvement
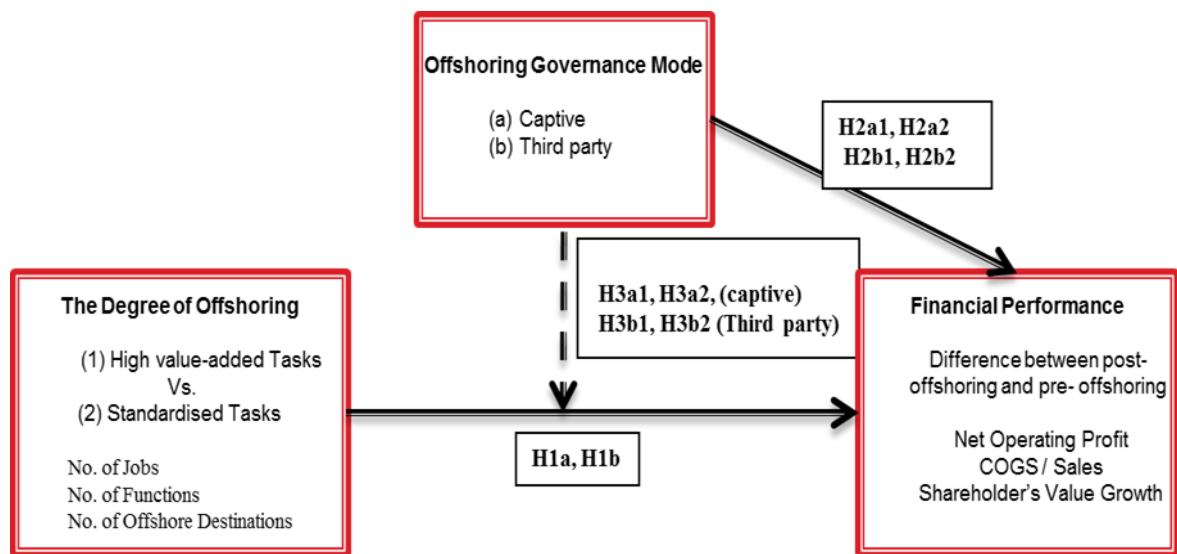
3.2.2 Value-added tasks versus standardized offshoring tasks and performance improvement

Within the offshoring context, analysing the organization's value-chain and disaggregating it into specific activities acts as a useful tool for the organization to distinguish between its critical core competences (Jensen & Pedersen, 2012) (high value-added tasks) and non-core competencies (standardized tasks) and thus regulate the offshoring process of these activities.

Different concepts in the literature exist for distinguishing between different tasks. Allen and Hauptman, (1994) differentiated between two types of tasks according to output characteristics: (1) the production task which needs limited labour and managerial resources and the (2) information-handling task to manage, organise, coordinate and develop the production tasks which usually needs a higher degree of specialisation. Reich (1991) distinguished between standardized tasks in low-wage economies and high value-added tasks in high-wage economies according to task characteristics.

Henderson and Cockburn (1994), drawing on the resource based and capabilities literature, proposed a distinction between "architectural" competences and "component" competences, distinguishing between organization's value chain activities that are made up of tasks that are

relatively high in value- adding and those that are relatively standardized and less complex. Tyre and Hauptman (1992) use the term "technical complexity" to refer to the relative novelty or sophistication of new equipment and its technical features that can also be applicable to high value-added tasks concept. Other scholars (e.g. Bardhan & Kroll 2003; Gereffi et al. 2005) have similar views regarding the task-complexity level and the likelihoods for transferring these complex tasks across organizations and locations boundaries (Jensen & Pedersen, 2012).

In addition, other scholars have distinguished between tasks according to the industry they belong to (i.e. manufacturing versus service) (e.g. Oliva & Kallenberg, 2003). This distinction features 'tangible' and 'storable' for products and 'intangible', 'non-storable' and 'co-produced with customers with instant consumption' for services (Jensen & Pedersen, 2012). However, several scholars (e.g. Karmarkar, 2004; Sako, 2006) argue that such definitions are no longer applicable to all organizational activities across sectors. This is because organizations are now likely to have a combination of products and service functions. Furthermore, the advances in information technology transforming services to become similar to manufacturing as processes can be standardized and data stored (Jensen & Pedersen, 2012; Sako, 2006). Moreover, organizations are providing services which are complementary to the products they sell, such as repairs and after-sales maintenance, upgrading or systems integration solutions (Sako, 2006; Oliva & Kallenberg , 2003). Hauptman, (1986) concluded that software development is not any more a notion for programming as there are many additional services related such as design, maintenance, validation, documentation and many others.

Therefore, the main features distinguishing between different functions/activities are not whether they belong to the categories of manufacturing or services activities. However the distinction is based on: (1) whether they belong to less advanced versus more advanced tasks (Jensen & Pedersen, 2012); (2) whether their execution requires low-skilled or high skilled labour and whether those activities are standardized or customised (Sako,2006); and (3) whether they involve simple versus complex processes (Karmarkar, 2004). Similarly, Drucker (1959) and Reich (1991), underscore that value-added tasks are mainly conducted by knowledge workers, i.e. staff with a relatively high level of education.

Hence, the distinction we make is between relatively *standardized tasks* and *high value-added tasks*.

Table 3.1 provides a list of ten different types of functions, distinguishing between various involved tasks on a scale from standardized tasks to high value-added tasks. The definition and listing of activities are based on a previous study by Jensen and Pedersen (2012) and is quite similar to the methodology adopted by other studies, such as the Offshoring Research Network (ORN) project (e.g. Heijmen et al. 2009).

Roza et al., (2011) has confirmed the positive influence of offshoring of high value-added tasks on firm growth. The volume expansion of the core and critical activities enable the offshoring organization to accesses important knowledge at offshore locations, which can lead to increasing firm growth. In addition, offshoring of advanced activities leads to process innovation, which positively influences financial performance (e.g. He & Wong, 2004; Nicholson et al. 1990; Thornhill, 2006).

Hence, we hypothesise that the degree of offshoring of high value-added tasks is likely to have a significant direct effect on performance improvement.

Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.*

However, many researchers investigating the offshoring of simple services such as call centre and back office tasks, which require low-skilled labour, have been unable to prove any definite relationships between the extent of offshoring and firm performance (Bhalla, Sodi, & Son, 2008). Therefore, we hypothesise that:

Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.*

Table 3-1: offshoring standardized tasks versus high value-added tasks

Functions/jobs offshored	Standardized tasks	High value-added tasks
Call centre / customer contact.	Call centre.	Call escalations, complaint and contact resolution, advanced technical support.
Engineering services.	Digitisation of drawings.	Software engineering, telecommunications.
Finance/accounting.	Bookkeeping, billing.	Accounting, financial management, and business and tax advisory services
Human resources.	Payroll.	Recruitment, training, productivity and performance review.
Legal services.	Legal transcription.	Paralegals, legal advice.
Manufacturing.	Volume production, assembling.	Prototype, product design, customer-made, unique production.
Marketing and sales.	Telemarketing, printing.	Advertisement, branding, market analysis.
Procurement.	Purchasing.	Supply chain management.
Research and development.	Data collection, preparation of test patches, data management, trials and patenting.	Field tests, analysis, new inventions.
Software development.	Testing, prototypes, programming.	Software design, system integration, and troubleshooting.
Source: derived from Jensen and Pedersen (2012)		

3.2.2 Captive governance mode versus third party governance mode

Initially, most outsourcing was intra-national. However, because the globalisation of markets and the increased digitalisation of value-creating activities have reduced the difficulties associated with managing distant operations, organizations have made greater use of captive and offshore outsourcing (i.e. third party) (Cantwell & Santangelo, 1999). These days, to pursue international sourcing activities, organizations can select different offshoring governance modes (Roza, et al., 2011). Research distinguishes three offshoring governance modes (Luo et al. 2012; Hutzschenreuter et al. 2011); First is captive mode, which allows full ownership and control. Second, the hybrid mode, which comprises shared ownership, such as in the case of joint-ventures and build-operate-transfer arrangements. Third, the offshore outsourcing governance mode (external third party), which lacks ownership with limited control and usually contractual in nature.

In a captive offshoring governance mode, an organization is in full control of the process of offshoring. This includes setting-up a wholly-owned subsidiary in the host country, recruiting and training and managing new employees (Hutzschenreuter, Lewin & Dresel, 2011; Roza et al. 2011; Kaka, 2003; Vermeulen & Barkema, 2002).On the other hand, an offshore outsourcing governance mode uses an external third party provider. In this mode, the major control mechanism is based on a contractual agreement.

In addition to the two most-frequently used governance modes (i.e. captive and third party), there is also joint venture and build-operate transfer arrangement. In a network relationship, governance via various contractual modes, allows the firm to save on capital and reduce level of uncertainty (Vahlne & Johanson, 2013). These models were not explicitly tested in our analysis and it will be interesting to examine the applicability of such mode to the offshoring process.

However, the disadvantages of these two modes outweigh their advantages. Specifically, there are significant resource and experience requirements, which are necessary to: (1) identify a suitable partner, (2) adapt to the new partner and negotiate the offshoring contracts (Woodcock et al. 1994), (3) align their strategic objectives, policies and management (Boateng & Glaister 2002; Woodcock et al. 1994; Yigang & Chi 1999). Therefore, some scholars claim that these modes are inherently inefficient because of the 'liability of outsidership' (Ivarsson and Alvstam, 2013, p.569) and the complex nature of the management relationships (Hutzschenreuter, Lewin & Dresel, 2011; Boateng & Glaister 2002; Pangarkar & Lim 2003) and therefore they are rarely seen in offshoring operations (Hutzschenreuter, Lewin & Dresel, 2011; Lewin & Couto, 2007).

Hence, organizations with this joint-venture mode are added to the captive offshoring mode. Consequently, we divide offshoring governance modes into two categories distinguishing between captive offshoring and non-captive (offshore outsourcing/third party) (UNCTAD, 2004), distinguishing between full and shared ownership on the one hand and no ownership models at the other hand (see Table 3.2).

Table 3-2: Offshoring governance modes

Code	Modes	Categorisation(Anderson & Gatignon, 1986)
1	Captive	Captive mode: Full ownership model
2 and 5	Local and international Joint venture (JV)	Captive mode: Shared ownership model
3 and 4	Local and international third party	Third party mode : - No ownership model

3.2.4 Effect of offshoring governance modes on performance improvement

The decision to offshore through a captive governance mode (owned-subsidiaries) or a third party governance mode (external foreign suppliers) has strategic implications for organizations (Kedia & Mukherjee, 2009; Mudambi, 2008).
Although the performance effects of the captive governance mode and third party governance mode have been described conceptually and empirically tested, robust empirical evidence is still arguable (e.g. Brouthers & Hennart, 2007; Leiblein et al. 2002). Only a few authors report on the performance effects of captive offshoring (Massini et al. 2010; Coucke & Sleuwaegen, 2008) and on the performance effects of third party offshoring (Massini et al., 2010). Massini et al. (2010) have confirmed the positive influence of the captive offshoring mode on cost savings for American organizations and the positive influence of the third party offshoring mode on cost savings for European organizations taking into consideration cultural differences.

Prior research shows that it is unlikely that one type of offshoring governance mode (e.g. captive or third party) can successfully deal with all forms of offshoring. Each offshoring governance mode involves different related sets of capabilities (Roza et al. 2011; Connor & Prahalad, 1996). The transfer of a function to a host country is a manifold challenge and has advantages and disadvantages (Hutzchenreuter, Lewin & Dresel, 2011; Manning et al. 2011). The different offshoring governance modes require different levels of adaptation to foreign partners (Barkema et al. 1996). Moreover, control issues might be more complicated for captive offshoring governance modes (Gilley & Rasheed, 2000) due to different dimensions of home-host country distances (i.e. geographic, cultural and institutional) (Gooris & Peeters, 2012). Penter, Wreford, Pervan, and Davidson (2013), using an empirical case study approach to explore the governance mode decisions made by the offshore BPO, concluded that the captive governance mode is still provides many advantages for the offshoring of "knowledge services". Some of these advantages "arise from higher levels of relationship quality, trust and collaboration and from easier knowledge capture and transfer" (p.109).

Thus, offshoring governance modes (i.e. captive and third party) can have a considerable effect on the success of an offshoring arrangement (Hutzschenreuter, Lewin & Dresel, 2011).

3.2.5 Interaction between offshoring tasks, governance modes and performance improvement

The offshoring governance mode can have a considerable effect on the success of offshoring implementation (Hutzschenreuter, Lewin & Dresel, 2011). Achieving success depends on matching the nature of the tasks offshored with the offshoring governance mode used for relocating these tasks (Jensen & Pedersen 2012; Hutzschenreuter et al. 2011; Roza et al. 2011). A further important feature, which is not thoroughly covered in the literature, is if the task aggregates require close interaction with each other. Hauptman, (1986) confirmed that if the tasks are highly aggregated, the coordination requirements will increase and closely controlled interaction is a strong prerequisite of product/service quality level. Thus, balancing between using a third party mode (i.e. non-captive offshoring) or captive offshoring mode and the task nature is thought to be important for performance gains (Jensen & Pedersen; 2012; Manning et al. 2012; Roza et al. 2011; Rothaermel, Hitt & Jensen, 2009; Lewin et al. 2009; Jobe, 2006).

An organization which already has extensive offshoring experience and adequate resources to handle an offshoring operation and its challenges does not necessarily need to involve a third party service provider and the organization might decide in favour of a captive offshoring governance mode, especially in the offshoring of high value-added tasks (Nieto & Rodríguez, 2011). On the other hand, organizations without any international experience, or the knowledge and expertise required to handle the foreign entry process of relocating, managing, coordinating and controlling the foreign implementation (Gatignon & Anderson 1988) are likely to benefit by involving a third party external partner for the offshoring of standardized tasks (Gregorio et al. 2009).

The following are some of the comparative cost advantages of the captive offshoring governance mode and the third party offshoring governance mode leading into our hypothesis development. First, the captive offshoring governance mode allows a higher-level control over the offshored tasks compared to third party offshoring governance mode. This prevents dependency on the third party provider, who might react opportunistically, leading to high control costs (Williamson, 1991; Hennart, 1994; Hilmer 1994; Razzaque & Cheng 1998). The transfer of high value-added tasks from the organization to the third party supplier may provide the latter with valuable information, which it can then misuse to become a future

competitor (Pisano, Russo & Teece, 1988). Second, captive governance prevents valuable information leakage. The transfer of high value-added tasks to a third party provider has a consequent risk of making organizations' exclusive strategic knowledge widely available to the market. This can negatively influence the offshore organization competitive advantages (Pisano, 1990). Third, captive governance can minimise the problems that result from uncertainty and misspecification (Ellram et al. 2008; Lai, Riezman & Wang, 2009) leading to control and other hidden costs. Fourth, captive governance prevents bargaining threats, which lead to other sources of hidden transaction costs (Nieto & Rodríguez, 2011; Pisano, 1990). Fifth, captive governance lowers the organization's risk of losing its competitive bases (Kotabe, Mol & Murray, 2008) by preventing over-dependency on third party providers. Over-dependency on third party providers can cause organizations, those mainly offshore high added-value tasks, to lose their capacities to respond and thus fall behind new technologies in the medium to long term with the consequent loss of innovation capability (Paju, 2007). Therefore, the difficulties of regulating the transfer of high value-added tasks and the potential for opportunistic behaviour by a third party favour using the captive governance mode (Nieto and Rodríguez, 2011; Robertson & Gatignon, 1998). Therefore, we hypothesise that captive offshoring governance modes can have a direct and moderating positive effect on performance improvement for organizations offshoring high value-added tasks.

Hypothesis 2a1: *The use of captive offshoring governance modes has a positive direct effect on performance improvement for organizations offshoring high value-added tasks.*
Hypothesis 3a1*: The use of a captive offshoring governance mode **positively** moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

However, a captive governance mode has disadvantages that might offset the previously identified advantages: First, organizations have to invest significant financial and managerial resources to establish offshore operations (Pangarkar & Lim 2003; Woodcock et al.1994) which leads to high set-up costs and high labour costs. Second, organizations require a longer time to achieve their targets (Hutzschenreuter, Lewin & Dresel, 2011). Third, organizations have to handle all the challenges and problems on their own, creating higher coordination and hidden costs. This means that using the captive governance mode, will likely lead to the early onset of inefficiencies and a lack of effectiveness in offshoring standardized-tasks. Therefore, more hidden costs arise, expected cost savings are diminished or wiped out and the expected

time to achieve the service level is most likely prolonged (Hutzschenreuter, Lewin & Dresel, 2011). These disadvantages make the captive governance mode an ineffective and inefficient option to offshore standardized tasks.

Therefore, we assume that both captive governance modes have a direct and moderating negative effect on performance improvement for organizations offshoring standardized tasks.

Hypothesis 2a2: *The use of captive offshoring governance modes has a negative direct effect on performance improvement for organizations offshoring standardized tasks.*

Hypothesis 3a2: *The use of a captive offshoring governance mode **negatively** moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

Third party governance modes also have their disadvantages and advantages. A third party governance mode has disadvantages that might offset the efficiency advantages (Levy 1995; Rasheed & Gilley 2005; Schilling & Teensma 2002). The most prominent of these disadvantages is the potential for an increase in the risk of losing control over the offshored activities. This may result in a dependency on the provider who might react opportunistically leading to higher control costs (Williamson, 1991; Hennart, 1994; Hilmer 1994; Razzaque & Cheng 1998). This can be crucial in the case of offshoring high value-added tasks and could negatively affect offshoring organization performance. Second, third party governance may result in a loss of expertise and competence in specific tasks or valuable knowledge by disseminating this to the market (Leiblein et al. 2002). Third, this form of governance mode may involve more efforts for coordination and information exchange with the third party provider (Rasheed & Gilley, 2005) which consequently leads to higher coordination costs. Hence, these disadvantages make the third party governance mode an ineffective and inefficient option for the offshoring of high-value-added tasks. Therefore, we hypothesise that third party offshoring governance modes have a direct and moderating negative effect on performance improvement.

Hypothesis 2b1: *The use of third party offshoring governance modes has a negative direct effect on performance improvement for organizations offshoring high value-added tasks.*

Hypothesis 3b1: *The use of a third party offshoring governance mode **negatively** moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

On the other hand, third party governance modes also have their advantages: First, this mode

allows a convenient low-commitment alternative (Maskell et al. 2007). Second, this mode offers a better understanding of the offshoring destination environment (Gooris & Peeters, 2012). Third, this governance mode allows more expertise and specialised knowledge about offshoring projects and can allow operations on a larger scale (Chalos & Sung 1998; Heikkilä & Cordon 2002; Prahalad & Hamel 1990). Fourth, this mode of governance allows faster implementation, which can shorten the required period for organizations to achieve their targets (Hutzschenreuter, Lewin & Dresel, 2011).

Therefore, we hypothesise that third party governance mode can have a direct and moderating positive impact on performance improvement.

Hypothesis 2b2: *The use of third party offshoring governance modes has a positive direct effect on performance improvement for organizations offshoring standardized tasks.*

Hypothesis 3b2: *The use of a third party offshoring governance mode **positively** moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

3.3 Methodology and variables

3.3.1 Sample and data collection

This study examines the choice of offshoring governance modes and the resulting direct and moderating effect of such choices on the relationship between the degree of offshoring and performance improvement based on a primary source of data collection. The data was collected from Australian-based organizations through an online survey followed by twenty to thirty minute phone interviews between February 2010 and March 2011. The resulting preliminary questionnaire was cross-checked by 3 business professors with experience in offshoring research. Pilot tests were performed for instrument validity, with the assistance of 25 offshoring CEOs whose constructive feedback helped us to reframe ambiguous or inaccurate questions. This survey was conducted in conjunction with the ***ORN (Offshoring Research Network).***

The following steps were followed for sample selection and data collection. First, a random sample of 1,000 Australian organizations in the manufacturing and service sectors was extracted from Dun and Bradstreet (a global commercial database which contains more than 205 million business records). Second, they were invited to complete an online survey hosted on a commercially available software package (i.e. Survey Monkey). Third, twenty to thirty minute interviews were conducted with the managers responsible for decisions related to offshoring or international activities in each of the selected organizations. In these interviews, the research nature of the project was disclosed to the interviewees. Conversely, to protect the confidentiality of the information, neither the name of the interviewee nor those of the organizations were disclosed to anyone other than the authors of this study. Finally, as a fourth in order to increase the response rate another round of data collection and interviews were conducted. At the end of the process, 201 completed surveys were obtained, including 77 from organizations which are currently offshoring, which were retained for statistical analysis.

3.3.2 Variables and measures

3.3.2.1 Dependent variable - Financial performance

To avoid the vagaries of short-term fluctuations in performance we use a longer-term orientation to measure offshoring performance in this study by asking the respondents to report on the results over a period of six years (i.e. one year before the offshoring announcement and five years after the offshoring announcement). This multi-dimensional approach measures three dimensions of offshoring performance: (1) net operating income, (2) cost of goods sold as a percentage of sales, (3) shareholder's value growth rate. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

Performance values for offshoring organizations were tabulated for six years for each organization from one year pre-offshoring (Year -1) to five years post-offshoring (Year +5). We then computed the improvement in performance as the difference in values between Year +5 and Year-1:

$$\Delta \textbf{Performance = (Value)j} - \textbf{(Value)i ,} \text{ where i = Year -1 and j = Year 5}$$

Many previous studies have used a similar approach for measuring the change in performance (e.g. Srivastava et al. 2008 and, Smith et al. 1998). Please refer to Table 3.7 for variables construction and measurements.

3.3.2.2 Independent variables

3.3.2.2.1 The degree of offshoring

Previous research studies in the offshoring literature do not provide information about the quantitative scope of offshoring (Jabbour, 2010; Doh et al. 2009; Srivastava et al. 2008; Jensen, Kirkegaard & Laugesen, 2006; Levy, 2005). Rather, a yes/no measure of whether or not there is offshoring is provided. Previous offshoring studies in different contexts have stressed the importance of considering the intensity or degree of offshoring implementation to assess the true effect (Jabbour 2010; Doh, Bunyaratavej & Hahn 2009). Therefore, the independent variable used in this study is the degree of offshoring. We define it as the amount of production or service transferred by the organization from its parent country to a foreign destination. To operationalise the degree of offshoring (DEG OFF), we use three components: *the number of jobs offshored as a percentage of total jobs*, the *number of tasks offshored as a percentage of total tasks and the number of offshoring implementations as a percentage of total implementations*. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

Since organizations are starting to offshore *higher value-added tasks* (Lewin & Peeters, 2006) as well as *standardized tasks* (Jensen & Pedersen, 2012), we distinguish between these two types of tasks, very different in nature and characteristics. In line with Jensen and Pedersen (2012, 2007) and Cantwell (2005), we define high value-added tasks as the more complex, innovative and qualified tasks, which the offshoring organization may not have the possibility to perform in the home country. On the other hand, we define standardized tasks as simple, standard and routine office work and services with the lowest entry barriers in terms of skills, scale and technology.

We created two variables to measure the degree of offshoring at task-level. The degree of offshoring of high value-added tasks (DEG HVA) is measured by the number of high skilled jobs, the number of more advanced tasks and the number of implementations / projects for offshoring more advanced activities. The degree of offshoring of standardized tasks (DEG STD) is measured by the number of low skilled jobs, the number of less advanced tasks and the number of implementations/projects for offshoring less advanced activities. The independent variable data was collected from our online survey.

3.3.2.2.2 Offshoring governance modes

Organizations might use a captive (wholly-owned subsidiary) or an offshore outsourcing (i.e. third party) mode (Couto et al. 2006; Manning et al. 2008; UNCTAD, 2004) in order to control an offshore operation. For every offshoring implementation, organizations indicated what offshoring governance modes they employed. The offshore third party mode was coded as 0 and the captive mode as 1. Organizations may offshore to an Australian, international or local offshore third-party or use the build- operate-transfer option and these mode choices are captured under the offshore outsourcing mode (non-captive). Captive offshoring uses a wholly owned subsidiary or a local or international joint venture. Our analysis uses a dummy variable = 1 for captive implementations (CPT) (i.e. wholly-owned subsidiaries and joint ventures) and 0 for third party offshoring (NCPT) (local and international third party and build-operate transfer).

3.3.2.3 Control variables

3.3.2.3.1 International experience

In the international business literature, research in internationalisation has long focused on questions of experience in international location and governance modes choice. Hahn et al. (2009) concluded that both organization-specific and industry wide learning prompts organizations to explore increasingly distant and challenging markets. Organizations with greater international experience are therefore likely to offshore more. To measure international experience (INT_EXP), we used the total number of years the organization has

been systemically involved in international engagements was used to differentiate between sporadic (infrequent) experience and regular experience.

3.3.2.3.2 Organization age

We measure organization Age (AGE) using the natural logarithm of the number of years an organization has been in existence (Mihalache et al. 2012). Organization age has been identified as a potential control variable since it has contradictory effects on the offshoring decision. Older organizations are less likely to explore new ventures outside their boundaries (Zahra, 1991) than younger organizations due to inertia and sunk costs in ongoing operations. However, older organizations enjoy a wider network of relationships with organizations in and outside their boundaries and industries and possess more intensive experience gained from learning over time (Pelegrín & Bolancé, 2011) which can be helpful through the offshoring process.

3.3.2.3.3 Organization size

The size of an organization is a fundamental control variable for most international studies. Organization size plays a vital role in determining the organization's strategy and has always been of great significance for scholars (e.g. Hutzschenreuter et al. 2011; Roza et al. 2011; Pan & Li 2000). In this study, organization size was measured by number of employees, which is a commonly used measure in the literature (e.g. Hutzschenreuter et al. 2011; Gatignon & Anderson 1988). Larger organizations have more resources and the advantage of increased financial power to achieve economies of scale compared to smaller organizations.
In a recent study about offshoring advanced tasks, Jensen and Pedersen (2012) concluded that there is no evidence that large organizations offshore high value-added tasks to a greater extent than smaller organizations do but they did mention the explanatory importance of looking at the size effect. On the other hand, Nieto and Rodríguez (2011) found that size is significant in relation to offshoring research and development (R & D).

The (SIZE) variable is operationalised by using the natural logarithm of number of employees working for the respective organization in its home country. Logarithmic transformation was used not only because it makes the results easier to interpret, but also because the changes in

the logarithm domain represent relative (percentage) changes in the original metric and make the distribution of the data closer to normality. We realise that this measure can be criticised, as it does not account for trends towards temporary employment and employees at outsourcers for the organization. However, it is an indicator of the resource base under the ownership control of the organization. In addition, it shows to what extent an organization has overheads, implying the need for administrative efficiency in order to reduce costs (e.g. Lewin & Couto, 2007).

3.3.2.3.4 Industry sector

Organization choices and performance are controlled by the industry in which an organization operates (Massini, Perm-Ajchariyawong & Lewin, 2010). Due to the differences in the modus operandi of the manufacturing and services organizations, we expect that the importance of implementing a certain offshoring strategy will vary according to industry sector (Roza et al. 2011).

Several scholars have examined host country industry structure as a barrier affecting governance mode choice (Jensen & Pedersen, 2012; Brouthers & Hennart, 2007; Chen & Hennart, 2002; Elango & Sambharya, 2004; Somlev & Hoshino, 2005). Lewin et al. (2009) showed that organizations in different industries (i.e. software and programming, information technology services, health / biotech / pharmaceutical, manufacturing, and technology, professional services, financial services) differ in their proportion of product development offshoring. Luo et al. (2012), in a study about preferred offshoring modes, concluded that organizations in different industries favour different offshoring governance modes.

To control for industry sector (INDUST), the organizational data was divided into five sectors based on the North American Industry Classification System (NAICS). A dummy variable was created for each sector (Contractor et al 2007; Chiao & Li 2009): manufacturing and industrial, wholesale and retail trade, services, banking, finance, real estate, and information. These five sectors (see Table 3.3) comprehensively cover almost all the manufacturing and service industries in Australia. Such industry controls have been used in past outsourcing/offshoring studies such as Brynjolfsson et al. (1994) and Whitaker et al. (2005).

Table 3-3: Industry sectors created as a control variable

Code	Label	Industry
4	MANUF	Manufacturing, engineering and industrial
12	BFSI	Banking, financial services and insurance
8	RETAIL	Whole sale/retail
16,18,19	SERVICES	Professional, technology, health
21	OTHER	Real estate and information

Due to sample size restrictions, in this research organizations in different industries were aggregated into two groups: services (i.e. banking and financial services, whole sale/retail, professional technology and health and real estate and information) and manufacturing (i.e. manufacturing, engineering and industrial). This research used a dummy variable (IND_SERV) to distinguish the two groups: 1 for offshoring services, 0 for offshoring manufacturing.

3.3.3 Analysis method

3.3.3.1 Conceptual models

Six different conceptual models were created and used to test the eight identified hypotheses using Partial Least Squares Structural Equation Modelling (PLS) using WarpPLS 3.0 software (Kock, 2012).

- Model 1 examines the effect of the degree of offshoring of high value-added tasks on *performance improvement*;

  Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.*

  Model 2 examines the effect of the *degree of offshoring* standardized-tasks on *performance improvement*;

  Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.*

- Model 3 examines the direct effect of the *captive offshoring governance modes* on performance improvement. Model 3 also examines the moderating effect of captive governance modes on the relationship between the degree of offshoring of high value-added tasks and performance improvement;

Hypothesis 2a: *Captive offshoring governance mode positively affects performance improvement.*
Hypothesis 3a1: *Captive offshoring governance mode positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

- Model 4 examines the direct effect of the *captive offshoring governance modes* on performance improvement. Model 4 also examines the moderating effect of captive governance modes on the relationship between the degree of offshoring of standardized tasks and performance improvement;

Hypothesis 3a2: *Captive offshoring governance mode negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.*

- Model 5 examines the direct effect of the *third party offshoring governance modes* on performance improvement. Model 5 also examines the moderating effect of third party governance modes on the relationship between the degree of offshoring of high value-added tasks and performance improvement;

Hypothesis 2b: *Third party offshoring governance mode negatively affects performance improvement.*

Hypothesis 3b1: *Third party offshoring governance mode negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

- Model 6 s examines the direct effect of the *third party offshoring governance modes* on performance improvement. Model 6 also examines the moderating effect of third party governance modes on the relationship between the degree of offshoring of standardized tasks and performance improvement;

Hypothesis 3b2*: Third party offshoring governance modes positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement*

3.3.3.2 Structural equation modelling

Structural equation modelling (SEM) allows a researcher to find answers to a set of questions at once by modelling the different relationships at the same time. These relationships can be modelled through several independent and dependent constructs using the same model (Bagozzi & Fornell, 1982; Gefenet al. 2000). SEM techniques can be covariance-based, such as that used by LISREL, or variance-based such as that used in Partial Least Squares (PLS) analysis.

WarpPLS 3.0 is used in this study as a regression and path model. This software is different from other PLS software in that it is able to identify nonlinear relationships among the latent variables of the model. The software can conduct a Warp PLS regression, robust path analysis or a standard PLS regression analysis. For this study the most stable results were derived from the PLS regression analysis using a jack-knifing resampling technique (Quenouille, 1949; Tukey, 1958) which serves our small sample size (Chiquoine & Hjalmarsson, 2009; Osborne, 2008).

3.3.3.3 Moderation effect

The analysis also examines the moderating effect of captive offshoring governance modes and third party offshoring governance modes (moderators) on the strength of the relationship between the degree of offshoring high value-added (predictor) and performance improvement (outcome) as well as on the strength of the relationship between the degree of offshoring-standardized tasks (predictor) and performance improvement (outcome).

3.4 Analysis and results

3.4.1 Descriptive statistics

The breakdown of the overall sample of 77 organizations by industry sector of these organizations is shown in figure 3.2. The three main industries represented are banking, financial services and insurance (29%), infrastructure (23%) and professional services (16%). The sample is heavily biased towards small to medium-sized organizations (50-200

employees).

Figure 3-2: Sample breakdown by industry sectors

Sample Breakdown by Industry Sectors

Professional services, 16%
Technology, 9%
Infrastructure, 23%
Manufacturing, 14%
Retail, 5%
Banking Financial Services & Insurance, 29%
Healthcare & Life Sciences, 4%
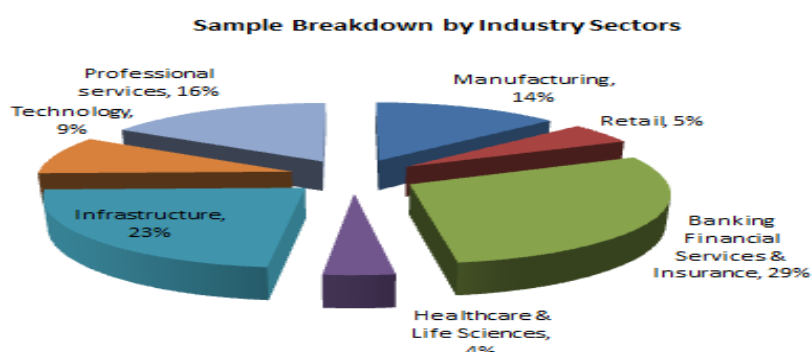
Table 3.4 shows the breakdown of the offshoring governance modes across the offshored functions. The breakdown shows that 46 % of the offshoring governance modes used are captive (i.e. 45% fully owned subsidiaries and 1% joint-ventures). On the other hand, 54% of the offshoring governance modes used are third party governance modes (i.e. 38% local third parties, 15% international third parties and 1% build-operate-transfer modes). Table 3.4 also shows that 31 % of the offshored functions are call centre/customer contact (100% third party) , 20 % finance and accounting (83% captive mode and 17% Third party), 17% software development (100% captive), 13% engineering services (77% captive and 23% third party), 9% procurement services (100% third party), 7% marketing and sales (100% third party), in addition 3 % to other services : legal services (100% captive), human resources (100% third party) and research and development(100% captive).

Table 3.5 shows the breakdown of the offshoring governance modes used to offshore high value-added tasks and standardized tasks. The breakdown shows that 217 offshoring tasks (29%) are high value-added tasks, 759 (71%) are standardized offshoring tasks. Out of the 217 high value-added offshoring tasks: 74% are offshored using a captive governance mode and 26% are offshored using a third party governance mode. On the other hand, out of the 759 standardized offshoring tasks: 13% are offshored using a captive governance mode and 88% are offshored using a third party governance mode.

Table 3-4: Offshoring governance modes across functions

Offshoring Mode across Offshoring Functions							
		Captive	Joint-venture	International third party	Local third party	Build operate transfer	Total	% Offshored Functions
No Functions Offshored								
Legal Services		1	0	0	0	0	1	0.50
Human Resources			0	0	1	0	1	0.50
Marketing and Sales			0	11	3	0	14	6.97
Finance/Accounting		33	0	0	7	0	40	19.90
Software Development		35	0	0	0	0	35	17.41
Call centre / Customer Contact			0	20	42	0	62	30.85
Research and Development		3	0	0	0	0	3	1.49
Engineering Services		18	2	0	5	1	26	12.94
Procurement			0	0	19	0	19	9.45
Total Offshoring Governance Mode		90	2	31	77	1	201	100.00
% Offshoring Governance Mode		44.8	1.0	15.4	38.3	0.5	100.0	

Table 3-5: Offshoring governance modes used to offshore tasks

Offshoring Mode across Offshoring Tasks (high value-added versus standardised tasks)					
		Captive	Third Party	Total Tasks	% Offshored Functions
High value-added tasks					
Legal Services		2	0	2	0.92
Human Resources			2	2	0.92
Marketing and Sales			0	0	0.00
Finance/Accounting		36	0	36	16.59
Software Development		90	0	90	41.47
Call centre / Customer Contact			54	54	24.88
Research and Development		9	0	9	4.15
Engineering Services		24	0	24	11.06
Procurement			0	0	0.00
Total Offshoring Governance Mode		161	56	217	100.00
% Offshoring Governance Mode		74.2	25.8	100.0	
Standardised tasks					
Legal Services		0	0	0	0.00
Human Resources			5	5	0.66
Marketing and Sales			102	102	13.44
Finance/Accounting		66	0	66	8.70
Software Development		15	0	15	1.98
Call centre / Customer Contact			480	480	63.24
Research and Development		8	0	8	1.05
Engineering Services		6	20	26	3.43
Procurement			57	57	7.51
Total Offshoring Governance Mode		95	664	759	100.00
% Offshoring Governance Mode		12.5	87.5	100.0	

3.4.2 Multicollinearity

Multicollinearity is present when the factors which are supposed to measure different variables, are actually measuring the same variable (Kline, 2009). Serious multicollinearity problems may lead to deviation in the estimation of the relationship between the dependent and independent variables (Stevens, 2002; Tebachnick & Fidell, 2001). Tables 3.8 to 3.13 (please refer to appendices), show that all correlations among latent variables for the eight tested hypotheses are below 0.80, signifying no serious problem of multicollinearity in our data (Gujarati, 2003). However, to be as confident as possible, we tested for multicollinearity among the independent variables by examining the Variance Inflation Factor (VIF), the results for which are given in the above-mentioned tables along the correlations.

The variance inflation factor (VIF) measures the effect of collinearity among the predictors in the model. In other words, it expresses the degree to which collinearity among the predictors degrades the precision of linearity, this is not a significant problem if the value of VIF is below 10 (Allison, 1999; Belsley, Kuh & and Welsch, 1980; Stevens, 2002). In our case, the VIF values for all the independent variables are below or equal to five (Pedhazur, 1997), which is the conservative limit for multicollinearity. Hence, we conclude that there is no significant problem of multicollinearity among the independent variables in our study.

3.4.3 Validity

Tables 3.8 to 3.13 show latent variable correlations, and the P values associated with those correlations for all models. The square roots of the average variances extracted (AVE) on the diagonal, to demonstrate that each measurement instrument passes widely accepted criteria for discriminate validity assessment. To achieve acceptable discriminate validity, the square root of the average variance extracted should be higher than any of the correlations involving that latent variable (Fornell & Larcker, 1981). As can be seen in Tables 3.8 to 3.13, the individual square roots of the AVEs are higher than any of the correlations shown below them. Therefore, it can be said that these constructs exhibit discriminate validity.

Combined standardized loadings and cross-loadings are provided in Tables 3.14 to 3.19 (appendices) with each cell referring to an indicator-latent variable. Latent variable names are listed at the top of each column, and indicator names at the beginning of each row. In these

tables, the loadings are from a structure matrix (i.e. unrotated), and the cross-loadings from a pattern matrix (i.e. rotated). Since loadings are from a structure matrix, and unrotated, they are always within the -1 to 1 range. This obviates the need for a normalisation procedure to avoid the presence of loadings whose absolute values are greater than 1. The expectation here is that loadings, which are shown within parentheses, will be high; and cross-loadings will be low, which has been the case in our table. P values are also provided as validation parameters of a confirmatory factor analysis. The table of combined loadings and cross-loadings has been used in this study to describe the convergent validity of our measurement instrument. In this respect, two criteria were used as the basis for concluding that a measurement model has acceptable convergent validity: that the P values associated with the loadings be lower than 0.05; and that the loadings be equal to or greater than 0.5 (Hair et al. 1987). Indicators for which these criteria are not satisfied were removed.

3.4.4 Reliability

Reliability concerns the degree to which the scores are free from random measurement error (Kline, 2005, p. 58). Reliability coefficients are typically considered excellent at 0.90, very good at 0.80 and adequate at 0.70 (Nunnally, 1978).The minimum reliability for most studies is 0.70. The higher the reliability coefficients are; the less variance present due to random error. In this study, we report two measures of reliability: composite reliability (CRC) and Cronbach's alpha coefficients. The latter is the measure of reliability most commonly used in studies (Nunnally, 1994).These coefficients are a measure of internal consistency of an instrument and measure the quality of the instrument. Tables 3.8 to 3.13 show the composite reliability and Cronbach's alpha coefficients for tested sample. Both of these coefficients are above the 0.7 recommended thresholds, meaning the instrument used has adequate reliability (Nunnally, 1978).

3.4.5 Model fit

Three model fit indices are provided in Table 3.6.: average path coefficient (APC), average R-squared (ARS), and average variance inflation factor (VIF). For the APC and ARS, P values are also provided. When assessing the model fit with the data, the following criteria are recommended. First, it is recommended that the P values for the APC and ARS be both

lower than 0.05 (Kock, 2011); that is, significant at the 0.05 level. Second, it is recommended that the average variance inflation factor (AVIF) be lower than 5 (Kock, 2011).

3.4.6   Results

3.4.6.1 Conceptual models and control variables

As part of the structural equation modelling, Figure 3.3 to Figure 3.8 show our models created in WarpPLS 3.0. Figure 3.3 and Figure 3.4 show respectively the effect of the degree of offshoring of high value-added tasks (DEG HVA) versus standardized tasks (DEG STD) on performance improvement (PERF). Figure 3.5 and Figure 3.6 show the captive offshoring governance modes (CPT) effect on the relationship between the degree of offshoring of high value-added tasks versus standardized tasks and performance improvement. On the other hand, Figure 3.7 and Figure 3.8 show the third party offshoring governance modes (NCPT) effect on the relationship between the degree of offshoring of high value-added tasks versus standardized tasks and performance improvement. The analysis controlled for the effects of international experience (INT EXP), organization size (SIZE) and industry (INDUST).

Figure 3-3: Model 1- offshoring of high value-added tasks and performance improvement
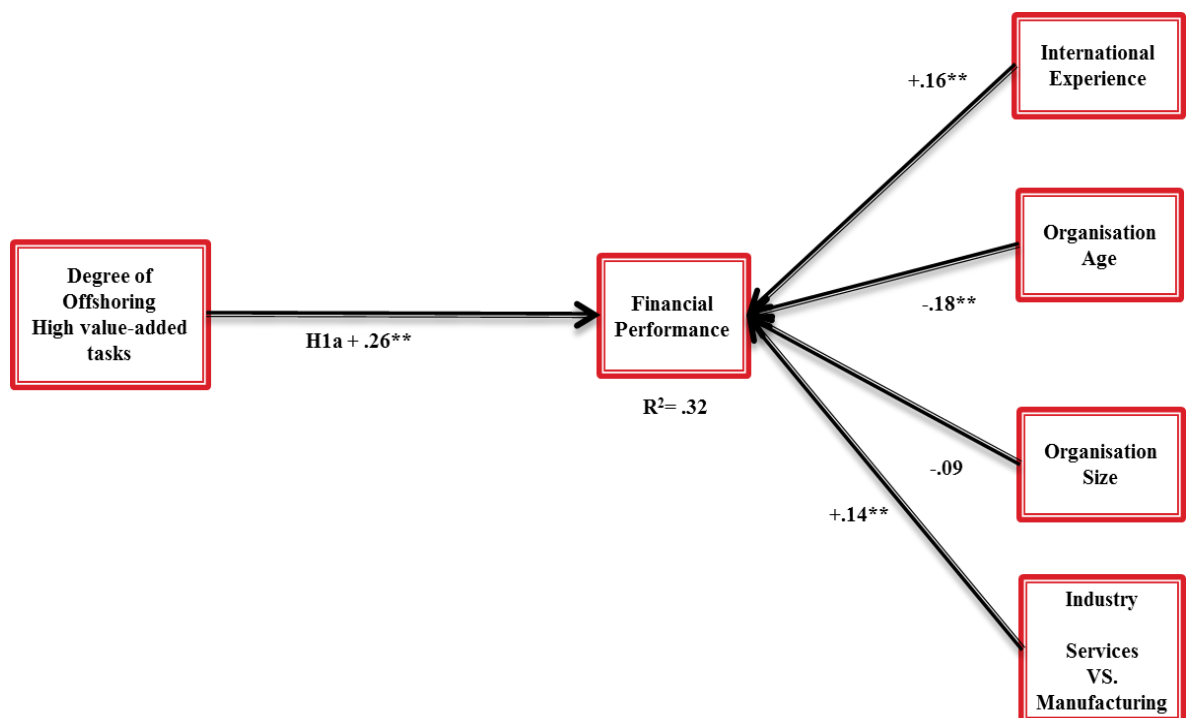
Figure 3-4: Model 2- offshoring of standardized tasks and performance improvement
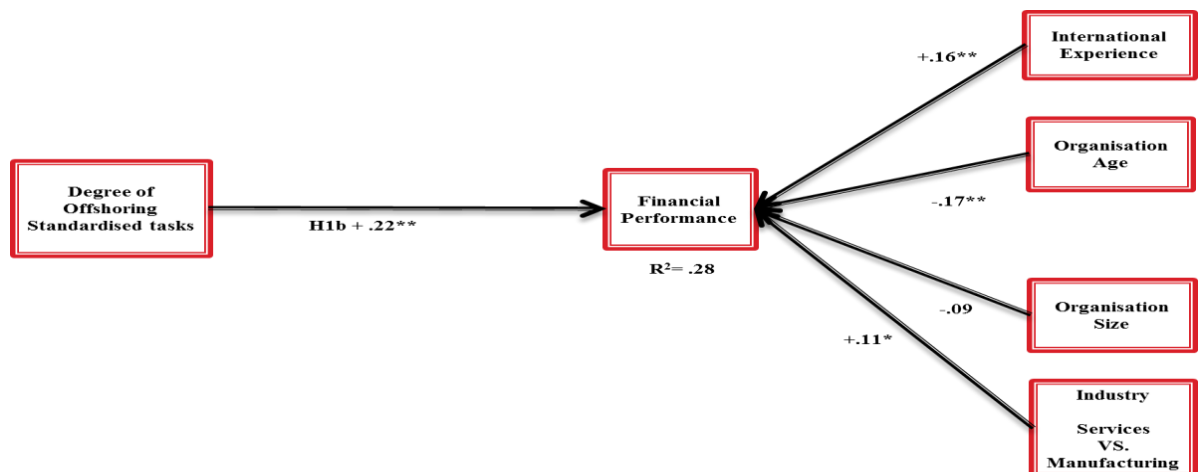
Figure 3-5: Model 3- offshoring of high value-added tasks, captive governance mode and performance improvement
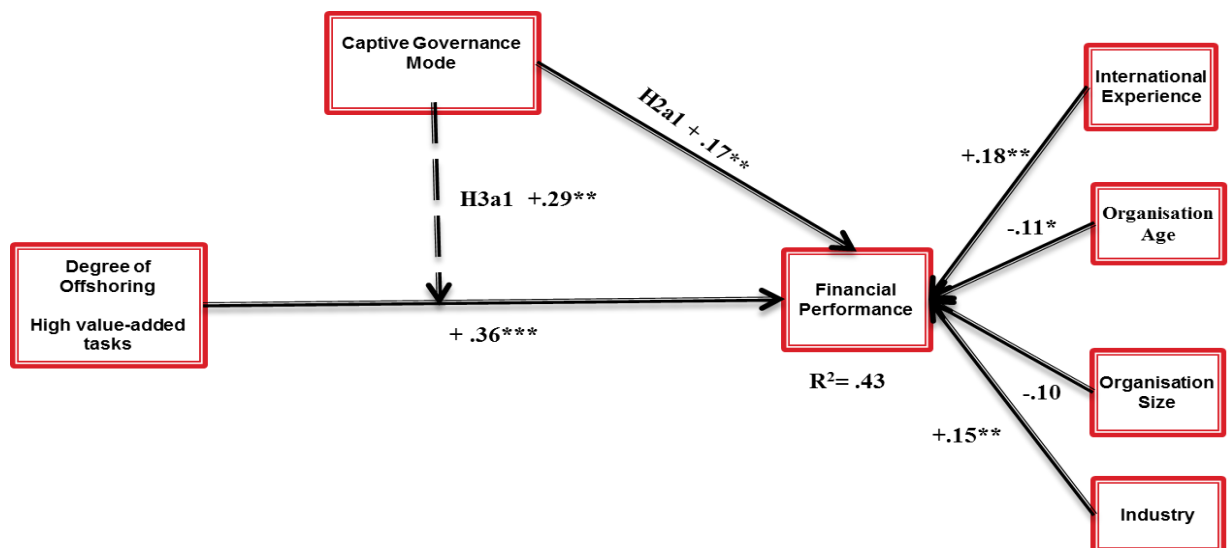
Figure 3-6: Model 4- offshoring of standardized tasks, captive governance mode and performance improvement
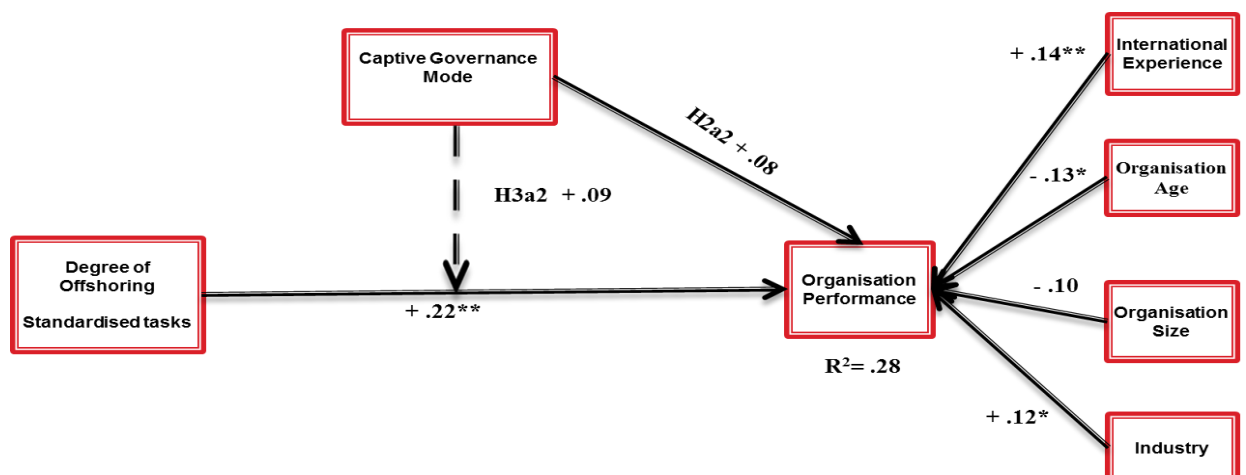
Figure 3-7: Model 5- offshoring of high value-added tasks, third party governance mode and performance improvement
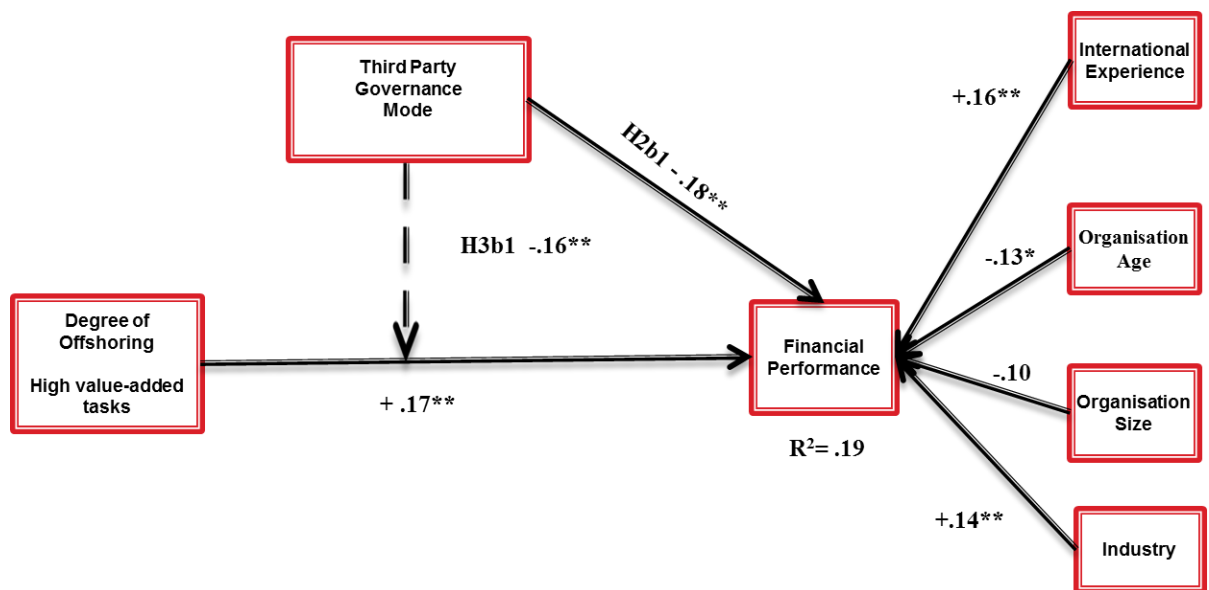
Figure 3-8: Model 6- offshoring of standardized tasks, third party governance and performance improvement
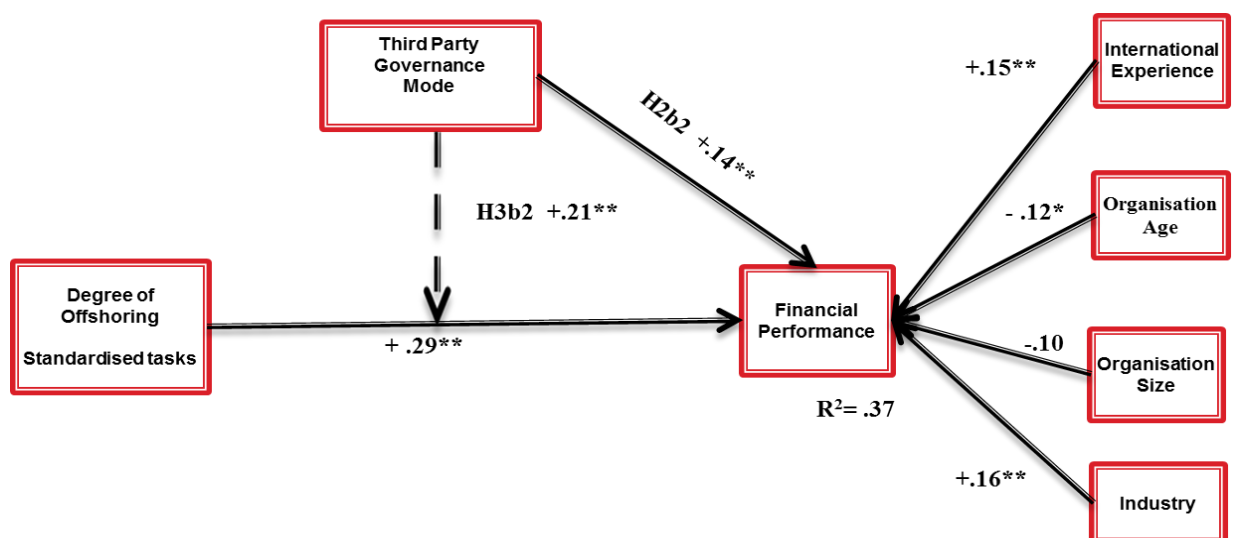
3.4.6.2 The direct relationship between the degree of offshoring of high value-added tasks and performance improvement

Table 3.6 identifies the R-squared coefficients (R^2), the path coefficient (β) and P values of the path between the degree of offshoring of high value-added tasks (DEG HVA) and performance (PERF) before entering the *moderator variable offshoring governance modes*. Results presented in table 3.6 and figure 3.3, show support for Hypothesis H1a (β=+0.26**, $R2$=0.32) that the degree of offshoring of high value-added tasks positively and directly

influences offshoring performance. Thus, the results showed that 32% of the variation in performance improvement could be explained by the degree of offshoring of high value-added tasks.

The results of the relationship between offshoring and performance were generally found to be mixed by previous researchers. The results of this analysis show clearly that the degree of offshoring of high value-added tasks (DEG HVA) is significantly associated with performance (PERF), regardless of control variables. In this model, the control variable international experience was positively significant (β=+0.16**) and industry (service versus manufacturing) was positively significant (β=+0.14**) however, organization age was negatively significant (β=-0.18**)   and size was insignificant. Thus, we can conclude that service industry and international experience have a significant positive effect on offshoring performance when organizations offshore high value-added tasks.

3.4.6.3 The direct relationship between the degree of offshoring standardized-tasks and performance improvement

Table 3.6 shows the R-square coefficients, the Path coefficient and P values of the path between the degree of offshoring standardized- tasks (DEG STD) and performance (PERF) (H1b, model 2) before entering the moderator variable offshoring governance modes. Results in Table 3.6 and figure 3.4 show no support for Hypothesis H1b (β=+0.22**, R^2 = 0.28). The result of this analysis contradicts our hypothesis and show that the degree of offshoring of standardized tasks is also positively and significantly associated with performance, regardless of control variables. In this model, control variables international experience was significant (β=+0.17**) and industry (service versus manufacturing) was significant (β=+0.11*) at 10% level, however, organization age was negatively significant (β=-0.17**) and size was insignificant.

3.4.6.4 The direct relationship between captive offshoring governance modes and performance improvement

As shown in Table 3.6, in figure 3.5 there was support for H2a1 (captive offshoring governance mode → performance improvement for organizations offshoring high value-added tasks, β=+0.17**, R^2 = 0.43). However, table 3.6 and figure 3.6 show no support for H2a2

(captive offshoring governance mode → performance decline for organizations offshoring high value-added tasks, β=+0.08, R^2 = 0.28).

Thus, we can conclude that using captive governance has a direct positive effect on long-term performance improvement for organizations offshoring high value-added tasks.

3.4.6.5 The direct relationship between third party offshoring governance modes and performance improvement

As shown in table 3.6, the results from figure 3.7 show support for H2b1 (Third party offshoring governance mode → performance decline for organizations offshoring high value added tasks , β=-.18**, R^2 = 0.19). In addition, the results in table 3.6 and figure 3.8 also confirm our hypothesis H2b2 (Third party offshoring governance mode → performance improvement for organizations offshoring standardized tasks , β=+.14**, R^2 = 0.37).

Thus, we can conclude that there is confirmation that offshoring through an external third party can have a direct negative influence on long-term performance improvement for organizations offshoring high value-added tasks however, can have a direct positive effect on performance improvement for organizations offshoring standardized tasks .

3.4.6.6 The moderating effect of captive offshoring governance modes

Table 3.6 shows the moderation results for model 3 and model 4. Model 3, figure 3.5 shows the moderating effect of the captive offshoring governance modes on the relationship between the degree of offshoring of high value-added tasks and performance improvement. On the other hand, model 4, figure 3.6 shows the moderating effect of the captive offshoring governance modes on the relationship between the degree of offshoring of standardized tasks and performance improvement. As a first step, both the relationship between the degree of offshoring of high value-added tasks and performance improvement (model 1) and the degree of offshoring of standardized tasks and performance improvement (model 2) were tested. In the second step, the moderator variable captive governance mode was introduced into the models.

In model 3, H3a1 was tested and empirically supported. That is the moderating effect of captive offshoring governance mode (CPT) on the relationship between the degree of offshoring of high value-added tasks (DEG HVA) and performance (PERF) is positively

significant (β=+0.29**). In step 2 after introducing captive offshoring governance mode, the path coefficient β between the degree of offshoring of high value-added tasks and performance improvement increased by 0.1(0.36-0.26) and R^2 value increased from 0.32 to 0.43. This is an indicator of the size of positive effect of the moderator (captive governance mode) on the strength of the relationship between the degree of offshoring of high value-added tasks and performance improvement. In this model, control variables international experience (β=+0.18**) and industry (service versus manufacturing) were significant (β=+0.15**), however, organization age was negatively significant at 10% and size was insignificant.

In this moderation model, even though the relationship between the degree of offshoring of high value-added tasks and performance was strengthened by the introduction of the captive offshoring governance mode. However, the relationship between the degree of offshoring of high value-added tasks and performance was significant before introducing the moderator (captive governance mode). Therefore, we can conclude that use of a captive governance mode has a partial positive moderating effect.

In model 4, there was no empirical support for H3a2. That is there is no negative moderating effect of captive offshoring governance mode (CPT) on the relationship between the degree of offshoring of standardized tasks (DEG STD) and performance (PERF) is significant (β=+0.09). In this model, control variables international experience and industry was significant at 10% level instead of 5% level as in the previous model. However, organization age, negatively significant at 10% level and size, were insignificant.

3.4.6.7 The moderating effect of third party offshoring governance modes

Table 3.6 shows the moderation results for model 5 and model 6. Model 5 shows the moderating effect of the third party offshoring governance modes on the relationship between the degree of offshoring of high value-added tasks and performance improvement. On the other hand, model 6 shows the moderating effect of the third party offshoring governance modes on the relationship between the degree of offshoring of standardized tasks and performance improvement. As discussed before, in the first step, both the relationship between the degree of offshoring of high value-added tasks and performance improvement (model 1) and the degree of offshoring of standardized tasks and performance improvement (model 2) were tested. In the second step, the moderator variable third party governance mode was introduced into the models.

In model 5, H3b1 was tested and empirically supported. That is the moderating effect of third party offshoring governance mode (non-captive) (NCPT) on the relationship between the degree of offshoring of high value-added tasks (DEG HVA) and performance (PERF) is negatively significant (β=-0.16**). In step 2 after introducing third party offshoring governance mode, the path coefficient β between the degree of offshoring of high value-added tasks and performance improvement significantly decreased by 0.05(0.17-0.22) and R^2 value also significantly decreased from 0.28 to 0.19. This is an indicator of the size of the negative effect of the moderator (captive governance mode) on the strength of the relationship between the degree of offshoring of high value-added tasks and performance improvement. In this model, control variables international experience (β=+0.16**) and industry (β=+0.14**) were significant. However, organization age was negatively significant at 10% and size was insignificant.

In this moderation model, even though the relationship between the degree of offshoring of high value-added tasks and performance was significantly weakened by the introduction of the third party offshoring governance mode. However, the relationship between the degree of offshoring of high value-added tasks and performance was significant before introducing the moderator (third party governance mode) and it remained significant. Therefore, we can conclude that use of a third-party governance mode has a partial negative moderating effect.

In model 6, H3b2 was tested and empirically supported. That is the moderating effect of third party offshoring governance mode (non-captive) (NCPT) on the relationship between the degree of offshoring of standardized tasks (DEG STD) and performance (PERF) is positively significant (β=+0.21**). In step 2 after introducing third party offshoring governance mode, the path coefficient β between the degree of offshoring of high value-added tasks and performance improvement significantly increased by 0.07(0.29-0.22) and R^2 value also significantly increased from 0.28 to 0.37. This is an indicator of the size of the positive effect of the moderator (third party governance mode) on the strength of the relationship between the degree of offshoring of standardized tasks and performance improvement. In this model, control variables international experience (β=+0.15**) and industry were significant . However, organization age was negatively significant at 10% and size was insignificant.

In this moderation model, even though the relationship between the degree of offshoring of standardized tasks and performance was significantly strengthened by the introduction of the

third party offshoring governance mode. However, the relationship between the degree of offshoring of standardized tasks and performance was significant before introducing the moderator (third party governance mode) and remained significant. Therefore, we can conclude that this is a case of partial positive moderating effect.

Table 3-6: Summary of outcomes

Hypothesised Path	Financial performance	Support for Hypothesis
Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.* **High degree of offshoring (high value-added tasks) → Higher performance improvement**	+ 0.26**	H1a (+) supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.* **High degree of offshoring (standardized tasks) ≠ Higher performance improvement**	0.22**	H1b (-) Not supported
Hypothesis 2a1: *Captive offshoring governance mode positively effects performance improvement for organizations offshoring high value-added tasks.* **Captive offshoring mode → Higher performance improvement**	+ 0.17**	H2a1 (+) supported
Hypothesis 3a1: *Captive offshoring governance mode positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **High Degree of offshoring (high value-added tasks) X Captive offshoring mode → Higher performance improvement**	+ 0.29**	H3a1 (+) supported
Hypothesis 2a2: *Captive offshoring governance mode negatively effects performance improvement for organizations offshoring standardized tasks.* **Captive offshoring mode → Lower performance improvement**	+ 0.08	H2a2 (-) not supported
Hypothesis 3a2: *Captive offshoring governance mode negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **High Degree of offshoring (standardized tasks) X Captive offshoring mode → Lower performance improvement**	+ 0.09	H3a2 (-) Not supported
Hypothesis 2b1: *Third party offshoring governance mode negatively effects performance improvement for organizations offshoring high value-added tasks.* **Third party offshoring mode → Lower performance improvement**	- 0.18**	H2b1 (-) supported
Hypothesis 3b1: *Third party offshoring governance mode negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **High Degree of offshoring (high value-added tasks) X third party offshoring mode → Lower performance improvement**	- 0.16**	H3b1 (-) Supported
Hypothesis 2b2: *Third party offshoring governance mode positively effects performance improvement for organizations offshoring standardized tasks.* **Third party offshoring mode → Higher performance improvement**	+0.14**	H2b2 (+)supported
Hypothesis 3b2: *Third party offshoring governance modes positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **High Degree of offshoring (standardized tasks) X third party offshoring mode → Higher performance improvement**	+ 0.21**	H3b2 (+) Supported
Model 1 Degree of offshoring high value-added tasks effect on performance improvement R^2	0.32	
Model 2 Degree of offshoring Standardized tasks effect on performance improvement R^2	0.28	
Model 3 Degree of offshoring high value-added tasks X captive offshoring mode effect on performance improvement R^2	0.43	
Model 4 Degree of offshoring standardized tasks X captive offshoring mode effect on performance improvement R^2	0.28	
Model 5 Degree of offshoring high value-added tasks X third party offshoring mode effect on performance improvement R^2	0.19	
Model 6 Degree of offshoring standardized tasks X third party offshoring mode effect on performance improvement R^2	0.37	

Note: *Significant at the 10% level ($p<0.1$); **significant at the 5% level ($p<0.05$); ***significant at the 1% level ($p<0.01$).

Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

Table 3-6: Summary of outcomes (continued)

Model fit indices and P values:	Indices	P values
Model 1		
APC	0.20	P=<0.001
ARS	0.24	P= 0.008
AVIF	2.08	Good if < 5
Model 2		
APC	0.14	P=<0.001
ARS	0.27	P= 0.015
AVIF	2.20	Good if < 5
Model 3		
APC	0.16	P=<0.001
ARS	0.24	P= 0.04
AVIF	2.84	Good if < 5
Model 4		
APC	0.18	P=<0.001
ARS	0.20	P= 0.014
AVIF	2.93	Good if < 5
Model 5		
APC	0.14	0.001
ARS	0.24	0.030
AVIF	2.69	Good if < 5
Model 6		
APC	0.16	P=<0.001
ARS	0.18	P= 0.031
AVIF	2.53	Good if < 5

Note: *Significant at the 10% level ($p<0.1$); **significant at the 5% level ($p<0.05$); ***significant at the 1% level ($p<0.01$). Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

3.4.6.8 The time effect to achieve the expected performance level

Lewin and Peeters (2006b) argued that the time frame available to achieve the expected offshoring goals, such as reducing cost, improving service level, easing competitive pressure or accessing qualified personnel is very critical to offshoring organization.

As we have previously discussed, offshoring organizations have to choose between two common governance modes: (1) external governance mode (i.e. third party offshoring) and internal governance mode (i.e. captive or wholly-owned subsidiary). These two modes mainly differ with respect to level of control an organization can exercise on its offshoring

166

implementation, the efforts needed to implement and manage the offshoring entity, the risk involved in implementing offshoring activities and scale of expertise and know-how an organization can access (Hutzschenreuter et al., 2011) . A captive governance mode prevents the coordination and information exchange difficulties with the third party provider, which can delay the time plan of an offshoring implementation and jeopardize the success of the offshoring project (Hutzschenreuter et al., 2011). However, a third party offshoring provider can have a better knowledge of the local offshore environment (Hutzschenreuter et al., 2011). This will increase the efficiency level allowing faster implementation and less time. This mode will be adequate for the offshoring of standardized tasks, which do not represent core competencies of an organization.

In this section, we focus on the time frame an organization needs to achieve the expected savings and targeted performance improvement from offshoring in case of different offshoring governance mode and different nature of tasks (i.e. high value-added tasks and standardized tasks). In order to explore the time required to achieve the expected performance improvement in case of different offshoring governance mode and nature of tasks offshored, we repeated our previous analysis of longer-term performance improvement (i.e. five years after the offshoring announcement year) using shorter-term change in performance (i.e. 1 year and 3 years after the offshoring announcement year). The change in performance was calculated as:

Δ**Performance = (Value)j – (Value)i ,** where i = pre-offshoring Year -1 and j = post-offshoring Year +1 and Year +3

The results in table 3.20 (refer to appendices) show the findings after one year of the offshoring announcement. The findings showed support for hypothesis H3a1 (β=+.11* R^2=0.24) which shows a minor positive moderation effect of captive governance mode on performance improvement for organizations offshoring high value added tasks. The findings also showed support for hypotheses H2b2 (β=+.18**, R^2=0.34) H3b2 (β=+.24**, R^2=0.34) which respectively relate to the positive direct and moderating effect of third party governance mode on performance improvement for organizations offshoring standardized tasks. The test of the hypotheses showed no support for H1a and H2a1, which relate respectively to the direct effect of the degree of offshoring and captive governance mode for organizations offshoring high value-added tasks. The findings also showed no support for H2b1 and H3b1, which relate respectively to the hypothesized negative direct and moderating effect of third party governance mode on performance improvement for organization

offshoring high value-added tasks. However, these hypotheses were supported with the previous test at a five year after the offshoring announcement.

The results in table 3.21 (refer to appendices) show the findings after 3 year of the offshoring announcement. The findings showed support for hypotheses H1a (β=+.19**, R^2=0.28) which confirms the direct positive effect of offshoring high value-added tasks on performance improvement. The findings also showed support for H2a1 (β= +.11*, R^2=0.37) and H3a1 (β= +.21**, R^2=0.37) which confirms respectively the positive direct and moderating effect of captive governance mode on performance improvement for organization offshoring high value-added tasks. In addition, the findings showed support for H3b1 (β= -.16**, R^2=0.17), which relates to the negative moderation effect for third party governance mode on organizations offshoring standardized tasks. Hypotheses H2b2 (β=+.14**, R^2=0.39) H3b2 (β=+.26**, R^2=0.39) which respectively relate to the positive direct and moderating effect of the third party governance mode on performance improvement for organizations offshoring standardized tasks. The test of the hypothesis: H2b1(β= -.10, R^2=0.17), which hypothesized a direct negative effect of third party governance mode on performance improvement for organizations offshoring high value-added tasks, showed no support at three years after the offshoring announcement but was supported five years after the offshoring announcement.

3.5 Discussion and conclusion

This study focused on analysing offshoring at disaggregated task- level rather than function-level, empirically supporting previous scholars proposal about the importance of task-level analysis (Doh et al. 2009; Jensen, 2009; Jensen & Pedersen, 2012; Kedia & Mukherjee, 2009; Kumar et al. 2009; Mudambi & Tallman 2010). The analysis at task-level was more effective in capturing the relationship between the nature of the tasks offshored and the offshoring governance mode and showed the positive direct effect of both the degree of offshoring of standardized tasks and the degree offshoring high value-added tasks on performance improvement.

Different offshoring governance modes exist to offshore both high value-added tasks or standardized tasks. This research study examined the most commonly used offshoring governance modes captive and third party (offshore outsourcing) (Roza et al. 2011; Manning et al. 2008). This study empirically examined the direct effect of both captive offshoring governance mode and third party governance mode on performance improvement.

Striking a balance between third party offshoring, vertical integration (i.e. captive offshoring) and the nature of tasks offshored has been theoretically conceptualised to be important for achieving performance gains (Jensen & Pedersen, 2012; Rothaermel, Hitt & Jobe, 2006). This research also analysed the moderating effect of captive governance mode versus third party governance mode on both the relationship between the degree of offshoring of high value-added tasks and performance improvement and the degree of offshoring of standardized tasks and performance improvement over a period of six years based on the primary data of Australian offshoring organizations.

Our analysis confirms the relevance of matching the used offshoring governance mode with the nature of the tasks offshored to achieve the targeted performance improvement within the expected time frame. The empirical investigations five years after the offshoring announcement showed the following:

1. Positive direct effect of offshoring of high value-added tasks on long-term performance improvement;

2. Positive direct effect of offshoring of standardized tasks on long-term performance improvement;

3. Positive direct effect of captive offshoring governance mode on long-term performance improvement for organizations offshoring high value-added tasks;

4. Negative direct effect of third part governance mode on long-term performance improvement for organizations offshoring high value-added tasks;

5. Positive direct effect of third part governance mode on long-term performance improvement for organizations offshoring standardized tasks;

6. Positive moderating effect of captive governance mode on the relationship between the degree of offshoring of high value-added tasks and long-term performance improvement;

7. Negative moderating effect of third party governance mode on the relationship between the degree of offshoring of high value-added tasks and performance improvement;

8. Positive moderating effect of the third party governance mode on the relationship between the degree of offshoring of standardized tasks and performance improvement.

The results of this study confirmed that captive offshoring governance mode is a viable option to offshore high value-added tasks and satisfy cost-saving imperatives; this could be traced back to potential risks of offshoring high value-added tasks to foreign third party provider and managerial control practices that might favour captive solutions. This result is consistent with

the findings of Nieto and Rodríguez (2011) who confirmed that captive governance mode exerts a greater effect than third party governance mode on offshoring product and process innovation. This result is also consistent with that of Massini et al. (2010) who showed that captive offshoring has a significant positive effect on achieved cost savings for US organizations.

On the other hand, the results of this study confirmed that using third party offshoring governance mode exerts more positive effect than captive governance mode on offshoring-standardized tasks. This result is also consistent with the findings of Massini et al. (2010) who showed that third party offshoring has a significant positive effect on achieved cost savings for European organizations. Incorporating a third party provider with local skills and knowledge and more familiar to country settings can speed up the transition process (Hutzschenreuter et al. 2011). This can consequently lead to cost savings which is more likely to be the reason for offshoring standardized tasks.

Moreover, the study results also confirmed that using third party offshoring governance mode exerts a significant negative effect on the offshoring of high value-added tasks. This could be due to the high level of risk of losing control over high value added-tasks associated with using a third party governance mode. This is more likely to result in a dependency on the provider who might react opportunistically leading to high control costs (Williamson, 1991 & Hennart, 1994 Hilmer 1994; Razzaque & Cheng 1998). This factor can be crucial in the case of offshoring high value-added tasks and would have a negative effect on the offshoring organization's performance improvement.

Interestingly, the research results show that Australian organizations are not constrained by their size in executing offshoring implementations using different offshoring governance modes. A partial explanation for this outcome it could be the use of offshoring governance modes might be more influenced by the size of the operation, industry and host country (Roza et al. 2011; Brouthers & Hennart, 2007) instead of the organization size. Our results also show that international experience plays an important role for matching the right governance mode with offshoring tasks to achieve the optimal outcomes. Organizations that use the captive governance mode to offshore high value-added tasks have relatively greater experience and belong mainly to the service industries. Our results showed that organizations age has a negative control effect. Hence, this confirms previous research findings and it could

be that older Australian organizations are less likely than younger organizations to explore new ventures outside their boundaries (Zahra, 1991) due to inertia and sunk costs in ongoing existing operations.

Finally, exploring the time effect of the offshoring implementation on Australian organizations showed a clear confirmation that a longer time than one year is required to achieve the target performance improvement for using an internal governance for all organizations in both categories (high value added tasks and standardized tasks). However, the findings also showed that a that more time than one year is required to experience the negative effect using a third party governance mode to offshore high value-added tasks. The moderating negative effect of this mode was clearly confirmed in our analysis after three years of the offshoring announcement while the direct negative effect was confirmed after five years of the offshoring announcement.

One explanation of the above findings could be that an organization using a captive governance mode has the ability to offshore and perform all offshored tasks on its own. This organization can leverage its existing structure that was already successfully used in the home country and apply it abroad with or without any minor modifications. But, an organization using this mode has to cope with all challenges and issues on its own, without the offshoring expertise, even minor issues can prolong the expected time frame and compromise the success of the offshoring implementation (Hutzschenreuter et al., 2011). Therefore, at the short-term level organizations using this mode might not achieve their target performance improvement especially for offshoring high value-added tasks.

On the other hand, by incorporating a third party that can assign managerial tasks to local staff with local knowledge and more familiarity with the local environment will allow the offshoring organizations to perform tasks more efficiently and speed up the implementation process (Hutzschenreuter et al., 2011) especially for offshoring standardized tasks. However, at the longer-term the advantages of using an external partner might lose relevance and might become harmful especially for offshoring high value-added tasks that represent core competencies of an organization. Consequently, as the offshoring process is known as a continuous "sequential learning by doing processes" (Lewin and Peeters 2006, p.236), organizations using a captive governance mode might catch up and achieve their targets as fast as with a third party governance mode.

3.6   Implications and contribution

These findings empirically contribute to a current theoretical debate on the "cross-border organization of the value chain" (Jensen and Pedersen, 2012, p.315) and offshoring governance mode choice. Organizations are increasingly "slicing" their value chain activities more finely into standardized tasks and value-added tasks to align each activity task with the ideal destination and governance mode (Jensen and Pedersen, 2012; Buckley 2009; Mudambi 2008; Buckley & Ghauri 2004). This study also provides some managerial implications as well. The offshoring governance mode is a stepping-stone to cost savings and higher performance. Decision makers are advised to make governance decisions based on the distinction between standardized tasks and value-added tasks. No single governance mode achieves cost savings under all circumstances, nor will it always deliver satisfactory expectations. This research study confirms that captive offshoring governance modes produce better results than third party governance modes when the offshored tasks are categorised as high value-added tasks. This is because captive governance modes are more efficient, less risky, have lower control costs and lower supply costs related to opportunistic behaviour of the supplier. Thus, the captive offshoring governance mode can lead to greater performance improvement. However, organizations should turn to third party governance modes to offshore-standardized tasks with confidence, as the costs involved are lower than the costs of using captive offshoring governance mode. Establishing a captive subsidiary offshore can be an expensive exercise which requires a substantial investment in financial and human resources (Hutzschenreuter et al. 2011; Pangarkar and Lim 2003; Woodcock et al.1994). This is in addition to managerial coordination and control capabilities. Thus, offshoring standardized tasks using third party governance modes can lead to better performance on the long-term.

Interestingly, consistent with the findings of Roza, Van den Bosch and Volberda, (2011), the governance mode choice of offshoring is not affected by organization size. In this study both small and medium-sized Australian organizations are shown not to be constrained by their organization size to offshore both standardizedstandardized and/or value-added tasks and use both offshoring governance modes (i.e. captive and third party). However, the governance mode choice of offshoring was affected by industry and international experience. In this study service industry and international experience showed significant positive effects on organizations offshoring high-value-added tasks and using a captive offshoring governance mode.

172

3.7 Limitations and directions for future research

While the empirical results could be very interesting and have both academic and practical implications, caution should be exerted when generalising the findings beyond the scope of this study. First, the results were derived from a sample of Australian organizations, which raises the possibility that findings might be country-specific. Studies with comparative sample from other countries should be tested to confirm the outcomes. Second, results were derived from a small sample (77 organizations). Studies with larger samples should be used to test and extend the generalizability of our findings. Third, our sample consisted of organizations with a size between 50-200 employees. Future research could investigate the implications of using offshoring governance modes with larger-sized organizations to complement the picture of the relationship of the degree of offshoring, offshoring governance modes and performance improvement for the full range of organization sizes. The fourth limitation is that our study analyses only two offshoring governance models; other types also exist. However, in this study they were consolidated with either captive mode (i.e. joint-venture mode) or third party governance mode (i.e. build-operate-transfer mode). Indeed, some authors state that hybrid models exist halfway between the captive and outsourcing models and might have different effect (Jahns et al. 2006). Moreover, a recent study by Ivarsson and Alvstam, (2013), showed that SMEs could also use other entry modes to secure full ownership control such as international business-network relations. This mode can both reduce risk and develop new opportunities. It will be interesting to examine the applicability of such mode to the offshoring process.

These models were not explicitly tested in our analysis as some scholars argue that joint ventures are inherently inefficient because of complex management relationships (Boateng & Glaister 2002; Pangarkar & Lim 2003) and rarely exist in the offshoring operations (Lewin, 2007).

Moreover, organizations in the offshore outsourcing category, for example, may occasionally maintain some type of more informal collaborative relationship that helps to guarantee the fulfilment of the contract. In a situation like this, the classical risks related to offshoring using a third party are reduced. Incorporating such information, will allow a more detailed analysis that might lead to better understanding of third party offshoring governance modes effect on performance improvement. Knowing the destination country characteristics, its risks, and its level of technological development could also enrich the analysis and its conclusions. The

fifth limitation is inherent from the choice of the methodology. As in any empirical study, this paper's limitations provide promising lines of future research.

APPENDICES

Table 3-7: Variables construction and measurements

Variables	Construction and measurement
Dependent	
Financial performance	
- **Difference in Net Operating Income (Year + 5 – Year-1)**	Net Operating Income =Gross Income – Operating Expenses – Depreciation (Year +5- Year-1).
- **Difference in Cost of goods sold as a percentage of Sales (Year +5- Year-1)**	% Difference in cost of goods sold/ Sales (Year +5- Year-1).
- **Difference in Shareholder's Value Growth Rate (Year +5- Year-1**	% Difference in Shareholder's Value Growth Rate (Year +5- Year -1).
Independent	
Degree of offshoring	Number of jobs offshored as percentage of total jobs.
High value-added tasks **Versus StandardizedStandardized tasks**	Number of tasks offshored as percentage of total tasks.
Offshoring Governance Mode	Number of offshoring implementations as percentage of total implementations.
- **Captive**	Fully ownership mode. Shared ownership mode.
- **Third Party**	No ownership.
Controls	
International experience	Number of years of previous international experience.
Organization size	The natural logarithm of number of employees in a home country.
Organization age	The natural logarithm of number of years an organization has been in existence.
Industry sector	A dummy variable to code the different industries, 1 for offshoring services, and 0 for offshoring manufacturing.

Note: Data was collected between 2010 and 2011.

Correlations among latent variables and P values

Table 3-8: Correlations Model 1

H1a: The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement.

	DEG HVA	PERF	INT_EXP	INDUST	SIZE
DEG HVA	**0.92**	0.13*	0.38***	0.14*	0.01
PERF	0.13*	**0.84**	0.03	0.27***	-0.10
INT_EXP	0.38***	0.03	**1.00**	0.11	0.02
INDUST	0.14*	0.27***	0.11	**1.00**	-0.03
SIZE	0.01	-0.10	0.02	-0.03	**1.00**
CRC	0.94	0.88	1.00	1.00	1.00
Cronbach	0.91	0.79	1.00	1.00	1.00
VIFs	3.62	1.14	3.55	1.09	1.01

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.
CRC: composite reliability coefficient; Cronbach: Cronbach's alpha coefficient; VIF: Variance inflation factor. DEG HVA: Degree of offshoring high value-added tasks ; PERF: performance; INT_EXP: International experience; INDUST: Industry; SIZE: organization size.

Table 3-9: Correlations Model 2

H1b: The degree of offshoring of standardized tasks will not be significantly related to performance improvement.

	DEG STD	PERF	INT_EXP	INDUST	SIZE
DEG STD	**0.89**	0.12*	0.35***	0.05	-0.02
PERF	0.12*	**0.84**	0.03	0.27***	-0.10
INT_EXP	0.35***	0.03	**1.00**	0.11	0.02
INDUST	0.05	0.27***	0.11	**1.00**	-0.03
SIZE	-0.02	-0.10	0.02	-0.03	**1.00**
CRC	0.92	0.88	1.00	1.00	1.00
Cronbach	0.86	0.79	1.00	1.00	1.00
VIFs	3.88	1.14	3.87	1.12	1.01

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. DEG STD: degree of offshoring standardized tasks.

Table 3-10: Correlations Model 3

Hypothesis 2a1: Captive offshoring governance mode has a positive direct effect on performance improvement for organizations offshoring high value-added tasks.
Hypothesis 3a1: Captive offshoring governance mode positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement

	DEG HVA	PERF	INT_EXP	INDUST	SIZE	CPT	CPT*DEG HVA
DEG HVA	**0.92**	0.13*	0.38***	0.14*	0.01	0.39***	0.43***
PERF	0.13*	**0.84**	0.03	0.27***	-0.10	0.06	0.20***
INT_EXP	0.38***	0.03	**1.00**	0.11	0.02	0.30***	0.31***
INDUST	0.14*	0.27***	0.11	**1.00**	-0.03	0.30***	0.23***
SIZE	0.01	-0.10	0.02	-0.03	**1.00**	0.08	0.04
CPT	0.39***	0.06	0.30***	0.30***	0.08	**1**	0.38***
CPT*DEG HVA	0.43***	0.20***	0.31***	0.23***	0.04	0.38***	**0.71**
CRC	0.94	0.88	1.00	1.00	1.00	0.92	0.88
Cronbach	0.91	0.79	1.00	1.00	1.00	0.81	0.71
VIFs	4.18	1.26	3.67	1.21	1.02	4.21	4.36

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. CPT: captive governance mode.

Table 3-11: Correlations Model 4

Hypothesis 2a2: Captive offshoring governance mode has a negative direct effect on performance improvement for organizations offshoring standardized tasks.
Hypothesis 3a2: Captive offshoring governance mode negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement

	DEG STD	PERF	INT_EXP	INDUST	SIZE	CPT	CPT*DEG STD
DEG STD	**0.89**	0.12*	0.35***	0.05	-0.02	0.37***	0.40***
PERF	0.12*	**0.84**	0.03	0.27***	-0.10	0.06	0.22***
INT_EXP	0.35***	0.03	**1.00**	0.11	0.02	0.30***	0.26***
INDUST	0.05	0.27***	0.11	**1.00**	-0.03	0.30***	0.17**
SIZE	-0.02	-0.10	0.02	-0.03	**1.00**	0.08	0.02
CPT	0.37***	0.06	0.30***	0.30***	0.08	**1**	0.34***
CPT*DEG STD	0.40***	0.22***	0.26***	0.17**	0.02	0.34***	**0.70**
CRC	0.92	0.88	1.00	1.00	1.00	0.92	0.85
Cronbach	0.86	0.79	1.00	1.00	1.00	0.81	0.49
VIFs	4.38	1.29	4.00	1.31	1.03	4.28	4.24

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.

Table 3-12: Correlations Model 5

Hypothesis 2b1: Third party offshoring governance mode has a negative direct effect on performance improvement for organizations offshoring high value-added tasks.

Hypothesis 3b1: Third party offshoring governance mode negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.

	DEG HVA	PERF	INT_EXP	INDUST	SIZE	NCPT	NCPT*DEG HVA
DEG HVA	**0.92**	0.13*	0.38***	0.14*	0.01	0.40***	0.21***
PERF	0.13*	**0.84**	0.03	0.27***	-0.10	0.01	0.07
INT_EXP	0.38***	0.03	**1.00**	0.11	0.02	0.43***	0.14**
INDUST	0.14*	0.27***	0.11	**1.00**	-0.03	-0.20***	-0.22***
SIZE	0.01	-0.10	0.02	-0.03***	**1.00**	-0.16**	-0.15**
NCPT	0.40***	0.01	0.43***	-0.20***	-0.16**	**1**	0.31***
NCPT*DEG HVA	0.21***	0.07	0.14*	-0.22	-0.15**	0.31***	**0.69**
CRC	0.94	0.88	1.00	1.00	1.00	0.70	0.84
Cronbach	0.91	0.79	1.00	1.00	1.00	0.73	0.82
VIFs	3.80	1.15	4.20	1.20	1.05	3.59	3.86

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NCPT: Third party governance mode (non-captive)

Table 3-13: Correlations Model 6

Hypothesis 2b2: Third party offshoring governance mode has a positive direct effect on performance improvement for organizations offshoring standardized tasks.

Hypothesis 3b2: Third party offshoring governance mode positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.

	DEG STD	PERF	INT_EXP	INDUST	SIZE	NCPT	NCPT*DEG STD
DEG STD	**0.89**	0.12*	0.35***	0.05	-0.02	0.61***	0.48***
PERF	0.12*	**0.84**	0.03	0.27***	-0.10	0.01	0.04
INT_EXP	0.35***	0.03	**1.00**	0.11	0.02	0.43***	0.26***
INDUST	0.05	0.27***	0.11	**1.00**	-0.03	-0.20***	-0.21***
SIZE	-0.02	-0.10	0.02	-0.03	**1.00**	-0.16**	-0.15**
NCPT	0.61***	0.01	0.43***	-0.20***	-0.16**	**1**	0.50***
NCPT*DEG STD	0.48***	0.04	0.26***	-0.21***	-0.15**	0.50***	**0.67**
CRC	0.92	0.88	1.00	1.00	1.00	0.70	0.82
Cronbach	0.86	0.79	1.00	1.00	1.00	0.73	0.80
VIFs	3.27	1.15	4.20	1.19	1.06	3.03	3.82

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.

Combined loadings and cross-loadings

Table 3-14: Loadings Model 1

	DEG_HVA	PERF	INT_EXP	INDUST	SIZE	P value
NO_JOB	**0.94**	0.12	-0.33	-0.08	-0.02	<0.001
NO_IMPL	**0.95**	-0.03	-0.26	-0.01	-0.04	<0.001
V_TASK	**0.87**	-0.10	0.64	0.10	0.06	<0.001
D5YR_NOI	0.05	**0.87**	0.05	-0.06	-0.05	<0.001
D5YR_SG	0.24	**0.84**	-0.17	-0.01	0.03	<0.001
D5YR_SHV	-0.30	**0.81**	0.13	0.07	0.02	<0.001
INT_EXP	0.00	0.00	**1.00**	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	**1.00**	0.00	<0.001
LNEMPL	0.00	0.00	0.00	0.00	**1.00**	<0.001

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NO_TASKS: number of tasks, NO_JOB: number of jobs, NO_IMPL: number of implementations, D5YR_NOI: difference in net operating income, D5YR_SG: difference in 5 years sales growth rate, D5YR_SHV: difference in shareholder's value growth rate. DEG HVA: Degree of offshoring value-added tasks, IND_SERV: service industry, LNEMPL: natural logarithm of number of employees

Table 3-15: Loadings Model 2

	DEG STD	PERF	INT_EXP	INDUST	SIZE	P value
NO_JOB	**0.93**	0.15	0.01	0.02	0.03	<0.001
NO_IMPL	**0.94**	-0.01	0.03	0.09	0.01	<0.001
ST_TASK	**0.79**	-0.16	-0.06	-0.14	-0.04	<0.001
D5YR_NOI	-0.11	**0.87**	0.20	-0.06	-0.05	<0.001
D5YR_SG	0.05	**0.84**	0.02	0.00	0.03	<0.001
D5YR_SHV	0.06	**0.81**	-0.23	0.07	0.02	<0.001
INT_EXP	0.00	0.00	**1.00**	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	**1.00**	0.00	<0.001
LNEMPL	0.00	0.00	0.00	0.00	**1.00**	<0.001

Note: P values < 0.05 are desirable for reflective indicators.
 *Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NO_TASKS: number of tasks, NO_JOB: number of jobs, NO_IMPL: number of implementations, D_NOI: difference in net operating income, D_SG: difference in cost of goods sold/sales, D_SHV: difference in shareholder's value growth rate. IND_SERV: service industry, LNEMPL: natural logarithm of number of employees.

Table 3-16: Loadings Model 3

	DEG HVA	PERF	INT_EXP	INDUST	SIZE	CPT	CPT* DEG HVA	P value
NO_JOB	**0.94**	0.11	-0.36	-0.10	-0.02	-0.12	0.15	<0.001
NO_IMPL	**0.95**	0.00	-0.07	-0.06	-0.05	0.07	0.04	<0.001
V_TASK	**0.87**	-0.12	0.47	0.17	0.07	0.05	-0.21	<0.001
D5YR_NOI	0.08	**0.87**	0.03	-0.01	-0.04	-0.24	0.19	<0.001
D5YR_SG	0.21	**0.84**	-0.15	-0.06	0.02	0.34	-0.27	<0.001
D5YR_SHV	-0.30	**0.81**	0.12	0.08	0.03	-0.09	0.08	<0.001
INT_EXP	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	<0.001
LNEMPL	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	<0.001
CPT	0.65	-0.18	-0.49	0.22	0.01	**1**	-0.17	0.01
CPT* NO_JOB	0.41	0.00	-1.01	0.05	-0.02	-0.53	**0.71**	<0.001
CPT* NO_IMPL	0.47	-0.19	-1.05	0.22	-0.04	-0.57	**0.73**	<0.001
CPT* NO_VTASK	0.39	-0.17	0.02	0.25	0.04	0.26	**0.69**	<0.001

Table 3-17: Loadings Model 4

	DEG STD	PERF	INT_EXP	INDUST	SIZE	CPT	CPT*DEG STD	P value
NO_JOB	**0.93**	0.10	0.07	0.10	0.03	-0.29	0.27	<0.001
NO_IMPL	**0.94**	-0.04	0.11	0.11	0.00	-0.07	0.13	<0.001
ST_TASK	**0.79**	-0.07	-0.21	-0.24	-0.04	0.43	-0.47	<0.001
D5YR_NOI	-0.06	**0.87**	0.18	-0.02	-0.04	-0.14	0.09	<0.001
D5YR_SG	-0.03	**0.84**	0.08	-0.07	0.01	0.22	-0.13	<0.001
D5YR_SHV	0.10	**0.81**	-0.27	0.09	0.04	-0.07	0.03	<0.001
INT_EXP	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	<0.001
LNEMPL	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	<0.001
CPT	0.17	-0.11	0.48	0.28	0.00	**1**	0.18	0.01
CPT* NO_JOB	0.48	0.04	0.03	0.26	0.01	-0.51	**0.70**	0.00
CPT* NO_IMPL	0.40	-0.13	0.11	0.41	-0.02	-0.55	**0.70**	0.00
CPT* NO_STASK	-0.08	-0.11	0.21	0.11	-0.15	-0.37	**0.50**	0.02

Table 3-18: Loadings Model 5

	DEG HVA	PERF	INT_EXP	INDUST	SIZE	NCPT	NCPT* DEG HVA	P value
NO_JOB	**0.94**	0.13	-0.28	-0.03	0.00	0.14	-0.05	<0.001
NO_IMPL	**0.95**	-0.03	-0.44	0.00	0.00	0.30	-0.14	<0.001
V_TASK	**0.87**	-0.11	0.78	0.03	0.00	-0.48	0.21	<0.001
D5YR_NOI	-0.01	**0.87**	0.21	-0.10	-0.08	-0.29	0.18	<0.001
D5YR_SG	0.11	**0.84**	-0.07	0.05	0.05	0.02	0.09	<0.001
D5YR_SHV	-0.10	**0.81**	-0.16	0.05	0.03	0.29	-0.28	<0.001
INT_EXP	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	<0.001
LNEMPL	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	<0.001
NCPT	0.04	0.05	0.03	-0.15	0.01	**1**	-0.27	<0.001
NCPT* NO_JOB	0.17	0.06	-0.05	-0.15	0.01	0.05	**0.88**	0.01
NCPT* NO_IMPL	0.31	0.03	-0.17	-0.22	-0.01	0.15	**0.87**	0.01
NCPT* NO_ V TASK	0.36	0.17	-0.47	-0.31	-0.08	0.01	**0.70**	0.01

Table 3-19: Loadings Model 6

	DEG STD	PERF	INT_EXP	INDUST	SIZE	NCPT	NCPT* DEG STD	P value
NO_JOB	**0.93**	0.13	0.25	-0.04	-0.04	-0.82	0.59	<0.001
NO_IMPL	**0.94**	-0.04	0.06	0.01	-0.04	-0.57	0.37	<0.001
ST_TASK	**0.79**	-0.11	-0.37	0.03	0.09	0.45	-0.43	<0.001
D5YR_NOI	0.03	**0.87**	0.16	-0.10	-0.08	-0.25	0.14	<0.001
D5YR_SG	-0.23	**0.84**	0.29	0.02	0.04	-0.23	0.35	<0.001
D5YR_SHV	0.21	**0.81**	-0.47	0.08	0.04	0.51	-0.52	<0.001
INT_EXP	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	<0.001
LNEMPL	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	<0.001
NCPT	0.41	-0.08	-0.59	-0.06	0.03	**0.89**	-0.49	<0.001
NCPT* NO_JOB	0.59	-0.01	-0.75	-0.13	0.00	-0.25	**0.87**	0.01
NCPT* NO_IMPL	0.51	-0.06	-0.57	-0.17	-0.03	-0.04	**0.84**	0.00
NCPT* NO_ S TASK	0.38	-0.10	-0.46	0.01	0.10	2.18	**0.66**	0.01

Table 3-20: Summary of PLS results - 1 year after offshoring announcement

Hypothesised Path	Financial performance	Support for Hypothesis
Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.* **High degree of offshoring (high value-added tasks) → Higher performance improvement**	+ 0.09	H1a (+) not supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.* **High degree of offshoring (standardized tasks) ≠ Higher performance improvement**	+ 0.16**	H1b (-) not supported
Hypothesis 2a1: *Captive offshoring governance mode positively effects performance improvement for organizations offshoring high value-added tasks.* **Captive offshoring mode → Higher performance improvement**	+ 0.10	H2a1 (+) not supported
Hypothesis 3a1: *Captive offshoring governance mode positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **High Degree of offshoring (high value-added tasks) X Captive offshoring mode → Higher performance improvement**	+ 0.11*	H3a1 (+) supported
Hypothesis 2a2: *Captive offshoring governance mode negatively effects performance improvement for organizations offshoring standardized tasks.* **Captive offshoring mode → Lower performance improvement**	+ 0.06	H2a2 (-) not supported
Hypothesis 3a2: *Captive offshoring governance mode negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **High Degree of offshoring (standardized tasks) X Captive offshoring mode → Lower performance improvement**	+ 0.09	H3a2 (-) Not supported
Hypothesis 2b1: *Third party offshoring governance mode negatively effects performance improvement for organizations offshoring high value-added tasks.* **Third party offshoring mode → Lower performance improvement**	- 0.08	H2b1 (-) not supported
Hypothesis 3b1: *Third party offshoring governance mode negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **High Degree of offshoring (high value-added tasks) X third party offshoring mode → Lower performance improvement**	- 0.04	H3b1 (-) not Supported
Hypothesis 2b2: *Third party offshoring governance mode positively effects performance improvement for organizations offshoring standardized tasks.* **Third party offshoring mode → Higher performance improvement**	+0.18**	H2b2 (+)supported
Hypothesis 3b2: *Third party offshoring governance modes positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **High Degree of offshoring (standardized tasks) X third party offshoring mode → Higher performance improvement**	+ 0.24**	H3b2 (+) Supported
Model 1 Degree of offshoring high value-added tasks effect on performance improvement R^2	0.19	
Model 2 Degree of offshoring Standardized tasks effect on performance improvement R^2	0.27	
Model 3 Degree of offshoring high value-added tasks X captive offshoring mode effect on performance improvement R^2	0.24	
Model 4 Degree of offshoring standardized tasks X captive offshoring mode effect on performance improvement R^2	0.27	
Model 5 Degree of offshoring high value-added tasks X third party offshoring mode effect on performance improvement R^2	0.17	
Model 6 Degree of offshoring standardized tasks X third party offshoring mode effect on performance improvement R^2	0.34	

Note: *Significant at the 10% level ($p<0.1$); **significant at the 5% level ($p<0.05$); ***significant at the 1% level ($p<0.01$).

Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

Table 3-20: Summary of PLS results - 1 year after offshoring announcement (continued)

Model fit indices and P values:	Indices	P values
Model 1		
APC	0.17	P=<0.001
ARS	0.21	P= 0.004
AVIF	2.54	Good if < 5
Model 2		
APC	0.18	P=<0.001
ARS	0.23	P= 0.003
AVIF	2.36	Good if < 5
Model 3		
APC	0.19	P=<0.001
ARS	0.27	P= 0.003
AVIF	2.33	Good if < 5
Model 4		
APC	0.19	P=<0.001
ARS	0.26	P= 0.006
AVIF	2.62	Good if < 5
Model 5		
APC	0.11	0.001
ARS	0.22	0.008
AVIF	2.45	Good if < 5
Model 6		
APC	0.21	P=<0.001
ARS	0.17	P= 0.004
AVIF	2.46	Good if < 5

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01). Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

Table 3-21: Summary of PLS results - 3 years after offshoring announcement

Hypothesised Path	Financial performance	Support for Hypothesis
Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.* **High degree of offshoring (high value-added tasks) → Higher performance improvement**	+ 0.19**	H1a (+) supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.* **High degree of offshoring (standardized tasks) ≠ Higher performance improvement**	0.17**	H1b (-) Not supported
Hypothesis 2a1: *Captive offshoring governance mode positively effects performance improvement for organizations offshoring high value-added tasks.* **Captive offshoring mode → Higher performance improvement**	+ 0.11*	H2a1 (+) supported at 10%
Hypothesis 3a1: *Captive offshoring governance mode positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **High Degree of offshoring (high value-added tasks) X Captive offshoring mode → Higher performance improvement**	+ 0.21**	H3a1 (+) supported
Hypothesis 2a2: *Captive offshoring governance mode negatively effects performance improvement for organizations offshoring standardized tasks.* **Captive offshoring mode → Lower performance improvement**	+ 0.06	H2a2 (-) not supported
Hypothesis 3a2: *Captive offshoring governance mode negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **High Degree of offshoring (standardized tasks) X Captive offshoring mode → Lower performance improvement**	+ 0.09	H3a2 (-) Not supported
Hypothesis 2b1: *Third party offshoring governance mode negatively effects performance improvement for organizations offshoring high value-added tasks.* **Third party offshoring mode → Lower performance improvement**	- 0.10	H2b1 (-) not supported
Hypothesis 3b1: *Third party offshoring governance mode negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.* **High Degree of offshoring (high value-added tasks) X third party offshoring mode → Lower performance improvement**	- 0.16**	H3b1 (-) Supported
Hypothesis 2b2: *Third party offshoring governance mode positively effects performance improvement for organizations offshoring standardized tasks.* **Third party offshoring mode → Higher performance improvement**	+0.14**	H2b2 (+)supported
Hypothesis 3b2: *Third party offshoring governance modes positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.* **High Degree of offshoring (standardized tasks) X third party offshoring mode → Higher performance improvement**	+ 0.26**	H3b2 (+) Supported
Model 1 Degree of offshoring high value-added tasks effect on performance improvement R^2	0.28	
Model 2 Degree of offshoring Standardized tasks effect on performance improvement R^2	0.23	
Model 3 Degree of offshoring high value-added tasks X captive offshoring mode effect on performance improvement R^2	0.37	
Model 4 Degree of offshoring standardized tasks X captive offshoring mode effect on performance improvement R^2	0.25	
Model 5 Degree of offshoring high value-added tasks X third party offshoring mode effect on performance improvement R^2	0.17	
Model 6 Degree of offshoring standardized tasks X third party offshoring mode effect on performance improvement R^2	0.39	

Note: *Significant at the 10% level ($p<0.1$); **significant at the 5% level ($p<0.05$); ***significant at the 1% level ($p<0.01$).

Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

Table 3-22: Summary of PLS results - 3 years after offshoring announcement (continued)

Model fit indices and P values:	Indices	P values
Model 1		
APC	0.18	P=<0.001
ARS	0.21	P= 0.004
AVIF	1.53	Good if < 5
Model 2		
APC	0.11	P=<0.001
ARS	0.22	P= 0.002
AVIF	1.44	Good if < 5
Model 3		
APC	0.14	P=<0.001
ARS	0.24	P= 0.006
AVIF	2.64	Good if < 5
Model 4		
APC	0.18	P=<0.001
ARS	0.18	P= 0.007
AVIF	1.97	Good if < 5
Model 5		
APC	0.16	0.001
ARS	0.29	0.005
AVIF	1.84	Good if < 5
Model 6		
APC	0.19	P=<0.001
ARS	0.24	P= 0.009
AVIF	1.92	Good if < 5

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01). Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

REFERENCES

Agarwal, S., and Ramaswami, S. (1992). Choice of foreign market governance modes: Effect of ownership, location and internalisation factors. *Journal of International Business Studies*, 23(1), 1-27.

Aksin, O. Z., and Masini, A. (2008). Effective strategies for internal outsourcing and offshoring of business services: An empirical investigation. *Journal of Operations Management,* 26(2), 239–256.

Allen, T.J., and Hauptman, O., 1994. "The Influence of Communication Technologies on Organisational Structure in Research and Development," in Allen, T.J. and Scott-Morton, M.S., Information Technology and the Corporation of the 1990s, New York: *Oxford University Press*, 475-483.

Allison, P.D. (1999). Logistic regression using the SAS: Theory and application. *Cary, North Carolina- based developer of analytics software (Cary, NC): SAS Institute.*

Anderson, E., and Gatignon, H. (1986). Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies*, 17(3), 1–26.

Aulakh, P.S., Masaaki, K., and Hildy, T. (2000). Export Strategies and Performance of Organisations from Emerging Economies: Evidence from Brazil, Chile, and Mexico. *Academy of Management Journal*, 43(3), 342-361.

Bagozzi, R.P., and Claes, F. (1982). Theoretical Concepts, Measurements, and Meaning," in A Second Generation of Multivariate Analysis, Vol. II: Measurement and Evaluation. C. Forell, ed. *New York: Praeger, in press*.

Bardhan, A., and Kroll, C. A. (2003). The new wave of outsourcing. In Fisher Centre for Real Estate and Urban Economics Research, Report Series No. 1103. *Berkeley: University of California.*

Barkema, H. G., Bell, J., and Pennings, J. (1996). Foreign entry, cultural barriers, and learning. *Strategic Management Journal*, 17,151-66.

Barker, V. L., and Duhaime, I. M. (1997). Strategic change in the turnaround process: Theory and empirical evidence. *Strategic Management Journal*, 18, 13-38.

Barney, J. (1991). Organisation resources and sustained competitive advantage. *Journal of Management,* 17(1), 99–120.

Baron, R. M., and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Belsley, D.A., Kuh, E., and Welsch, R.E. (1980). Regression diagnostics: Identifying influential data and sources of collinearity. *New York: John Wiley and Sons*.

Beugelsdijk, S., Pedersen, T., and Petersen, B. (2009). Is there a trend towards global value chain specialization? An examination of cross border sales of US foreign affiliates. *Journal of International Management*, 15(2), 126-141.

Bhalla, A., Sodhi, M., and Son, B. (2008). Is more IT offshoring better? An exploratory study of western companies offshoring to South East Asia. *Journal of Operations Management*, 26 (2), 322-335.

Boateng, A., and Glaister, K. W. (2002). Performance of international joint ventures: evidence for West Africa. *International Business Review*, 11, 523-541.

Brouthers, K. D., and Hennart, J.F. (2007). Boundaries of the organisation: Insights from international entry mode research. *Journal of Management*, 33(3), 395–425.

Brynjolfsson, E., Malone, T., Gurbaxani, V., and Kambil, A. (1994). Does Information Technology Lead to Smaller Organisations?. *Management Science,* 40 (12), 1628-1644.

Buckley, P.J. (2009). The effect of the global factory on economic development. *Journal of World Business*, 44 (2), 131-143.

Buckley, P.J., and Ghauri, P.N. (2004). Globalisation, economic geography and the strategy of multinational enterprises. *Journal of International Business Studies*, 35 (2), 81–98.

Buckley, P.J., and Casson, M. (1976). The future of the multinational enterprise. *London: Macmillan.*

Bunyaratavej, K., Doh, J.P., Hahn, E.D., Lewin, A.Y., and Massini, S. (2010). Conceptual Issues in Services Offshoring Research: A Multi-disciplinary Review. *Group and Organization Management.*

Bunyaratavej, K., Hahn, E. D., and Doh, J. P. (2007). International offshoring of services: A parity study. *Journal of International Management*, 13(1), 7–21.

Bunyaratavej, K., Hahn, E. D., and Doh, J. P. (2008). Multinational investment and host country development: Location efficiencies for services offshoring. *Journal of World Business,* 43: 227–242.

Bunyaratavej, K., Hahn, E. D., Doh, J. P., and Lewin, A.Y. (2011). Research: A Multidisciplinary Review Conceptual Issues in Services Offshoring. *Group and Organization Management* 36 (70).

Cantwell, J. (2009). Location and the multinational enterprise. *Journal of International Business Studies*, 40(1), 35–41.

Cantwell, J., and Mudambi, R. (2005). MNE competence-creating subsidiary mandates. *Strategic Management Journal,* 26, 1109–1128.

Cantwell, J.A., and Santangelo, G.D. (1999). The frontiers of international technology networks: sourcing abroad the most highly tacit capabilities. *Information Economics and Policy* 11: 101–123

Chalos, P., and Sung, J. (1998). Outsourcing decision and managerial incentives. *Decision Science*, 29, 901–919.

Chiao, P., and Li, P.Y. (2009). Are more exports better for a firm performance? The moderating effect of FDI. European *Journal of International Management*, 3 (3), 286–301

Chiquoine, B., and Hjalmarsson, E. (2009). Jacknifing stock return predictions. *Journal of Empirical Finance,* 16, 793–803.

Coase, R. H. (1937). The nature of the organisation. *Economica*, 4(16), 386–405.

Conner, K., and Prahalad, C.K. (1996). A resource-based theory of the organisation: Knowledge versus opportunism. *Organization Science*, 7(5), 477-501.

Contractor, F.J., Kumar, V., Kundu, S., and Pedersen, T. (2010). Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions. *Journal of Management Studies*, 47, 1417–1433.

Contractor, F. J., Kumar, V., and Kundu, S. K. (2007). Nature of the relationship between international expansion and performance: The case of emerging market organisations. *Journal of World Business*, 42(4): 401–417.

Coucke, K., and Sleuwaegen, L. (2008). Offshoring as a survival strategy: Evidence from manufacturing organisations in Belgium. *Journal of International Business Studies*, 39, 1261–1277.

Couto, V., Mani, M., Lewin, A. Y., and Peeters, C. (2006). The globalization of white collar work – Facts and fallout of next generation offshoring. *Booz Allen Hamilton Viewpoint, Offshoring Research Network* .

Cyert, R. M., and March, J. G. (1963). A Behavioral Theory of the Organisation. *Englewood Cliffs, NJ: Prentice-Hall*

D'Agostino, L. M., Laursen, K., and Santangelo, G.(2012).The effect of R&D offshoring on the home knowledge production of the Organisation for Economic Co-operation and Development (OECD) investing regions. *Journal of Economic Geography,* 1–31, doi:10.1093/jeg/lbs012.

Davis, G. F., and Marquis, C. (2005). Prospects for theory about organizations in the early 21st century: Institutional fields and mechanisms. *Organization Science*, 16(4), 332–343.

Demirbag, M., and Mirza, H. (2000). Factors affecting international joint venture success: an empirical analysis of foreign–local partner relationships and performance in joint ventures in Turkey. *International Business Review*, 9(1), 1-35.

Dess, G.G., Rasheed, A., McLaughlin, K., and Priem, R. (1995). The new corporate architecture. *Academy of Management Executive*, 9 (3), 7–20.

Dibbern, J., Goles, T., Hirschheim, R. A., and Jayatilaka, B. (2004). Information Systems Outsourcing: A Survey and Analysis of the Literature. *The Data Base for Advances in Information Systems,* 35(4), 6-102.

Di Gregorio, D., Musteen, M., and Thomas, D. (2009). Offshore outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies, 40*, 969-988.

Doh, J. P. (2005). Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies*, 42(3), 695–704.

Doh, J.P., Bunyaratavej, K., and Hahn, E. (2009). Separable but not equal: The location determinants of discrete services offshoring activities. *Journal of International Business Studies.* 40, 926-943.

Dossani, R., and Kenney, M. (2007). The next wave of globalization: Relocating service provision to India. *World Development*, 35(5), 772–791.

Drucker, P. F. (1959). Landmarks of tomorrow. *New York: Harper and Bros.*

Elango, B., and Sambharya, R.B. (2004). The influence of industry structure on the entry mode choice of overseas entrants in manufacturing industries. *Journal of International Management*, 10, 107–124

Ellis, A., and Carlton, H. (1965). The Transfer of Learning. *New York: MacMillan*.

Ellram, L., Tate, W., and Billington, C. (2008). Offshore outsourcing of professional services: A transaction cost economics perspective. *Journal of Operations Management*, 26(2), 148–163.

Erber, G., Sayed-Ahmed, A. (2005). Offshore Outsourcing: A Global Shift in the Present IT Industry. *Intereconomics*, 40(2), 100-112.

Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies*, 42(3), 675–683.

Fisher, T. F., and Ranasinghe, M. (2001). Culture and foreign companies' choice of entry mode: The case of the Singapore building and construction industry. *Construction Management and Economics*, 19(4), 343-353.

Fladmoe-Lindquist, K., and Jacque, L. L. (1995). Control modes in international service operations: the propensity to franchise. *Management Science*, 41 (7), 1238–49.

Fornell, C. and Larker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39-50.

Franko, L. G. (1989). Global corporate competition: Who's winning, who's losing, and the R&D factor as one reason why. *Strategic Management Journal*, 10, 449-474.

Galloway, R.L., and Whyte, G.A. (1989). The information systems function as a service operation. *International Journal of Operations and Production Management*, 9(4).

Gatignon, H., and Anderson, E. (1988). The multinational corporation's degree of control over foreign subsidiaries: An empirical test of a transaction cost explanation. *Journal of Law, Economics and Organization, 4*(2), 305–336.

Gefen, D., and Straub, D. (2000).The Relative Importance of Perceived Ease-of-Use in IS Adoption: A Study of e-Commerce Adoption. *Journal of the Association for Information Systems (JAIS)*, 1(8), 1-30.

Gereffi, G., Humphrey, J., and Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12, 78–104.

Gilley, K., and Rasheed, A. (2000). Making more by doing less: An analysis of outsourcing and its effects on firm performance. *Journal of Management*, 26(4), 763–790.

Ginsberg, A. (1988) Measuring and modelling changes in strategy: Theoretical foundations and empirical directions. *Strategic Management Journal*, 9, 559-575.

Glaister, K.W., and Buckley, P.J. (1996). Strategic motives for international alliance formation. *Journal of Management Studies*, 33 (3), 301–332.

Gooris, J., and Peeters, C. (2012) Home-Host Country Distance and Governance Choices in Service Offshoring. *Ecore discussion paper.*

Grimpe, C., and Kaiser, U. (2010). Balancing internal and external knowledge acquisition: the gains and pains from R&D outsourcing. *Journal of Management Studies*.

Grùnhaug, K., and Kvitastein, O. (1993), Distributional involvement in international strategic business units. *International Business Review*, Vol. 2 No. 1, pp. 1-14.

Gujarati, D.N. (2003). Basic econometerics (4th ed.). *New York: McGraw-Hill.*

Hahn, E.D., Doh, J.P., and Bunyaratavej, K. (2009). The evolution of risk in information systems offshoring: The effect of home country risk, firm learning, and competitive dynamics. *Management Information Systems Quarterly,* 33(3), 597-616.

Hair, J., Rolph, A., and Tatham, R. (1987). Multivariate Data Analysis. *Macmillan, New York, NY.*

Haiyang, C., and Hu, M. Y. (2002). An analysis of determinants of entry mode and its effect on performance. *International Business Review*, 11(2), 193-210.

Hayes, A. F., and Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioral Research*, 45(4), 627-660.

Hauptman, O., 1986. Influence of Task Type on the Relation between Communication and Performance: *The Case of Software Development, R&D Management*, 16, 2, 127-139

He, Z.L., and Wong, P.K. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science* 15, 481–494.

Heikkilä, J., and Cordon, C. (2002). Outsourcing: a core or non-core strategic management decision? *Strategic Change*, 11(4), 183-193.

Heijmen, T., Lewin, A. Y., Manning, S., Perm-Ajchariyawong, N., and Russell, J. W. (2009). 2007–2008 ORN survey report: Offshoring reaches the C-suite. *Raleigh, NC: The Conference Board and Duke University, Research Report 1445-09-RR.*

Henderson, R., and Cockburn, I. (1994). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Journal*, 15, 63–84.

Hennart, J. (1994). The comparative institutional theory of the firm: some implications for corporate strategy. *Journal of Management Studies*, 31 (2), 193-207.

Hoffman, E., McCabe, K., and Smith, V. (1998). Behavioral foundations of reciprocity: experimental economics and evolutionary psychology. *Economic Inquiry,* 36, 335–352.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Time to success in Offshoring Business Processes. *Management International Review*, 51, 65-92.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Offshoring governance modes for offshoring activities: A comparison of US and German organisations. *International Business Review*, 20, 291-313.

Hutzschenreuter, T., Pedersen, T., and Volberda, H. W. (2007). The role of path dependency and managerial intentionality: A perspective on international business research. *Journal of International Business Studies*, 38(7), 1055–1068.

Ivarsson, I. and Alvstam, C.G. (2013). Embedded internationalization: How small-and medium-sized Swedish companies use business-network relations with Western customers to establish own manufacturing in China. *Asian Business & Management*, 12(5), 565-589

Jabbour, L. (2010).Offshoring and Firm Performance: Evidence from French Manufacturing Industry. *The World Economy*, 33(3), 507-524.

Jahns, A., Hartmann, E., and Bals, L. (2006). Offshoring: dimensions and diffusion of a new business concept. *Journal of Purchasing and Supply Management*, 12 (4), 218–231.

Janis, I. L., and Mann, L. (1977). Decision Making: A Psychological Analysis of Conflict, Choice and Commitment. *New York: Free Press.*

Jensen, P.D.Ø. (2009). A learning perspective on advanced services offshoring. *Journal of International Management*, 15, 181-193.

Jensen, P. D. Ø., and Pedersen, T. (2012). Offshoring and international competitiveness: antecedents of offshoring advanced tasks. *Academy of Marketing Science*, 40, 313–328.

Jensen, P. D. Ø., Kirkegaard, J. F., and Laugesen, N.S. (2006).Offshoring in Europe— Evidence of a Two-Way Street from Denmark. *Institute for International Economics*, working paper series, WP 06-3.

Johanson, J., & Vahlne, J. E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of international business studies*, *40*(9), 1411-1431.

Li, J. (1995). Foreign entry and survival: Effects of strategic choices on performance in international markets. *Strategic Management Journal, 16*(5), 333–351.

Kaka, N. (2003). A choice of models. *McKinsey Quarterly*, 4, 46–47.

Kakabadse, A., and Kakabadse, N. (2005). Outsourcing: current and future trends. *Thunderbird International Business Review*, 47, 183–204.

Karmarker, U. (2004). Will you survive the services revolution? *Harvard Business Review.*

Kedia, B. L., and Mukherjee, D. (2009). Understanding offshoring: A research framework based on disintegration, location, and externalization advantages. *Journal of World Business, 44*(3), 250–261.

Keil, T., Maula, M.V.J., Schildt, H.A., and Zahra, S.A. (2008). The effect of offshoring governance modes and relatedness of external business development activities on innovative performance. *Strategic Management Journal*, 29(8), 895–907.

Kenney, M., Massini, S., and Murtha, T.P. (2009). Offshoring administrative and technical work: New fields for understanding the global enterprise. *International Journal of Business Studies*, 40(6), 887-900.

Kimberly, J. R., and Quinn, R. E. (1984) Managing organizational transitions. Homewood, IL: Irwin.

Kline, R.B. (2005). Principles and Practice of Structural Equation Modelling. *The Guilford Press: New York.*

Kline, R.B. (2009). Becoming a behavioural Science Researcher: A Guide to Producing Research that Matters. *The Guilford Press: New York.*

Kock, N. (2009). Information systems theorizing based on evolutionary psychology: An interdisciplinary review and theory integration framework. *Management Information Systems Quarterly,* 33(2), 395-418.

Kock, N. (2011).Using Warp PLSine Collaboration studies: Descriptive statistics, settings, and key analysis results. *International Journal of e-Collaboration*, 7(2), 1–18.

Kogut, B., and Singh, B. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19(3), 411-32.

Kogut, B., and Zander, U. (1992). Knowledge of the Organisation, Combinative Capabilities, and the Replication of Technology. *Journal of International Business Studies.*

Kotabe, M. (1990). The relationship between offshore sourcing and innovativeness of U.S. multinational organisations: An empirical investigation. *Journal of International Business Studies,* 21(4), 623–638.

Kotabe, M., and Murray, J. Y. (2004). Global sourcing strategy and sustainable competitive advantage. *Industrial Marketing Management*, 33(1), 7−14.

Kotabe, M., Mol, M. J., and Murray, J. Y. (2009). Global sourcing strategy. *The SAGE handbook of international marketing. London: Sage Publications.*

Kumar, N., Mohapatra, P. and Chandrasekhar, S. (2009). India's Global Powerhouses: How they are taking on the World. *Harvard Business School Press, Boston, MA.*

Lai, E. L.C., Riezman, R., and Wang, P. (2009). Outsourcing of innovation. *Economic Theory*, 38(3), 485–515.

Langlois, R.N. (1992). Transaction-cost economics in real time. *Industrial and Corporate Change*, 1, 99-127.

Leiblein, M.J., Reuer, J.J., and Dalsace, F. (2002). Do make or buy decisions matter? The influence of organizational offshoring entry on technological performance. *Strategic Management Journal,* 23, 817-33.

Levinthal, D.A., and March, J.G. (1993). The Myopia of Learning. *Strategic Management Journal* 14, 95-112.

Levy, D.L. (2005).Offshoring in the new global political economy. *Journal of Management Studies*, 42 (3), 685–693

Lewin, A. Y., Massini, S., and Peeters, C. (2009). Why are companies offshoring innovation? The emerging global race for talent. *Journal of International Business Studies*, 40(6), 901–925.

Lewin, A.Y., Massini, S., Ajchariyawong, N.P., Sappenfield, D., and Walker, J. (2009). Getting serious about offshoring in a struggling economy. *Shared services and outsourcing network (SSON)*, 19–23.

Lewin, A. Y., and Couto, V. (2007). Next Generation Offshoring: The Globalization of Innovation. *Duke University Centre for International Business Education and Research (CIBER)/Booz Allen Hamilton Report, Durham.*

Lewin, A. Y., and Peeters, C. (2006). Offshoring work: Business hype or the onset of fundamental transformation. *Long Range Planning*, 39 (3), 221–239.

Lewin, A. Y., Weigelt, C., and Emery. (2004). Adaptation and selection in strategy and change: Perspectives on strategic change in organizations. *Handbook of organization change and innovation*, 108–160.

Loh, L., and Venkatraman, N. (1992). Determinants of IT outsourcing a cross-sectional analysis. *Journal of Management Information Systems*, 9(1), 7-24.

Luo, Y., Wang, S.L., Jayaraman, V., and Zheng, Q. (2012). Governing business process offshoring: Properties, processes, and preferred modes. *Journal of World Business, 24* (7), 13.

Manning, S., Massini, S., Peeters, C., and Lewin. A.Y. (2012). Global Co-Evolution of Firm Boundaries: Process Commoditization, Capabilities, Development, and Path Dependencies. *Centre Emile Bernheim* (*CEB).*

Manning, S., Lewin, A.Y., Schuerch, M. 2011. The Stability of Offshore Outsourcing Relationships: The Role of Relation Specificity and Client Control. *Management International Review, 51, forthcoming.*

Manning, S., Massini, S., and Lewin, A. Y. (2008). A dynamic perspective on next-generation offshoring: The global sourcing of science and engineering talent. *Academy of Management Perspectives,* 22(3), 35 54.

Maskell, P., Pedersen, T., Petersen, B., and Dick, N.J. (2007). Learning paths to offshore outsourcing: From cost reduction to knowledge seeking. *Industry and Innovation*, 14, 239–257

Massini, S., Ajchariyawong, N.P., and Lewin, A.Y. (2010). Role of Corporate-Wide Offshoring Strategy on Offshoring Drivers, Risks and Performance. *Industry and Innovation*, 17(4).

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management,* 27(1), 45-63.

Metters, R., and Verma, R. (2008). History of offshoring knowledge services. *Journal of Operations Management* 26(2), 141–147.

Mudambi, R. (2008). Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography*, 8, 699–725.

Mudambi, S. M., and Tallman, S. (2010). Make, buy or ally? Theoretical perspectives on knowledge process outsourcing through alliances. *Journal of Management Studies*, 47, 1434–1456.

Mykland, P.A., and Zhang, L. (2006). ANOVA for diffusions and Ito processes. *Annual Statistics forthcoming*, 34(4).

Nicholson, N., Rees, A., and Rooney, A.B. (1990). Strategy, Innovation and Performance. *Journal of Management Studies*, 27(5), 511-34.

Nieto, M.J., and Rodriguez, A. (2011). Offshoring of R&D: Looking abroad to improve innovation performance. *Journal of International Business Studies*, 42**,** 345–361, doi:10.1057/jibs.2010.59.

Nunnally, J.C. and Bernstein, I.H. (1994). Psychometric Theory. McGraw-Hill, Inc.: New York.

Nunnally, J.C. (1978). Psychometric Theory. McGraw Hill: New York. *International Business Studies, 19*(3), 411–432.

Okhuysen, G., and Bonardi, J.P. (2011). The Challenges of Building Theory by Combining Lenses. *Academy of Management Review*, 38 (1), 6-11.

Oliva, R., and Kallenberg, R. (2003). Managing the transition from products to services. *International Journal of Service Industry Management*, 14, 160–172.

Osborne, J.W. (2008). Best Practices in Quantitative Methods. *Sage Publications: Thousand Oaks, CA*.

Paju, T. (2007). Conceptual model of R&D offshore outsourcing. *Journal of Global Business and Technology*, 3(1), 49–61.

Palenzuela, V. A., and Bobillo, A. M. (1999). Transaction costs and bargaining power: entry mode choice in foreign markets. *Multinational Business Review*, 62–75.

Pan, Y., and David, K. (1996). Cooperative strategies of foreign organisations in an overseas country. *Journal of International Business Studies*, 27(5), 929-46.

Pan, Y., and Li, X. (2000). Joint venture formation of very large multinational firms. *Journal of International.*

Pangarkar, N., and Lim, H. (2003). Performance of foreign direct investment from Singapore. *International Business Review,* 12 (5), 601-624.

Pedhazur, E.J. (1997). Multiple regression in behavioral research. *International Business Review, 11*(2), 193–210.

Penrose, E. T. (1959). The theory of the growth of the organisation. *Oxford: Blackwell*.

Penter, K., J. W. Wreford, G. P. Pervan, and F. Davidson. (2013). Offshore BPO Decisions and Institutional Influence on Senior Managers. In *Advances In Global Sourcing*, 93-116. London: Springer.

Pisano, G. P. (1990). The R&D boundaries of the firm: An empirical analysis. *Administrative Science Quarterly*, 35(1), 153–176.

Pisano, G. P., Russo, M. V., and Teece, D. J. (1988). Joint ventures and collaborative arrangements in the telecommunications equipment industry. In D.C. Mowery (Ed.), International collaborative ventures in US manufacturing: 23–70. *Cambridge, MA: Ballinger Publishing Company.*

Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, 12, 95–117.

Porter, M. E. (1990). The competitive advantage of nations. New York The Free Press.

Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. *New York: Free Press.*

Prahalad, C.K., and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review* 68(3), 79–93.

Preacher, K.J., and Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, and Computers,* 36 (4), 717-731.

Profitable multinational corporation. *Strategic Management Journal, 23*(7), 637–653.

Quenouille, M. H. (1949). Approximate Tests of Correlation in Time-Series. *Journal of the Royal Statistical Society*, 11(1), 68-84.

Reich, R. B. (1991). The work of nations. *New York: Knopf.*

Robertson, T., and Gatignon, H. (1998). Technology development mode: A transaction cost conceptualization. *Strategic Management Journal*, 19(6), 515–531.

Rothaermel, F.T., Hitt, M.A., and Jobe, L.A. (2006). Balancing vertical integration and strategic outsourcing: Effects on product portfolio, product success, and firm performance. *Strategic Management Journal*, 27, 1033-56.

Roza, M., Bosch, F., and Volberda, H.W. (2011). Offshoring strategy: Motives, functions, locations, and governance modes of small, medium-sized and large firms. *International Business Review*, 20, 314–323.

Sako, M. (2006). Outsourcing and offshoring of business services: implications for productivity. *Oxford Review of Economic Policy*, 22(4), 499–512.

Schilling, M.A., and Steensma, H.K. (2002). Disentangling the theories of firm boundaries: A path model and empirical test. *Organization Science*, 13 (4), 387–401.

Schreyögg, G., and Kliesch. E, M. (2007). How dynamic can organizational capabilities be? Towards a dual-process model of capability dynamization. *Strategic Management Journal*, 28, 913-933.

Simmonds, P. G. (1990). The combined diversification breadth and mode dimensions and the performance of large diversified firms. *Strategic Management Journal*, 11(5), 399-410.

Smith, M.A., Mitra, S., and Narasimhan, S. (1998). Information systems outsourcing: A study of pre-event organisation characteristics. *Journal of Management Information Systems, Fall*, 15(2), 61-93.

Somlev, L.P., and Hoshino, Y. (2005).Influence of location factors on establishment and ownership of foreign investments: The case of the Japanese manufacturing firms in Europe. *International Business Review*, 14(5), 577-598.

Stevens, J.P. (2002). Applied multivariate statistics for the social sciences. *NJ: Lawrence Erlbaum.*

Stopford, J. M., and Wells, L.T. (1972). Managing the Multinational Enterprise. *Basic Books, New York.*

Stratman, J. K. (2008). Facilitating offshoring with enterprise technologies: Reducing operational friction in the offshoring entry and production of services. *Journal of Operations Management,* 26(2), 275–287.

Stringfellow, A., Teagarden, M. B., and Nie, W. (2008). Invisible costs in offshoring services work. *Journal of Operations Management*, 26(2), 164–179.

Subramaniam, M., and Venktraman, N. (2001). Determinants of transnational new product development capability: Testing the influence of transferring and deploying tacit overseas knowledge. *Strategic Management Journal*, 22, 359-78.

Tebachnick, B.G., and Fidell, L.S. (2001). Using multivariate statistics. *Boston: Allyn and Bacon*.

Trefler, D. (2005). Offshoring: threats and opportunities. *Offshoring White-Collar Work-The Issues and the Implications.*

Thornhill, S. (2006). Knowledge, innovation and firm performance in high- and low-technology regimes. *Journal of Business Venturing*, 21, 687-703.

Thornton, P.H., and Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: executive succession in the higher education publishing industry. *American Journal of Sociology, 105, 801–843.*

Tiwana, A. (2008). Do bridging ties complement strong ties? An empirical examination of alliance ambidexterity. *Strategic Management Journal, 9, 251–72.*

Tukey, J.W. (1958). Bias and confidence in not-quite large samples. *The Annals of Mathematical Statistics*. 29(2), 614.

Tyre, M. and Hauptman, O. (1992). Effectiveness of organisational response to technological change in the production process. *Organisation Science*, 3(3), Printed in U.S.A.

The United Nations Conference on Trade and Development (UNCTAD) and Roland Berger Associates (2004). Service Offshoring Takes Off in Europe – In Search of Improved Competitiveness. Paris: *The United Nations Conference on Trade and Development (UNCTAD).*

The United Nations Conference on Trade and Development (UNCTAD). (2004). World investment report, the shift towards services. *New York, Geneva: VN.*

Vermeulen, F., and Barkema, H. (2002). Pace, rhythm, and scope: Process dependence in building West Africa. *International Business Review, 11*(5), 523–541.

Vivek, S. D., Banwet, D. K., and Shankar, R. (2008). Analysis of interactions among core, transaction and relationship-specific investments: The case of offshoring. *Journal of Operations Management*, 26(2), 180–197.

Weigelt, C. (2009). The effect of outsourcing new technologies on integrative capabilities and performance. *Strategic Management Journal* 30(6), 595-616.

Westner, M., and Strahringer, S. (2010). Determinants of success in IS offshoring projects: Results from an empirical study of German companies. *Information and Management*, 47(5/6), 291–299.

Whitaker, J., Mithas, S., and Krishnan, M. (2005). Antecedents of onshore and offshore business process outsourcing. Conf. Inform. Systems .*Association for Information Systems,* 85–96.

Williamson, O.E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36, 269–296.

Williamson, O.E. (1985). The Economic Institutions of Capitalism. *The Free Press, New York.*

Williamson, O. E. (1975). Markets and hierarchies: Analysis and antitrust implications. *New York, NY: Free Press.*

Woodcock, C. P., Beamish, P. W., and Makino, S. (1994). Ownership-based entry mode strategies and international performance. *Journal of International Business Studies, 25*(2), 253–273.

Yigang, P., and Chi, P. S. K. (1999). Financial performance and survival of multinational corporations in China. *Strategic Management Journal, 20*(4), 359–374.

Youngdahl, W., and Ramaswamy, K. (2008). Offshoring knowledge and service work: A conceptual model and research agenda. *Journal of Operations Management*, 26(2), 212–221.

Zahra, S. A., and George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185-203.

Zahra, S.A., and Hayton, J.C. (2008). The effect of international venturing on firm performance: The moderating influence of absorptive capacity. *Journal of Business Venturing*, 23, 195-220.

Chapter 4

4 RESEARCH PAPER III: The relationship between the degree of offshoring and performance improvement: The moderating effect of absorptive capacity

Abstract

Many organizations are now pursuing opportunities for cost-reduction, efficiency-enhancing and growth through offshoring but evidence on the performance gains has been contradictory. We argue that past researchers have overlooked the importance of organizational learning in offshoring and we propose that the organization's ability to obtain anticipated performance improvement from offshoring is strongly influenced by its absorptive capacity.

Based on a survey of 77 Australian firms we show that offshoring of high value-added tasks and standardized tasks both lead to performance gains, but absorptive capacity positively moderates the relationship between the degree of offshoring of high value-added tasks and offshoring performance gains. These results suggest that organizations with higher absorptive capacity are able to benefit more from offshoring of high value-added tasks. Hence, in order to derive the most benefit from offshoring, organizations should develop their organizational learning ability. Through this research, we make some important contributions and offer implications for research and practice.

Keywords: the degree of offshoring, performance, high value-added tasks, standardized tasks, absorptive capacity.

4.1 Introduction

In the international business arena, a relatively new form of internationalisation strategy that is increasingly common is to offshore disaggregated tasks or business functions across national borders for the purpose of serving domestic or global markets (Lewin, Massini & Peeters, 2009; Kenney, Massini & Murtha, 2009). Prior research studies suggest that motivations include reducing labor costs, accessing talent, increasing speed to market, establishing access to new markets and other growth-related objectives (Massini et al. 2010). Offshoring enables firms to expand international markets or exploit foreign resources without some of the risks associated with more traditional strategies such as foreign direct investment (FDI) or international joint ventures.

However, researchers have reported contradictory findings about the effect of offshoring on performance improvement. Several authors have either reported negative performance effects (Fifarek, Veloso & Davidson, 2008; Kotabe, 1990), or have been unable to find a positive relationship between offshoring and performance improvement (Sodhi & Son, 2008; Gilley & Rasheed, 2000).

Prior research has shown that learning increases performance improvement and positively contributes to competitive positioning (Levinthal & March, 1993). Offshoring involves experience-based learning (Levin, 2000; Martin & Salomon, 2003), i.e. organizations replicate their routines by relocating existing activities to offshore locations. This experiential learning from offshoring can lead to improved performance improvement (Luo & Peng, 1999; March, 1991). A long research tradition in international business (IB) has also found that the process of internationalisation is a learning process for most firms, a process that often requires many years (Ruigrok and Wagner, 2003; Tsang, 1996). We suggest that some of these conflicting findings can be reconciled by a more detailed analysis of the nature of the tasks offshored and the learning effects that occur through offshoring and in particular the concept of absorptive capacity.

Jensen (2009) has investigated the question of the influence of organizational learning on offshoring. He found that the literature covering this area was limited by mainly considering how organizations learn. He argued that research in this area should be expanded to include other dimensions such as who (i.e. types and characteristics of organizational tasks including advanced services and standardized tasks) learns what, and how (i.e. process) they learn.

We agree that the research question in the organizational learning literature is lacking other dimensions, and in this paper we expand Jensen's (2009) research by adding a new important dimension that is the '*outcome*' that '*who*' achieves from 'how'. In other words, we focus on how those organizations that go through the offshoring process capitalise on the gained knowledge to achieve a better performance and growth.

Thus, in this paper, we use an organizational learning perspective to propose that organizations, which engage in offshoring activities gain new knowledge and capabilities that, allow them to exploit new opportunities in foreign markets. In particular, we build on the organizational learning work of Cohen and Levinthal (1989, 1990). They investigated the concept of '*absorptive capacity*' and defined it as the "ability of a firm to recognise the value of new, external information, assimilate it, and apply it to commercial ends" (p.128).

This paper therefore focuses on exploring the extent to which offshoring can benefit through the successful integration and exploitation of new knowledge and capabilities gained from foreign markets. Specifically we investigate the effect of organizations' investments in building their absorptive capacity on their ability to obtain the anticipated performance benefits from offshoring.

We examine the influence of absorptive capacity on the relationship between the degree of offshoring high value-added core and near-core tasks and performance. Absorptive capacity indicates the innovative capabilities of an organization to recognise the value of new external information, assimilate it, and apply it to commercial ends (Cohen & Levinthal, 1990). Hence, absorptive capacity is fundamentally a function of the organization's level of prior related knowledge.

Using data from an online survey of 77 Australian organizations, this study examines the following three research questions: First, how can organizations capitalise on new knowledge? Second, to what extent is the performance of an offshoring organization associated with its degree of offshoring? Third, to what extent does organizational absorptive capacity moderate the relationship between the degree of offshoring of high value-added tasks and performance improvement? Fourth, to what extent does organizational absorptive capacity moderate the relationship between the degree of offshoring of standardized tasks and performance improvement?

The structure of the paper is as follows: First, it outlines the theoretical background and reviews the recent literature on the relationship between offshoring and performance improvement. It then assesses the concept of offshoring and its effects on performance improvement and builds an organizational learning framework into the offshoring perspective (Argyris & Schön, 1978; Dodgson, 1993; Huber, 1991). We then discuss the interaction between organizational learning, the degree of offshoring high value-added task and organizational performance. Next, we present an empirical study that tests these hypotheses. We conclude with a discussion of the study's findings and their implications for practice and future research.

4.2 Theoretical Overview

4.2.1 The Evolution of absorptive capacity concept

The absorptive capacity concept advanced from past research back in the 1980's, such as researches related to the effect of research and development on financial performance and organizational learning (Van den Bosch, Van Wijk, Volberda, 2003; Fiol & Lyles, 1985; Hedberg, 1981; Levitt & March, 1988).

Cohen and Levinthal (1989, 1990) defined the term *absorptive capacity* as the "ability of a firm to recognise the value of new, external information, assimilate it, and apply it to commercial ends" (p.128). Cohen and Levinthal (1990) then argued that absorptive capacity mediates the speed, frequency and magnitude of innovation. The development of an organization's absorptive capacity has a strong path dependency on prior investment in research and development and the existing knowledge base of an organization.

The concept of absorptive capacity has since been extended to the areas of organizational and international business studies. Many scholars have refined the concept further. Amongst these scholars are Lane, Salk and Lyles (2001); Zahra and George (2002), Lewin and Massini (2003); Van den Bosch, Van Wijk, Volberda (2003); Lewin and Massini, Lane et al. (2006), Todorova and Durisin (2007); Lewin, Massini and Peeters (2008); Zhra and Hayton (2008); Massini (2010); Vasudeva and Anand (2011); and Wales et al. (2012).

Each one of these scholars examined absorptive capacity from a different perspective, but due to space restrictions, this study will only mention the main contributions to the absorptive capacity concept. For instance, Zahra and George (2002) further refined the concept of absorptive capacity as a set of capabilities that underlie the processes identified by Cohen and Levinthal (1990), from the acquisition and assimilation of external knowledge, to the transformation and exploitation of that external knowledge. Zahra and George (2002) suggested that the first two aspects (i.e. acquisition and assimilation) enable an organization to capture the uncertainty factor associated with the organization ability to exploit the knowledge. While the transformation and exploitation component of absorptive capacity point to an organization's ability to realise its absorptive capacity.

A more recent conceptual approach to absorptive capacity is a study by Lewin, Massini and Peeters (2008). This study, building on and extending the categorisation proposed by Lewin and Massini (2003) proposed a routine based model of absorptive capacity that also operationalises the absorptive capacity constructs. This study decomposed the absorptive capacity's constructs into two capabilities, internal and external, and further identified the configuration of meta-routines underlying these two capabilities. Lewin et al. (2008), further proposed that the ability of an organization to discover and implement complementarities between practiced absorptive capacity routines may explain why some organizations are successful early adopters and most other organizations are imitators.

4.2.2 Organizational learning theory and absorptive capacity

Van den Bosch, Van Wijk and Volberda (2003) refer the relationship between absorptive capacity and the organizational learning and innovation literatures to the twofold roles of research and development. These roles are represented both in creating innovations and new knowledge as well as improving learning. Cockburn and Henderson (1998) demonstrated the relationship between absorptive capacity and organizational learning and innovation by noting that organizations have to invest in absorptive capacity starting from simple internal research then improving this ability in order to access and learn from higher-level of research. Similarly, organisational experiential-learning and absorptive capacity means that knowledge development has a tendency to be a cumulative process (Johanson & Vahlne, 2009).

Van Wijk et al. (2001) concluded that the two types of knowledge transfers: vertical and

horizontal have different effect on absorptive capacity. That is, vertical knowledge-transfers increase the depth dimension of absorptive capacity while horizontal knowledge transfers increase the breadth dimension of absorptive capacity. According to the authors, the depth dimension of absorptive capacity appeared to have no significant effect on the degree of exploration over exploitation, but the breadth dimension of absorptive capacity had a positive influence on the level of exploration over exploitation.

Ivarsson and Alvstam, (2013) examining small and medium-sized Swedish companies in the manufacturing industry, concluded, "A key to learning in firms is their ability to develop dynamic capabilities, that is, the capacities to change and improve existing operations through technology development and building relations with relevant business networks, both of which are capacities that can be exploited in international markets" (p.570).Stock et al. (2001) reported an inverted-U shape relationship between absorptive capacity (i.e.they defined it as research and development intensity) and new product development performance in the computer modem industry. Their findings were that increasing absorptive capacity leads to an increase in new product development performance. Many scholars view an organization's absorptive capacity as a moderator for organizational outcomes. For example, Cohen and Levinthal (1990) linked absorptive capacity to, in addition to other factors including innovation. Examining offshoring organizations, Roza (2011) confirmed that absorptive capacity has a significant moderator effect on organizational growth.

4.2.3 Offshoring and performance improvement

The term offshoring is most commonly associated with, and is often conflated with, outsourcing, where the firm subcontracts some activity which was previously done in-house to an external party. However, in this research paper offshoring phenomenon relates to the organizational tasks, which are subcontracted to parties operating outside of the national borders of the offshoring party (cross-border) (Erber & Sayed-Ahmed, 2005). This includes offshore functions located within the organization's boundaries, so-called captive offshoring, and external to the organization's boundaries, so-called offshore outsourcing (i.e.third party) (Massini, Perm-Ajchariyawong & Lewin, 2010).

Organizations rarely offshore a whole function and they usually offshore only some of the tasks related to these functions (Jensen & Pedersen, 2012). Therefore, in this paper we focus

on analysing offshoring at a more disaggregated task-level instead of the function/activity level (Jensen & Pedersen, 2012). Such analysis at a task-level is more likely to be able to capture the linkages and interdependencies between tasks where they are undertaken at onshore and offshore locations (Doh et al. 2009; Jensen, 2009; Jensen & Pedersen, 2012; Kedia & Mukherjee, 2009; Kumar et al. 2009; Mudambi & Tallman 2010).

In a more general sense, it has been suggested in previous offshoring research, that there is a correlation between offshoring and financial performance (Kotabe and Murray, 2004). Farrell, (2005) argued that investing the savings gained for offshoring jobs in higher value-added opportunities can lead to volume growth, better shareholder's return or better prices to end customers in the home country.

However, several authors have either reported negative performance effects (Fifarek, Veloso and Davidson 2008; Kotabe 1990) or been unable to find a positive relationship between offshoring and organizational performance (Gilley and Rasheed 2000). It is clear therefore, that there is a need for more research in this area given that many have conceptually argued for a positive relationship between the offshoring level and performance (Barker & Duhame, 1997; Bunyaratavej et al. 2007; Erber & Sayed-Ahmed, 2005; Farrell, 2005; Kimberly & Quinn, 1984; Zhang, 2006).

To further evaluate the link between offshoring and financial performance (Novak & Stern, 2008), this paper explores the effect of absorptive capacity at the disaggregated task level. Using prior research as a guide, we use a multi-item approach to measuring performance instead of a single performance measure (Kotabe 1992; Murray, Kotabe & Wildt 1995).

4.2.4 Organizational learning and performance improvement

In this paper, we focus on the learning effects that occur through offshoring. There has been extensive research in organizational studies, which has examined organizational learning as one of the key factors in determining organizational performance (Fiol and Lyles, 1985; Huber, 1991). A related research stream in international business strategy has also argued that internationalization can be viewed as a learning process for the organization (Ruigrok and Wagner, 2003; Tsang, 1996). Experience creates and fosters an organisation's knowledge of a foreign market, and that accumulation of knowledge influences decisions about the level of

211

commitment and the volume of activities that will ultimately result (Johanson & Vahlne, 2009). The internationalizing commitment will continue as long as performance improves (Johanson & Vahlne, 2009).

Sullivan (1994) argues that as organizations expand into new geographic environments, they encounter new challenges, often requiring them to reconfigure their internal systems. We continue this tradition by viewing offshoring as offering many opportunities for continuous "sequential learning by doing processes" (Lewin and Peeters 2006b, p.236). A study by Jensen (2009) looking at offshoring from an organizational learning perspective showed that when offshoring partnerships mature and organizations gain experience, learning in both home and host organizations evolve over time. This leads to a process of strategic transformation in which both partners use input from their offshoring partnership to upgrade their organizations and business processes. These previous studies, therefore, support the idea that organizational learning and offshoring performance are linked. Our study aims to extend this idea in two ways by examining the contingent effect of task type and the moderating effect of organizational absorptive capacity.

4.2.5 Interaction between the degree of offshoring, absorptive capacity and performance improvement

According to organizational learning theories, the organization's ability to obtain anticipated profitability from innovations is strongly influenced by its absorptive capacity (Cohen and Levinthal 1990). By enhancing knowledge transfer, absorptive capacity has been theorised to contribute to organizational innovation and, in turn, facilitate sustainable competitive advantage (Tsai, 2001). From an offshoring perspective the sources of absorptive capacity can arise from multi-sources including product, process and administrative innovation and/or the offshoring of strategic high value-added core tasks.

The realisation of the benefits from offshoring product and process innovation strategies will depend on management's ability to recognise the value of the resources used in the innovation domain that are valuable for the offshoring domain (Hargadon 2002). In addition, absorptive capability could also increase from administrative innovation, implying new control systems and new structures (Damanpour et al. 1989). Therefore, new knowledge gained from

innovation will interact with learning from existing functions and offshoring governance modes. Cohen and Levinthal (1990, p.131) state 'learning performance is the greatest when the object of learning is related to what is already known'. Consequently, we assume offshoring can profit from existing product/services and process innovation capabilities available within the organization.

Several researchers of the view that organizations are sequentially entering into new foreign markets guided by what they learnt from previous experience (e.g. Johanson and Vahlne, 1990; Chang and Rosenzweig, 2001 and Song, 2002). The previously acquired learning builds organizational capabilities, which consequently drive organization's performance improvement (Kogut and Zander, 1992; Tallman and Fladmore-Lindquist, 2002, and Augier and Teece, 2007 and Prange and Verdier, 2011). Prange and Verdier (2011) argued that the success of the internationalization process hinges on the adequate utilisation of different types of dynamic capabilities. They also introduced four different types of dynamic capabilities, which are value-adding capabilities and disruption capabilities, and threshold capabilities, and consolidation capabilities and categorised them respectively under: exploratory and exploitative capabilities. Prange and Verdier (2011) further proposed, as a recipe for achieving long-term performance, " Companies need to pursue an ambidextrous internationalization process in order to acquire these different sets of dynamic capabilities behind each process to achieve both related outcomes in a quest for long-run performance".(p.131). We complement Prange and Verdier (2011) research, by introducing the absorptive capacity concept. Organizations compete according to their capacity to learn and making use of the acquired knowledge at new foreign operations (Chang & Rosenzweig, 2001; Luo, 2002; Sapienza et al., 2006; Tallman & Fladmore-Lindquist, 2002). Thus, internationalisation success relies not only on the balance usage of existing organization's capabilities but also on the organization's absorptive capacity to frequently develop and fine-tune these capabilities to meet the ever-changing international market circumstances (Kogut & Singh, 1988; Li, 1995 and Prange and Verdier, 2011) to achieve the optimal outcomes.

Absorptive capacity can also increase from strategic offshoring to high value-added tasks. Strategic offshoring of these tasks lead to the development of complementary and strategic capabilities (Holcomb and Hitt 2007). These strategic capabilities are important for the further development of the core activities and competitive position of organizations. Organizational performance may also be influenced by the intensity with which an organization offshores its near-core, strategically relevant activities. Core activities are highly important to the long-run

success of organizations (Gilley and Rasheed 2000) and form the basis and direction for growth (Peteraf 1993). The diverse circumstances under which both core and non-core activities are offshored, involve a variety of events and ideas (Jacobides and winter 2006). This diversity facilitates the development of absorptive capacity and experiential knowledge accumulation (Barkema and Vermeulen 1998; Penrose 1959). Hitt et al. (1997) argue that the performance increases resulting from increasing internationalization are moderated by managerial experience. We similarly argue that absorptive capacity increases the organization's ability to capitalise on the gains from offshoring.

Furthermore, as highlighted by Jensen and Pedersen (2012), a deficiency in many previous studies of offshoring performance is that certain functions within the firm, such as R&D or marketing, are treated as a single activity. These functions really consist of many specific and different tasks, some of which require highly educated specialist workers while others do not. Other scholars (e.g. Gereffi et al. 2005) have expressed similar views regarding the importance of task-complexity on the ease of transferring these tasks across organizational boundaries. We expect high value-added and standardized tasks to differ in the degree of organizational learning required and, therefore, the organization's absorptive capacity to differ in importance between high and standardized tasks.

Offshoring of high value-added activities confronts organizations with important challenges related to coordination, control and innovative performance (Levy, 2005). Several studies have shown that more offshoring of high value- added activities might lead to a sustainable performance improvement (Kenney et al., 2009; Lewin et al., 2009; Maskell et al., 2007). Hence, high value added tasks if they are successfully offshored, they are more likely to add greater value, for example, by allowing the firm to access scarce global talent not available in the home country (Lewin et al, 2009) or to carry out complex tasks more efficiently through a specialist offshore provider. We, therefore, hypothesize that financial performance gains are associated with its degree of offshoring of high value-added tasks:

Hypothesis 1a: *The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.*

However, we do not expect the offshoring of standardized tasks to have the same or as great an effect, for the same reasons. Even though they are generally easier to offshore, they add less value so the performance gains from offshoring are less. Therefore, we hypothesize:

Hypothesis 1b: *The degree of offshoring of standardized tasks will not be significantly related to performance improvement.*

High value-added tasks require significant organizational learning and, therefore, the organization's absorptive capacity is critical in deriving performance benefits from offshoring of high-value-added tasks. Organizations with a high level of absorptive capacity are better able to integrate knowledge, capabilities and skills from foreign locations into domestic operations (Lane, et al., 2001). Absorptive capacity might enable an offshoring organization to effectively deal with external knowledge at foreign locations (Lewin & Peeters, 2006b). Research on the performance effects of international strategies has shown the moderating impact of absorptive capacity on an organization´s profitability and revenue growth (e.g. Subramaniam & Venktraman, 2001; Zahra & Hayton, 2008). A study by Roza, (2011) confirmed that absorptive capacity positively moderates the relationship between the outsource offshoring and firm growth.

We, therefore, hypothesize:

Hypothesis 2a: *The organizational absorptive capacity will have a positive direct effect on financial performance for organizations offshoring high value-added tasks.*

Hypothesis 3a: *The organizational absorptive capacity will significantly and positively moderate the relationship between the degree of offshoring of high value-added tasks and performance improvement.*

However, we do not expect absorptive capacity to affect the offshoring–performance improvement relationship for organisations offshoring standardized tasks. As standardized tasks require less organizational learning, absorptive capacity is a less critical factor. Therefore, we hypothesize:

Hypothesis 2b: *The organizational absorptive capacity will not have a direct effect on financial performance for organisations offshoring standardized tasks.*

Hypothesis 3b: *The organizational absorptive capacity will not significantly moderate the relationship between the degree of offshoring of standardized tasks and performance improvement.*

Figure 4.1 summarizes our conceptual model and the hypotheses showing the relationship between the degree of offshoring of high value-added tasks versus standardized tasks and

215

performance improvement and the moderating influence of offshoring absorptive capacity from an organizational learning perspective (see Figure 4.1).

Figure 4-1: Conceptual model- offshoring, absorptive capacity and performance improvement
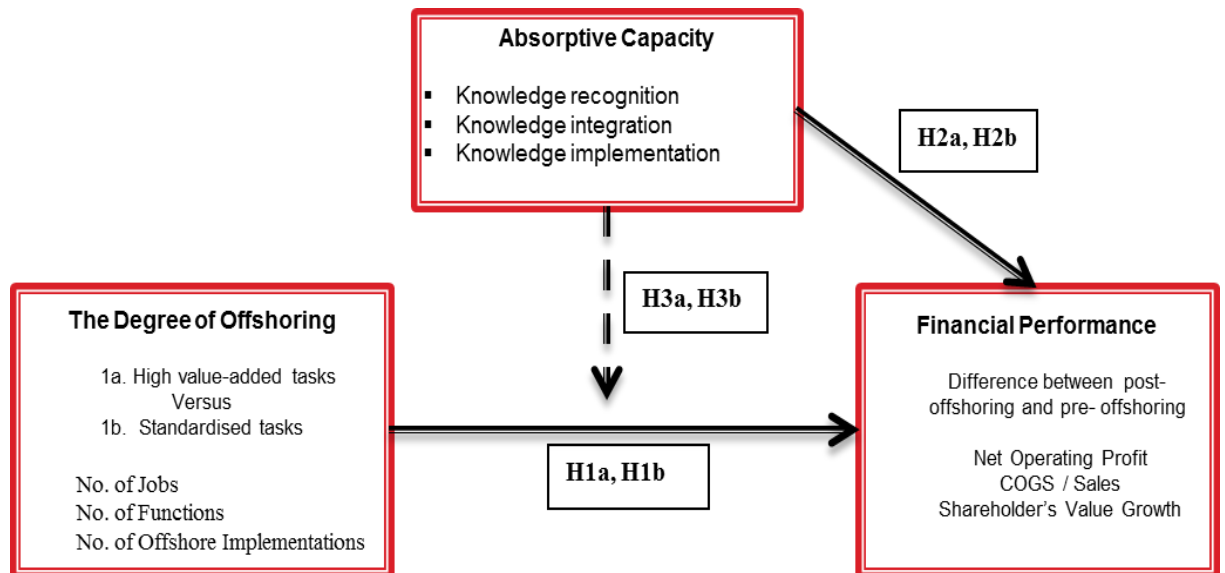
4.3 Methodology

Four different conceptual models were created and used to test the five hypotheses using Partial Least Squares Structural Equation Modelling (PLS) using WrapPLS 3.0 software (Kock, 2012).

- Model 1 examines the direct effect of the degree of offshoring of high value-added tasks on *performance improvement* (**H1a**) ;

- Model 2 examines the direct effect of the *degree of offshoring* standardized-tasks on *performance improvement* (**H1b**);

- Model 3 examines the direct and *moderating effect* of *absorptive capacity* on the relationship between the degree of offshoring of high value-added tasks and *performance improvement* **H2a** and **H3a;**

- Model 4 examines the direct and *moderating effect* of *absorptive capacity* on the relationship between *the degree of offshoring of standardized tasks* and *performance improvement* **(H2b)** *and* **(H3b).**
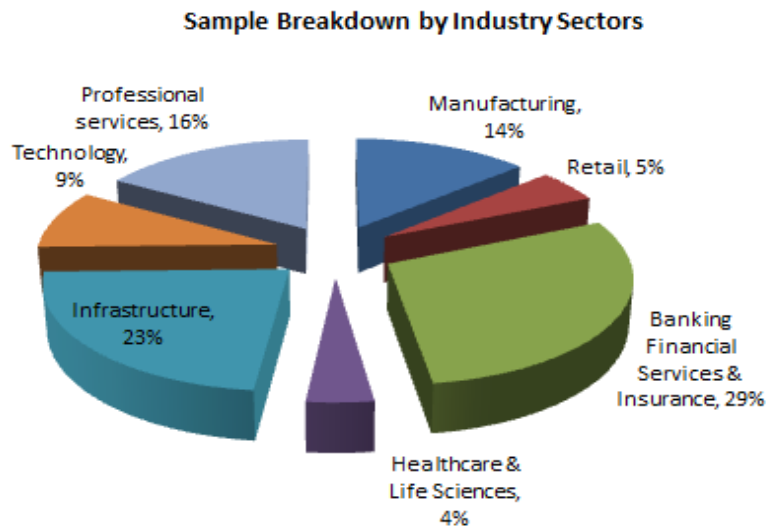
4.3.1 Sample and Data collection

This study was conducted in conjunction with the ***ORN (Offshoring Research Network).*** However, the ORN survey was further broadened and customised to include and questions specific to Australia and this research. This study used a primary source of data collected through an online survey followed by a phone interview, combined with secondary accounting and financial data obtained from Dun and Bradstreet (a global commercial database contains more than 205 million business records). The data was collected between 2010 and 2011.

The organisations that participated in the study represent small-to-medium sized Australian organisations with 0-200 full-time equivalent employees. These organisations belong to a wide range of industries, such as banking & finance, infrastructure, manufacturing, engineering and software development, retailers and wholesalers and professional services. One thousand (1,000) organisations with offshoring implementations across all identified industries were surveyed. At the end of the process, we obtained 201 completed surveys, including 77 surveys from organisations which are currently offshoring. The breakdown by industry sector of these organisations is shown in Figure 4.2.

The most three represented industries are banking, financial services and insurance (29%), infrastructure (23%) and professional services (16%).

Figure 4-2: Sample breakdown by industry sectors

Sample Breakdown by Industry Sectors

Professional services, 16%
Technology, 9%
Infrastructure, 23%
Healthcare & Life Sciences, 4%
Manufacturing, 14%
Retail, 5%
Banking Financial Services & Insurance, 29%

4.3.2 Variables and measures

4.3.2.1 Dependent variable: Financial performance

Previous studies on global sourcing examining the effect of absorptive capacity have mainly used subjective or perceptual performance improvement measures of profitability and growth (Bhalla et al. 2008) usually over a one-year period. However, attention needs to be paid to the long-term performance of offshoring (e.g. Novak & Stern, 2008) and multi-dimensional performance improvement measures (e.g. Kotabe 1992; Murray, Kotabe & Wildt 1995).

The measurement of performance over the short-term in previous studies is deficient because it ignores the fact that strategy implementation often takes many years to be introduce. What is needed is more of a dynamic orientation to measure offshoring performance. This means asking the respondents to report on the results over a period of six years. This allows the researcher to obtain a better understanding of the evolution of the indicators. A dynamic orientation provides an opportunity to gain results that are more accurate and to minimise possible weaknesses associated with the use of a single performance measure. As Aulakh and his colleagues (2000) state, the diverse measures used for foreign performance has led to inconsistent and contradictory findings in foreign activity and performance linkages. To generalise research findings, it is practical to use a multiple aspect of performance measures. Therefore, this study employed three dimensions of performance: (1) difference in net

operating income, (2) difference in cost of sales/ sales, (3) difference in shareholder's value growth rate. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

This research uses the concept of the "research window" (Smith et al. 1998) for calculating performance improvement. For each organization the offshoring implementation year was identified and was designated (Year 0). Values were tabulated for six years for each organization from Year -1 to Year 5. Further, an additional column was used to compute the change in performance given by the difference in values of Year -1 and Year 5. We computed the change in performance over six years as:

$$\Delta \textbf{Performance = (Value)j – (Value)i} \text{ , where i = Year -1 and j = Year 5}$$

Similar approaches for measuring change in performance have applied to previous studies (e.g. Srivastava et al. 2008 and, Smith et al. 1998). For operationalising the change in performance, the study measured the change in three performance measures: (1) net operating income, (2) cost of sales /sales, (3) shareholder's value growth rate. Please refer to Table 4.3 for the construction and measurements of variables.

4.3.2.2 Independent variables and measures

4.3.2.2.1 The degree of offshoring

Previous research studies in the offshoring literature do not provide information about the quantitative scope of offshoring (Jabbour, 2010; Doh et al. 2009; Srivastava et al. 2008; Jensen, Kirkegaard & Laugesen, 2006; Levy, 2005). They merely provide a yes/no measure of whether or not there is offshoring. Past offshoring studies in different contexts have stressed the importance of considering the intensity or degree of offshoring implementation to improve the accuracy of measurement (Jabbour, 2010; Doh, Bunyaratavej & Hahn 2009). In this research the independent variable is the degree of offshoring, defined as the amount of production or service that has been transferred by the organization from its parent country to a foreign destination. This research study also distinguishes between the degree of offshoring of *high value-added tasks* versus *standardized tasks*. In line with Jensen and Pedersen (2012, 2007) and Cantwell (2005), we define high value-added tasks as the more complex,

innovative and qualified tasks, which the offshoring organization may not be able to perform in their home country.

To operationalise the degree of offshoring of high value-added tasks (DEG HVA), and the degree of offshoring of standardized tasks (DEG STD), three components are used: (1) the number of jobs offshored as a percentage of total jobs, (2) the number of tasks offshored as a percentage of total tasks and (3) the number of implementations / projects as a percentage of total implementations. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other.

4.3.2.2.2 Absorptive capacity

Different measures can capture absorptive capacity at the organizational level (Zahra & Hayton, 2008; Zahra & George, 2002). Prior measures included the number of high skilled employees (i.e. researchers, executives, developers, scientists and engineers) working for an organization or represented on its top management teams and the number of patents the organization obtained as a consequence of its research and development (R& D) investments. The most popular measure of absorptive capacity is R & D spending (Cohen & Levinthal, 1990; Zahra & Hayton, 2008). However, an organization's research and development (R&D) spending does not necessarily fully address the knowledge built by offshoring strategies (Roza, 2011).

Therefore, this study measures absorptive capacity (ABS_CAP), in an offshoring context, using three construct components:

1. Recognition (i.e. ability to recognise external knowledge on the offshore destination);
2. Assimilation (i.e. ability to integrate external knowledge from the offshoring destination); and
3. Commercialisation of new information (i.e. ability to apply external knowledge developed by the offshore destination in new processes/products /services) (Cohen & Levinthal, 1990). Only a limited number of studies address the multi-dimensionality of absorptive capacity, (Jansen, Van den Bosch & Volberda, 2005; Lane et al. 2001; Lichtenthaler, 2009; Roza, 2011; Van den Bosch, Volberda & Boer, 1999). Similar to Szulanski (1996) emphasis was put on employee skills, competences and firm

220

processes. A factor analysis was conducted which showed that the measures for each construct are highly correlated with each other. For the measurement of absorptive capacity, see Table 4.1.

Because absorptive capacity is intangible and its benefits are indirect (Cohen & Levinthal, 1990), this study will mainly focus on the moderating effect of absorptive capacity on performance improvement but the direct effect is also examined to confirm the applicability of Cohen & Levinthal claim to offshoring.

4.3.2.3 Control variables

4.3.2.3.1 International experience

Ellis (1965, P.117) describes experience as a "consequence process" whereby the experience gained from one learning task may influence and improve performance on some subsequent learning task. This progressive improvement in the performance of learning tasks is a form of knowledge transfer described as "learning to learn" (Estes, 1970, p.16). In the offshoring literature, experience comprises a key determinant in an organization's decision and behaviour. Offshoring to low-cost countries has been described as a learning-by-doing process in which the offshoring of an organization goes through a sequence of stages towards sourcing for innovation (Maskell et al. 2006). Indeed, Jensen (2009) confirmed that offshoring maturity and experience intensity is necessary to put an effective absorptive capacity in place. The offshoring process acts as a catalyst of organizational strategic learning. Furthermore, experiences gained stimulate not only a change in the offshoring strategy but also stimulate the firm's internationalisation process in a significant way (Jensen, 2009). A recent study (Manning, Massini, Peeters & Lewin, 2012) demonstrated that offshoring experience affects the strategic orientation of an organization. While inexperienced organizations are oriented towards goals of reducing cost and speed of processing in sourcing decisions, experienced ones follow their internal path dependencies resulting from prior outsourcing experiences.

Organizations with greater international experience should logically offshore more (Gooris & Peeters, 2012; Jensen, 2009). In line with Gooris and Peeters (2012), in this study past experience is used as a control variable and is proposed to have a positive effect on the relationship between offshoring and performance. This study used international experience

instead of offshoring experience in order to capture an organization's collective experience (i.e. sourcing, international venturing, export, foreign direct investments, etc.). To measure international experience (INT EXP), we used the total number of years (Gooris & Peeters, 2012; Jensen, 2009) the organization has been systemically involved in international engagements to differentiate between sporadic (infrequent) experience and regular experience.

4.3.2.3.2 Offshoring governance mode

Companies might use a captive (wholly owned subsidiary) or a third party offshoring mode (third party) (Couto et al. 2006; Manning et al. 2008; UNCTAD, 2004) in order to control an offshore operation. In this research for every offshoring implementation, organizations indicated what offshoring governance modes they employed. The third party offshoring mode is coded as 0 and the captive mode is coded as 1. Organizations may offshore to an Australian, international or local offshore third party or use the build-operate-transfer option. These mode choices comprise the third party offshore outsourcing mode (non-captive). Captive offshoring might be executed by a wholly owned subsidiary or a local or international joint venture. This research uses a dummy variable=1 for captive implementations (CPT) (i.e. wholly-owned subsidiaries and joint ventures) and 0 for third party offshoring (NCPT) (local and international third party and build-operate transfer).

4.3.2.3.3 Organization age

Older organizations might be reluctant to pursue offshoring. Inertia and sunk costs in ongoing operations are more likely to inhibit these companies' ability to explore innovative ventures outside their boundaries (Zahra, 1991). However, older organizations have relationships with organizations in and outside their industries, promoting offshoring. The age of the organization has also been used to represent the effect of learning over time (Pelegrín & Bolancé, 2011). Given these potentially contradictory effects of organization age on the offshoring decision, we controlled for this variable in the analyses. Age (AGE) was measured by the natural logarithm of the number of years an organization has been in existence (Mihalache et al. 2012) using information gathered from our online survey. Logarithmic transformation was used, because it not only makes the results easy to interpret, but also the changes in the logarithm domain represent relative (percentage) changes in the original metric and makes the distribution of data closer to normality.

4.3.2.3.4 Organization size

Organization size has been proposed to positively influence the foreign commitment and the ability to face a highly uncertain host environment (e.g. Lskavyan & Sparatareanu, 2008; Ghosal & Loungani, 2000; Gooris & Peeters, 2012). Conversely, some larger organizations are bureaucratic and therefore slow to adapt to change through international activities (Block & MacMillan, 1993; Hastings, 1999).

Given these divergent scenarios, this study controlled for the effect of organization size. Offshoring is more closely aligned to labour and employees, as the common rationale for offshoring is to derive labour cost arbitrage. Therefore, this study measures the variable (SIZE) by taking the natural logarithm of the number of employees working for the respective organization in the home country (Mihalache et al. 2012). Logarithmic transformation was used, because of the ease of interpretation and the changes in the logarithm domain represent relative (percentage) changes in the original metric and make the distribution of data closer to normality. However, this measure also has potential weaknesses because it does not account for the trend towards temporary employment and employees at outsourcers for the organization. However, it is an indicator of the "resource base" under "ownership" control of the company.

4.3.2. 3.5 Industry sector

Organization choices and performance are controlled by the industry in which an organization operates (Massini, Perm-Ajchariyawong & Lewin, 2010). Due to the differences between the operation of manufacturing and services organizations, it could be expected that the importance of implementing a certain offshoring strategy will accordingly vary (Roza et al. 2011).

To control for industry sector, organizations were divided into five sectors based on the North American Industry Classification System (NAICS) and a dummy variable was created for each sector: manufacturing and industrial, wholesale and retail trade, services, banking and finance and real estate and information (e.g. Contractor et al. 2007; Chiao & Li 2009). These five sectors (see Table 4.1) comprehensively cover almost all the manufacturing and service industries in Australia. Such industry controls have been used in past outsourcing/offshoring studies such as Brynjolfsson et al. (1994) and Whitaker et al. (2005).

Table 4-1: Industry sectors as a control variable

Code	Dummy	Industry
4	MANUF	Manufacturing, engineering and industrial
12	BFSI	Banking and financial services
8	RETAIL	Whole sale/retail
16,18,19	SERVICES	Professional, technology, health
21	OTHER	Real estate and information

Due to sample size restrictions, in this study organizations in different industries were further combined into two groups: services (i.e. banking and financial services, whole sale/retail, professional technology and health and real estate and information) and manufacturing (i.e. manufacturing, engineering and industrial). This research used a dummy variable (IND_SERV) to distinguish the two groups: 1 for offshoring services, 0 for offshoring manufacturing.

4.3.3 Analysis method

4.3.1 Structural equation modelling

The data in this paper was analysed using Partial Least Squares (PLS) a type of Structural Equation Modelling (SEM), using WarpPLS software. PLS is a variance-based SEM analysis technique. In PLS the overall model consists of an inner model and an outer model. The inner model consists of the relationships between the latent variables. The outer model refers to how each set of indicators relates to the latent variable. The algorithm works by first estimating the outside model and then the inside model. Only one part of the model is involved at any one time, making it similar to running several multiple regressions. PLS provides coefficients that can be read in a similar fashion as covariance-based SEM. PLS can use either a jackknife or a bootstrap technique to generate t-values for the loadings. This technique is considered an all-purpose technique for statistical analysis, which deals well with outliers and small sample sizes (Chiquoine & Hjalmarsson, 2009; Osborne, 2008).

4.3.2 Moderation effect

Moderation is prevalent in basic and applied psychology research (Baron & Kenny, 1986; Holmbeck 1997; James & Brett, 1984; MacKinnon, Lockwood, Hoffman, West & Sheets, 2002; Shrout & Bolger, 2002). Moderation occurs when the effect of an independent variable on a dependent variable varies according to the level of a third variable, termed a *moderator variable*, which interacts with the independent variable (Baron & Kenny, 1986; Cohen, 1978; James & Brett, 1984). In this research study we are interested in looking at how differences in *absorptive capacity* (moderators) influence the strength of the relationship between *the degree of offshoring of high value-added tasks* (predictor: independent variable) and *performance improvement* (outcome: dependent variable).

4.4 Analysis and Results

4.4.1 Descriptive statistics

Multicollinearity occurs when correlations between constructs are very high. When multicollinearity is present it means that the variables which are supposed to measure different variables are actually measuring the same variable (Kline, 2009). Serious multicollinearity problems may lead to deviation in the estimation of the relationship between the dependent and independent variables (Stevens, 2002; Tebachnick & Fidell, 2001). Table 4.4 to Table 4.7 (please refer to appendices), show that all correlations among latent variables are below 0.80, signifying no serious problem of multicollinearity in our data (Gujarati, 2003). However, to be confident, we tested for multicollinearity among the independent variables by examining the variance inflation factor (VIF), the results for which are also given in Tables 4.4 to Table 4.7. In other words, the VIF expresses the degree to which collinearity among the predictors degrades the precision of linearity. This is not a significant problem if the value of VIF is below 10 (Allison, 1999; Belsley, Kuh & and Welsch, 1980; Stevens, 2002). In our case, the VIF values for all the independent variables are below five (Pedhazur, 1997), which is the conservative limit for multicollinearity. Hence, we conclude that there is no significant problem of multicollinearity among the independent variables in our study.

4.4.2 Validity

Table 4.4 to Table 4.7(please refer to Appendices) show latent variable correlations and the P values associated with those correlations. On the diagonal of the latent variable correlations table are the square- roots of the average variances extracted (AVE) for each latent variable. These results are used for the assessment of the measurement instrument's discriminate validity. A measurement instrument has good discriminate validity if the question statements (or other measures) associated with each latent variable are not confused by the respondents answering the questionnaire with the question-statements associated with other latent variables, particularly in terms of the meaning of the question-statements. The following criterion is used in this study for discriminate validity assessment: for each latent variable, the square root of the average variance extracted should be higher than any of the correlations involving that latent variable (Fornell & Larcker, 1981). That is, the values on the diagonal should be higher than any of the values above or below them, in the same

column. Tables 4.4 to 4.7 show also that the individual square roots of the AVEs are higher than any of the correlations shown below them. Therefore, these constructs exhibit discriminate validity.

Combined loadings and cross-loadings are provided in Table 4.8 to Table 4.11 with each cell referring to an indicator-latent variable. Latent variable names are listed at the top of each column, and indicator names at the beginning of each row. In this table, the loadings are from a structure matrix (i.e. unrotated), and the cross-loadings from a pattern matrix (i.e. rotated). Since loadings are from a structure matrix, and unrotated, they are always within the -1 to 1 range. This obviates the need for a normalisation procedure to avoid the presence of loadings whose absolute values are greater than 1. The expectation here is that loadings will be high; and cross-loadings will be low, which is the case in our table. P values are also provided as validation parameters of a confirmatory factor analysis.

The table of combined loadings and cross-loadings used in this study describes the convergent validity of our measurement instrument. In this respect, two criteria were used as the basis for concluding that a measurement model has acceptable convergent validity: that the P values associated with the loadings be lower than .05; and that the loadings be equal to or greater than .5 (Hair et al. 1987). Indicators for which these criteria are not satisfied were removed.

4.4.3 Reliability

Reliability concerns the degree to which the scores are free from random measurement error (Kline, 2005, p. 58). Reliability coefficients are typically considered excellent at 0.90, very good at 0.80 and adequate at 0.70 (Nunnally, 1978).The minimum reliability for most studies is 0.70. The higher there reliability coefficients are; the less variance present due to random error. In this study, two measures of reliability are provided: composite reliability and Cronbach's alpha coefficients. The latter is the measure of reliability most commonly used in studies (Nunnally, 1994).These coefficients are a measure of internal consistency of an instrument and measure the quality of the instrument. Tables 4.4 to Table 4.7 show the composite reliability and Cronbach's alpha coefficients for our sample. Both of these coefficients are above the 0.7recommended thresholds, meaning the instrument used has adequate reliability (Nunnally, 1978).

4.4.4 Model fit and the results

Three model fit indices are provided: average path coefficient (APC), average R-squared (ARS), and average variance inflation factor (VIF). For the APC and ARS, P values are also provided. When assessing the model fit with the data, the following criteria are recommended. First, it is recommended that the P values for the APC and ARS be both lower than.05 (Kock, 2011); that is, significant at the.05 level. Second, it is recommended that the AVIF be lower than five (Kock, 2011). Table 4.2 shows the model fit indices and p-values of our models.

4.4.5 Including control variables in SEM analysis

As part of the structural equation modelling (SEM) analysis, Figure 4.3 and Figure 4.4 show the models created in WarpPLS 3.0. The moderating effect of offshoring absorptive capacity on the relationship between the degree of offshoring of high value-added tasks and performance is analysed, controlling for the effects of international experience, offshoring governance mode, organization age, organization size and industry.

4.4.6 The direct effect of the degree of offshoring on performance improvement

Models 1 and 2 tested our hypotheses about the effect of high value-added and standardized tasks respectively on performance improvement. The results confirmed the significant direct effect of the degree offshoring on performance improvement. The results in table 4.2 and figure 4.3 show strong support for Hypothesis H1a (β=+0.26**, R^2=0.32), confirming that the degree of offshoring of high value-added tasks has a significant positive effect on performance improvement, regardless of control variables. Results in table 4.2 and figure 4.4 contradicts hypothesis H1b and showed a positive significant direct effect of the degree offshoring of standardized tasks on performance improvement (β=+0.22**, R^2=0.28).

Figure 4-3: Model 1- offshoring of high value-added tasks and performance improvement
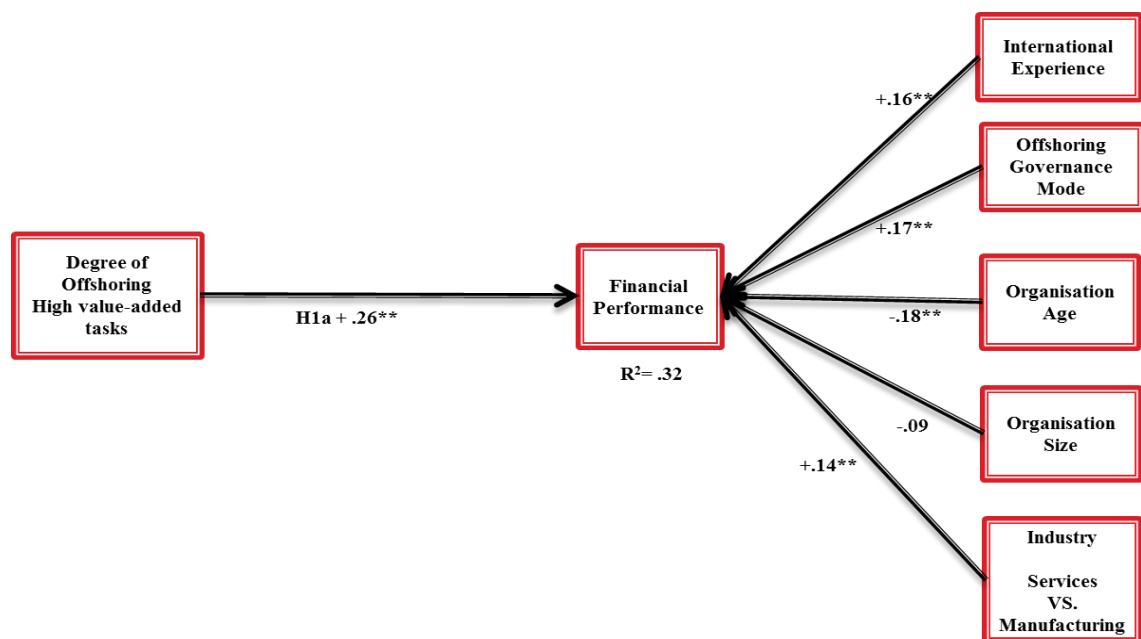

Figure 4-4: Model 2- offshoring of standardized tasks and performance improvement
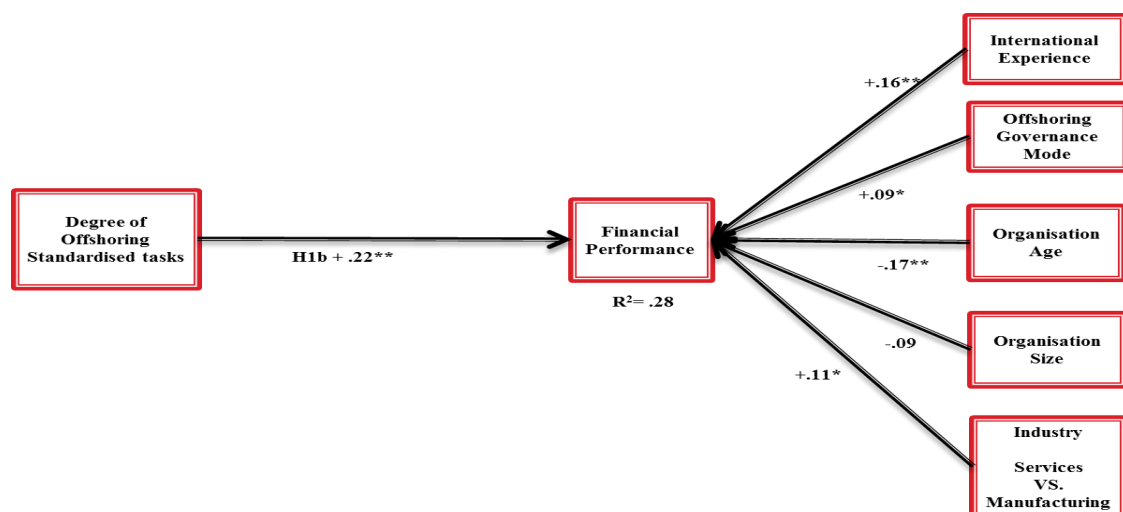
Figure 4-5: Model 3- offshoring of high value-added tasks, absorptive capacity and performance improvement
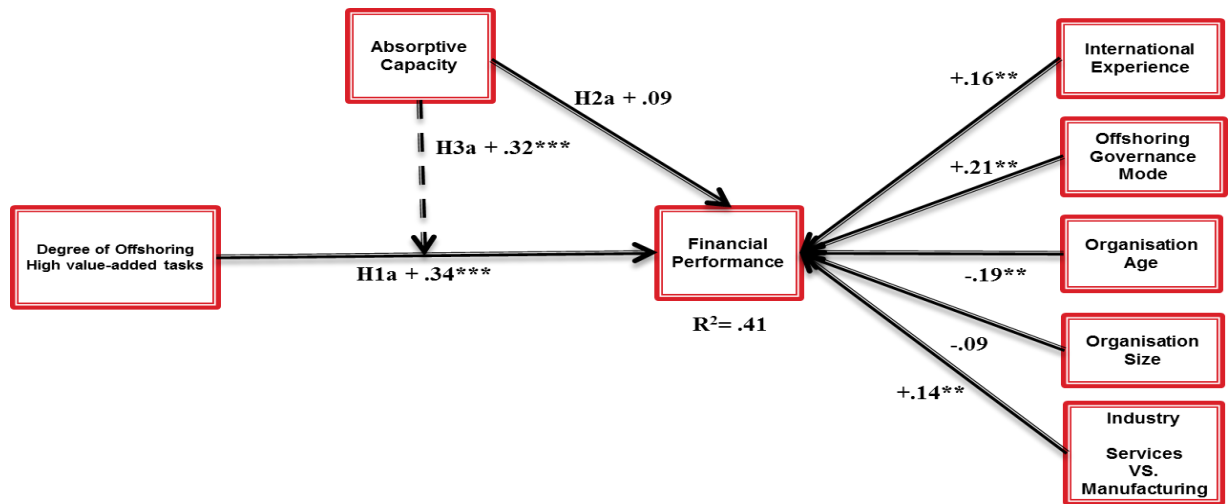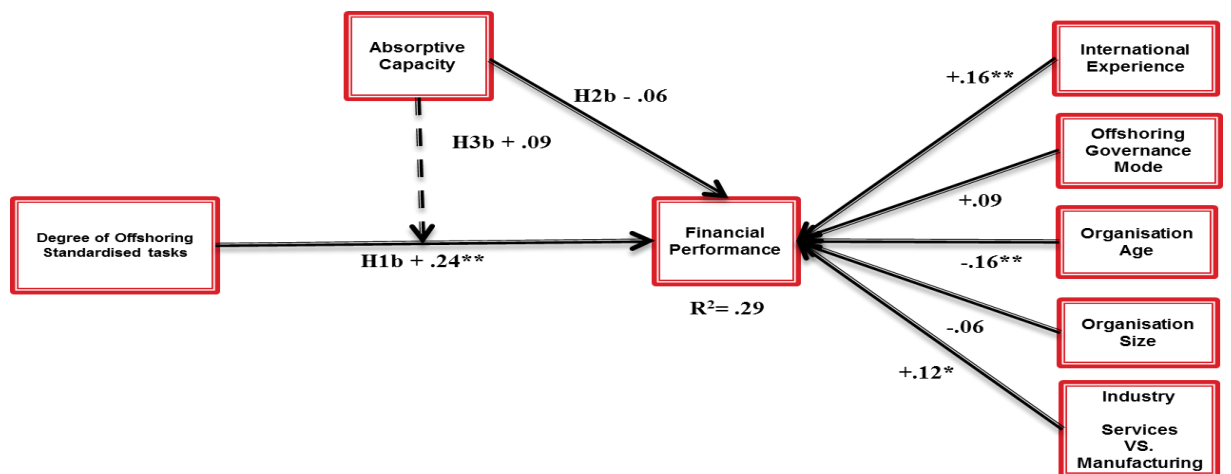

Figure 4-6: Model 4- offshoring of standardized tasks, absorptive capacity and performance improvement

4.4.7 The direct effect of absorptive capacity

The results in table 4.2 and figure 4.5 show no support for hypothesis H2a (β=+0.09, R^2=0.41). Hence, organizational absorptive capacity has no positive direct effect on performance improvement for organizations offshoring high value added tasks. However, the results in table 4.2 and figure 4.6 show support for H2b (β=-0.06, R^2=0.29). That is, organizational absorptive capacity has no significant direct effect on performance improvement for organizations offshoring standardized tasks.

4.4.8 The moderating effect of absorptive capacity

Model 3 and model 4 tested our hypotheses about the moderating effect of absorptive capacity on high value-added and standardized tasks respectively. The results show a significant positive moderating effect of absorptive capacity on the relationship between the degree of offshoring of high value-added tasks and performance improvement H3a (β=+0.32***, R^2=0.41) and no effect on the relationship between the degree of offshoring of standardized tasks and performance improvement as hypothesized H3b (β=+0.09, R^2=0.29).

In Model 3, after introducing absorptive capacity as a moderator, the path coefficient β between the degree of offshoring of high value-added tasks and performance improvement increased by 0.08 (0.34-0.26) and the **R^2** value increased from 0.32 to 0.41. This is an indicator of the size of positive effect of the moderator (absorptive capacity) on the strength of the relationship between the degree of offshoring of high value-added tasks and performance improvement. However, the relationship between the degree of offshoring of high value-added tasks and performance was significant before introducing absorptive capacity. Therefore, we can conclude that use of absorptive capacity has a partial positive moderating effect.

4.4.9 The effect of control variables

This study controlled for the effects of international experience, offshoring governance mode (i.e. captive versus third party), organization age (i.e. number of years in existence), organization size (natural logarithm of number employees) and industry (i.e. services versus manufacturing). The study results showed that international experience is positively significant in both model 1 and model 3 (β=+0.16**). The offshoring captive governance mode is positively significant in model 1 (β=+0.21**) and not significant in model 2 (β=+0.09*). Organization age is negatively significant in both model 1 (β=-0.19**) and model 3 (β=-0.16**). Organization size is not significant in both model 1 (β=-0.09) and model 3 (β=-0.06). Finally, industry (service versus manufacturing) is positively significant in model 1 (β=+0.14**) and not significant in model 2 (β=+0.12*). Thus, we can conclude that absorptive capacity has a stronger positive moderating effect over the relationship between the degree of offshoring of high value-added tasks and performance improvement for young Australian organizations in the service industry with high international experience using captive governance mode regardless of their size.

Table 4-2: Summary of PLS results

Hypothesized Path	OrganizationPerformance improvement	Support for Hypothesis
Hypothesis 1a: *The degree of offshoring of high value-added tasks positively affects performance improvement.* **Higher degree of offshoring HVA → Higher performance improvement**	+ .26**	H1a (+)supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not positively affect performance improvement.* **Higher degree of offshoring STD ≠ Higher performance improvement**	+ .22**	H1b (-) not supported
Hypothesis 2a: *Organizational absorptive capacity will have a positive direct effect on performance improvement for organizations offshoring high value-added tasks.* **Absorptive capacity → Higher performance improvement**	+.09	H2a (+) not supported
Hypothesis 3a: *Absorptive capacity positively moderates the relationship between the degree of offshoring high value-added (HVA) tasks and performance improvement.* **Absorptive capacity * Degree of offshoring HVA → Higher performance improvement**	+ .32***	H3a (+) supported
Hypothesis 2b: *Organizational absorptive capacity will not have a direct effect on performance improvement for organizations offshoring standardized tasks.* **Absorptive capacity ≠ Higher performance improvement**	-.06	H2b (-) supported
Hypothesis 3b: *Absorptive capacity will not moderate the relationship between the degree of offshoring of standardized (STD) tasks and performance improvement.* **Absorptive capacity * Degree of offshoring STD ≠ Higher performance**	+ . 09	H3b (-) supported
Model 1 (Degree of offshoring HVA –performance) **R^2**	0.32	
Model 2 (Degree of offshoring STD –performance) **R2**	0.28	
Model 3 (Degree of offshoring HVA-Absorptive capacity – Performance) **R^2**	0.41	
Model 4 (Degree of offshoring STD-Absorptive capacity – Performance) **R2**	0.29	
Model fit indices and P values: **Model 1** APC ARS AVIF	 0.19 0.27 1.74	 P=<0.001 P= 0.007 Good if < 5
Model 2 APC ARS AVIF	 0.17 0.32 1.56	 P=<0.001 P= 0.015 Good if < 5
Model 3 APC ARS AVIF	 0.16 0.51 2.40	 P=<0.001 P=<0.001 Good if < 5
Model 4 APC ARS AVIF	 0.14 0.51 2.06	 P=<0.001 P= <0.001 Good if < 5

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01). Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

4.4.10 The time effect of the targeted performance improvement

Cohen and Levinthal (1990) argued that the organization's ability to obtain anticipated profitability from innovations is strongly influenced by its absorptive capacity. The development of an organization's absorptive capacity has a strong path dependency on prior investment in research and development and existing knowledge base of an organization (Hutzschenreuter, 2007). Organizations learn from previous offshoring engagements how to handle the new challenges and manage to successfully cross borders (Barkema et al. 1997; Terpstra and Chow-Ming 1988). Offshoring organizations can lean from previous offshoring activities and subsequently benefit of it to "lay the foundations for an efficient transition phase" (Hutzschenreuter, 2011, p.71).   In this paper, we argue that the time frame required to achieve an organization's offshoring targets is influenced by the organization's absorptive capacity and the nature of the tasks offshored.

The time required to achieve the targeted performance improvement in case of different absorptive capacity level and different nature of tasks, was explored through repeating our previous analysis of longer-term performance improvement (i.e. five years after the offshoring announcement year) using shorter-term change in performance (i.e. 1 year and 2 years after the offshoring announcement year). The change in performance was calculated as:

ΔPerformance = (Value)j – (Value)i , where i = pre-offshoring Year -1 and j = post-offshoring Year +1 and Year +3

Table 4.12 (refer to appendices) shows the findings one year after the offshoring announcement. The findings showed support only for our hypotheses H2b (β= -.03, R^2=0.26) H3b (β=+.04, R^2=0.26) which respectively confirms no direct and moderating effect of organizational absorptive capacity on performance improvement for organizations offshoring standardized tasks. The test of the hypotheses showed no support for H1a, H2a and H3a which relate respectively to the direct effect of the degree of offshoring and the direct and moderating effect of absorptive capacity for organizations offshoring high value-added tasks. However, the hypotheses H1a and H3a were supported by the previous test at five years after the offshoring announcement. In line with our previous findings at five years, the findings contradicted our hypothesis H1b (β=+.16**, R^2=0.27) and showed a positive direct effect of the degree of offshoring on performance improvement for organization offshoring standardized tasks.

The results in table 4.13 (refer to appendices) show the findings 3 year after the offshoring announcement, which were similar to our previous findings at five years after the offshoring announcement. The findings showed support for hypotheses H1a (β=+.19**, R^2=0.28) and no support for H1b (β=+.17**, R^2=0.23) which confirms respectively the direct positive effect of offshoring of high value-added tasks and standardized tasks on performance improvement. The findings also showed support for H3a (β= +.28**, R^2=0.36) which confirms the positive moderating effect of absorptive capacity on performance improvement for organization offshoring high value-added tasks. Finally, the test of the hypothesis: H2a, which, hypothesize direct positive effect of absorptive capacity on performance improvement, showed no support at one year, three years and five years after the offshoring announcement.

4.5 Discussion and conclusion

Offshoring as a "sequential learning by doing processes" (Lewin & Peeters, 2006b, p.236) was hypothesised to provide rapid access to knowledge of the foreign domestic market and foreign expertise. Offshore knowledge allows replicating operations at offshore locations, which positively affects additional firm growth and enhance performance improvement (Roza, 2011). Our results confirm the mutual effect of offshoring and organizational learning and, more generally, the mutual effect of global strategy and organizational learning. Offshoring enables firms not only to exploit resources in foreign locations but also to gain knowledge about foreign markets, customers and suppliers. At the same time, organizations, which have a high absorptive capacity and are able to learn quickly are better able to capitalise on the benefits of offshoring and so undertake more offshoring successfully. This argument is consistent with previous findings on the relationship between internationalization strategies and organizational learning.

However, by examining the nature of the tasks offshored, our results also add a further dimension. The empirical investigations five years after the offshoring announcement showed that the effects of absorptive capacity are only significant in the case of offshoring of high-valued tasks, which are complex and non-standardized. In the case of low value-added, standardized tasks, which are relatively easy to learn, absorptive capacity is not so critical. This suggests that the effects of organizational learning depend on the nature of the task involved and are most critical in complex tasks where a significant effort is required in order to learn. In those cases, the absorptive capacity of the organization may limit what benefits

they derive from offshoring. Therefore, the benefit that firms derive from offshoring may depend on how much absorptive capacity they have to start with and how much they are able to learn from the offshoring experience. This may partially explain why previous studies, which have not examined this factor, have failed to find consistent gains from offshoring among different firms.

In the offshoring context, prior international experience is deemed to be an important driver for the adoption of offshoring (Carmel & Agarwal, 2002; Dibbern et al. 2008; Jensen, 2009; Manning et al. 2008; Maskell et al. 2007) but empirical results have been contradictory. The results from this study empirically confirmed the positive control effect of international experience. International experience has been argued as a key external source of knowledge that influences absorptive capacity (Cohen & Levinthal, 1990; Van den Bosch, Van Wijk & Volberda, 2003; Zahra & George 2001). In line with these scholars' suggestions, the findings of this study showed that internationally experienced Australian organizations have a higher absorptive capacity level, and were able achieve a higher performance, than inexperienced organizations.

Organizations that adopt an offshoring strategy have a choice between either captive (i.e. wholly owned subsidiary) and external third party governance mode approaches (Gospel and Sako, 2010; Jensen, 2009). The success of an offshoring implementation might be affected by the general offshoring capabilities of an organization, sourcing strategies (e.g. Holcomb & Hitt 2007, Kedia & Mukherjee 2009, McIvor 2009, Manning, Massini, Peeters & Lewing, 2012; Parmigiani & Mitchell 2009, Weigelt, 2009) and its governance mode (Hutzschenreuter et al.2011; Roza et al. 2011). To have full control over their offshoring subsidiaries, offshoring organizations generally use the captive governance mode (Boateng & Glaister 2002; Chan 1995; Hutzschenreuter et al., 2011).

This study, in line with Massis et al. (2010) and Nieto and Rodríguez (2011) confirmed that captive governance mode exerts a greater effect than the third party governance mode on the relation between the degree of offshoring of high value-added tasks and performance.

Analysis showed a negative control effect for organization age on the relationship between absorptive capacity, the degree of offshoring of high value-added tasks and performance improvement. In this study, younger Australian organizations are more active and innovative than older organizations. This interesting finding can be justified on the basis that older organizations might be reluctant to pursue captive offshoring. Inertia and sunk costs in

ongoing operations might inhibit these companies' ability to explore innovative international operations outside their boundaries (Zahra & Hayton, 2008; Zahra, 1991). In addition, older organizations tend to be more inert (Hannan & Freeman, 1984), leading to lower levels of innovativeness than younger organizations.

Organization size is recognised to be an important (control) variable in international research (Farrell, 2005; Lewin & Peeters, 2006a; Lewin & Peeters, 2006b). Interestingly, in this study, the moderating effect of absorptive capacity is not effected by organization size. In this research, both small and medium-sized organizations appear not to be constrained by their organization sizes, but to be innovative and have a high level of absorptive capacity. Absorptive capacity and innovation might be more effected by, for example by the size of the operation, industry and host country (Roza et al. 2011; Brouthers & Hennart, 2007). In line with the findings of this study, a recent study by Manning, Massini, Peeters and Lewin (2012) also found that organization size has a marginally negative significant effect as a control variable. Their study suggested that in the early stage of offshoring, large and more experienced organizations are less likely to externalise their processes due to scale and scope economies that make captive operations comparatively more cost effective for them.

The review of the recent offshoring literature shows that there is little agreement as to what the effects of offshoring are at the industry sector level (Jensen, 2009; Doh, 2005). Industry is recognised as one of the factors that play an important role in moderating the relationship between absorptive capacity and organizational innovative performance (Lewin, Massini & Peeters, 2009; Massini, 2010). This study empirically confirmed the positive significant control effect of the service industry (versus manufacturing).

Finally, when exploring the time effect, the empirical investigations one year after the offshoring announcement showed no direct or moderating effects of absorptive capacity on performance improvement. However, three years after the offshoring announcement the effect of absorptive capacity becomes only significant in the case of offshoring of high-valued tasks and remained so after five years of the offshoring announcement year. In the case of low value-added, standardized tasks, which are relatively easier to learn, absorptive capacity was not so critical throughout the whole period of the analysis. An explanation might be that with more time than one year, organizations are able to develop organizational capabilities for managing the offshoring of more complex and value-added activities, which lay the foundation of an efficient offshoring phase. Offshoring of such activities can allow offshoring

organization to indirectly learn from others, which might serve as an essential external source of expertise. With this appropriate know-how, an organization can achieve their performance improvement targets faster (Hutzschenreuter et al., 2011). Finally, organizations that do not have and/or develop the appropriate capabilities and experience "will suffer inappropriate processes as well as routines" (Hutzschenreuter et al., 2011, p.71) and need more time to reach the expected performance level.

4.6 Implications and contribution

Our findings have implications for both the theory and practice of offshoring and global strategy in general. They strongly suggest that offshoring, like internationalization in general, is not simply a matter of economic arbitrage of resources among different locations but needs to be viewed as an opportunity for organizational learning and capability development. Our data did not allow us to explore the nature of the learning that takes place or the capabilities that firms developed in offshoring but these are clearly questions that merit further research.

4.7 Limitations and directions for future research

Although we believe we have made some important findings about the relationships between organizational learning, offshoring and performance in our research, we should also note some limitations in our study. First, this study was cross-sectional and with a relatively small sample size and although we examined performance pre-and post-offshoring , they are still only a small snapshot of events at a single point in time, while the learning and the performance gains from offshoring are dynamic processes. A cross-sectional study may not capture all the implications of a dynamic system, which could change over time. Therefore, longitudinal time-series studies of offshoring and learning and performance are called for in the next stage of research. Secondly, our sample consisted of relatively small to medium sized Australian-based organizations so may not be readily generalizable to large firms or firms from other countries. Future studies could re-examine our hypotheses with a sample of larger firms and firms in other countries. Prange and Verdier (2011 introduced the concept of an "ambidextrous internationalization process" and its impact on organizations' ability to achieve long-term performance. It will be interesting to test the applicability of this concept to the offshoring process.

APPENDICES

Table 4-3: Variables construction and measurement

Variables	Construction
Dependent	
Financial performance	
- **Difference in Net Operating Income (Year + 5 – Year-1)**	Net Operating Income =Gross Income – Operating Expenses – Depreciation (Year +5 - Year-1).
- **Difference in Cost of goods sold as a percentage of Sales (Year +5- Year-1)**	% Difference in cost of goods sold/ Sales (Year +5 - Year-1).
- **Difference in Shareholder's Value Growth Rate (Year +5-Year-1)**	% Difference in Shareholder's Value Growth Rate (Year +5 - Year -1).
Independent	
Degree of offshoring **High value-added tasks versus standardized tasks**	Number of jobs offshored as percentage of total jobs Number of tasks offshored as percentage of total tasks Number of offshoring implementations as percentage of total implementations
Absorptive capacity	
- **External knowledge recognition**	1 to 7 (strongly disagree to strongly agree) mean score attributed to "recognising new knowledge", "assessing new knowledge", "employees involvement in the transfer of knowledge" and "implementing systems and procedures to share knowledge" between home country and offshore destination.
- **External knowledge assimilation**	1 to 7 (strongly disagree to strongly agree) mean score attributed to "ability to adopt new knowledge", "feasibility to adopting new knowledge is rightly assessed", "employee competence to absorb new knowledge" and "able to profit from developments through offshoring" from offshore destination.
- **External knowledge Commercialisation**	1 to 7 (strongly disagree to strongly agree) mean score attributed to "recognising the possibilities for commercialisation of new knowledge", "feasibility of commercialisation of new knowledge is rightly assessed" and "employees are able to implement the new knowledge in new processes/product/services" and "ability to profit from new products/services developed by the offshoring destinations".
Controls	
International experience	Number of years of previous international experience
Organization size	The natural logarithm of number of employees in a home country.
Organization age	The natural logarithm of number of years an organization has been in existence
Offshoring governance mode	A dummy variable to code the different offshoring governance mode, 1 for captive mode, and 0 for third party governance mode
Industry sector	A dummy variable to code the different industries, 1 for offshoring services, and 0 for offshoring manufacturing

Absorptive capacity adapted from Cohen and Levinthal (1990) and Roza (2011), adjusted for offshoring context.

Correlations among latent variables and P values

Table 4-4: Correlations Model 1

H1a: The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement.

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOVMOD
DEG HVA	**0.96**	0.17**	0.001	0.39***	0.10	0.50***	0.41***
PERF	0.17**	**0.84**	-0.10	0.02	0.27***	0.07	0.03
SIZE	0.001	-0.10	**1.00**	-0.06	-0.03	0.03	0.05
AGE	0.39***	0.02	-0.06	**1.00**	0.05	0.52***	0.34***
INDUST	0.10	0.27***	-0.03	0.05	**1.00**	0.10	0.33***
INT EXP	0.50***	0.07	0.03	0.52***	0.10	**1.00**	0.39***
GOVMOD	0.41***	0.03	0.05	0.34***	0.33***	0.39***	**1.00**
CRC	0.97	0.88	1.00	1.00	1.00	1.00	1.00
Cronbach	0.95	0.79	1.00	1.00	1.00	1.00	1.00
VIF	2.58	1.19	1.03	1.70	1.31	1.89	2.52

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.
CRC: composite reliability coefficient; Cronbach: Cronbach's alpha coefficient; VIF: Variance inflation factor. DEG OFF
HVA: Degree of offshoring high value-added tasks; PERF: performance improvement; INT_EXP: International experience;
INDUST: Industry; SIZE: organization size, AGE: organization age, GOVMOD: offshoring governance mode

Table 4-5: Correlations Model 2

H1b: The degree of offshoring of standardized tasks will not be significantly related to performance improvement.

	DEG STD	PERF	SIZE	AGE	INDUST	INT EXP	GOVMOD
DEG STD	**0.93**	0.13*	0.001	0.28***	0.1	0.48***	0.21**
PERF	0.13*	**0.84**	-0.1	0.02	0.21***	0.07	0.03
SIZE	0.001	-0.1	**1**	-0.06	-0.03	0.03	0.05
AGE	0.28***	0.02	-0.06	**1**	0.05	0.48***	0.31***
INDUST	0.1	0.21***	-0.03	0.05	**1**	0.1	0.33***
INT EXP	0.48***	0.07	0.03	0.48***	0.1	**1**	0.39***
GOVMOD	0.21**	0.03	0.05	0.31***	0.33***	0.39***	**1**
CRC	0.91	0.78	1	1	1	1	1
Cronbach	0.82	0.79	1	1	1	1	1
VIF	1.58	1.82	1.03	1.7	1.2	1.96	1.64

Note: Square roots of average variances extracted (AVE's) shown on diagonal.
*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level.
CRC: composite reliability coefficient; Cronbach: Cronbach's alpha coefficient; VIF: Variance inflation factor. DEG OFF
STD: Degree of offshoring Standardized tasks; PERF: performance improvement; INT_EXP: International experience;
INDUST: Industry; SIZE: organization size, AGE: organization age.

Table 4-6: Correlations Model 3

Hypothesis 2a: The organizational absorptive capacity will have a positive direct effect on performance improvement for organizations offshoring high value-added tasks.

H3a: The organizational absorptive capacity will significantly and positively moderate the relationship between the degree of offshoring of high value-added tasks and performance improvement.

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	ABS_ CAP	ABS_CAP* DEG OFF
DEG HVA	**0.96**	0.17	0.00	0.39	0.10	0.50	0.41	-0.04	-0.12
PERF	0.17	**0.84**	-0.10	0.02	0.27	0.07	0.03	-0.03	-0.06
SIZE	0.00	-0.10	**1.00**	-0.06	-0.03	0.03	0.05	-0.02	0.04
AGE	0.39	0.02	-0.06	**1.00**	0.05	0.52	0.34	0.06	0.02
INDUST	0.10	0.27	-0.03	0.05	**1.00**	0.10	0.33	-0.05	-0.08
INT EXP	0.50	0.07	0.03	0.52	0.10	**1.00**	0.39	-0.08	-0.18
GOVMOD	0.41	0.03	0.05	0.34	0.33	0.39	**1.00**	-0.10	-0.10
ABS_CAP	-0.04	-0.03	-0.02	0.06	-0.05	-0.08	-0.10	**0.69**	0.49
ABS_CAP* DEG OFF	-0.12	-0.06	0.04	0.02	-0.08	-0.18	-0.10	0.49	**0.71**
CRC	0.97	0.88	1.00	1.00	1.00	1.00	1.00	0.83	0.90
Cronbach	0.95	0.79	1.00	1.00	1.00	1.00	1.00	0.75	0.87
VIF	2.67	1.19	1.05	1.75	1.33	2.00	2.61	4.44	4.60

Note: Square roots of average variances extracted (AVE's) shown on diagonal. CRC: composite reliability coefficient; *Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. ABS_CAP: absorptive capacity.

Table 4-7: Correlations Model 4

Hypothesis 2b: The organizational absorptive capacity will not have a direct effect on performance improvement for organizations offshoring standardized tasks.

H3b: The organizational absorptive capacity will not significantly moderate the relationship between the degree of offshoring of standardized tasks and performance improvement.

	DEG STD	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	ABS_ CAP	ABS_CAP* DEG OFF
DEG STD	**0.93**	0.13*	0	0.28***	0.1	0.21**	**0.93**	-0.13*	-0.12
PERF	0.13*	**0.84**	-0.1	0.02	0.21***	0.03	0.13*	**0.84**	-0.06
SIZE	0	-0.1	**1**	-0.06	-0.03	0.05	0	-0.1	0.04
AGE	0.28***	0.02	-0.06	**1**	0.05	0.31***	0.28***	0.02	0.02
INDUST	0.1	0.21***	-0.03	0.05	**1**	0.33***	0.1	0.21***	-0.08
INT EXP	0.21**	0.03	0.05	0.31***	0.33***	**1**	0.21**	0.03	-0.18
GOVMOD	**0.93**	0.13*	0	0.28***	0.1	0.21**	**0.93**	0.13*	-0.1
ABS_CAP	-0.13*	-0.03	-0.02	0.06	-0.05	-0.08	-0.1	**0.69**	0.49
ABS_CAP* DEG OFF	-0.12	-0.06	0.04	0.02	-0.08	-0.18	-0.1	0.49	**0.71**
CRC	0.94	0.87	1	1	1	1	1	0.83	0.9
Cronbach	0.95	0.89	1	1	1	1	1	0.75	0.87
VIF	1.67	1.19	1.05	1.75	1.33	2	2.51	3.44	3.6

Note: Square roots of average variances extracted (AVE's) shown on diagonal. CRC: composite reliability coefficient;

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. ABS_CAP: absorptive capacity.

Combined loadings and cross-loadings

Table 4-8: Loadings Model 1

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOVMOD	P value
NO_TASKS	**0.95**	-0.03	0.04	0.02	0.01	0.02	-0.04	<0.001
NO_JOB	**0.96**	0.10	-0.01	0.00	-0.05	-0.04	0.06	<0.001
NO_IIMP	**0.96**	-0.07	-0.03	-0.01	0.04	0.02	-0.01	<0.001
D_NOI	0.10	**0.87**	-0.05	0.00	-0.05	-0.04	0.01	<0.001
D_SG	-0.08	**0.84**	0.03	0.07	-0.09	-0.09	0.24	<0.001
D_SHV	-0.02	**0.81**	0.03	-0.07	0.14	0.14	-0.25	<0.001
LNEMPL	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	<0.001
AGE	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	<0.001
INT_EXP	0.00	0.00	0.00	0.00	0.00	**1.00**	0.00	<0.001
CAPT_MOD	0.00	0.00	0.00	0.00	0.00	0.00	**1.00**	<0.001

Note: P values < 0.05 are desirable for reflective indicators.

*Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NO_TASKS: number of tasks, NO_JOB: number of jobs, NO_IMPL: number of implementations, D_NOI: difference in net operating income, D_COGS/S: difference in Cost of goods sold/sales, D_SHV: difference in shareholder's value growth rate. IND_SERV: service industry, LNEMPL: natural logarithm of number of employees.

Table 4-9: Loadings Model 2

	DEG STD	PERF	AGE	SIZE	INDUST	INTEXP	GOVMOD	P value
NO_JOB	**0.93**	0.12	0.04	0.03	-0.05	-0.06	0.39	<0.001
NO_IIMP	**0.94**	0.02	0.03	0.03	0	-0.04	0.26	<0.001
NO_TASKS	**0.79**	-0.16	-0.09	-0.06	0.05	0.11	-0.38	<0.001
D_NOI	0.49	**0.87**	0.09	-0.02	0.03	-0.13	0.14	<0.001
D_SG	-0.49	**0.84**	0.09	0.02	-0.15	-0.18	0.12	<0.001
D_SHV	-0.13	**0.81**	-0.19	0	0.13	0.32	-0.27	<0.001
AGE	0	0	**1**	0	0	0	0	<0.001
LNEMPL	0	0	0	**1**	0	0	0	<0.001
IND_SERV	0	0	0	0	**1**	0	0	<0.001
INT_EXP	0	0	0	0	0	**1**	0	<0.001
CAPT_MOD	0	0	0	0	0	0	**1**	<0.001

Note: P values < 0.05 are desirable for reflective indicators. *Significant at the 10% level; **significant at the 5% level; ***significant at the 1% level. NO_TASKS: number of tasks, NO_JOB: number of jobs, NO_IMPL: number of implementations, D_NOI: difference in net operating income, D_SG: difference in cost of goods sold/sales, D_SHV: difference in shareholder's value growth rate. IND_SERV: service industry, LNEMPL: natural logarithm of number of employees.

Table 4-10: Loadings Model 3

	DEG HVA	PERF	SIZE	AGE	INDUST	INT EXP	GOV MOD	ABS_ CAP	ABS_CAP* DEG OFF	P value
NO_TASKS	**0.95**	-0.04	0.05	0.03	0.03	0.02	-0.10	-0.06	0.03	<0.001
NO_JOB	**0.96**	0.10	-0.01	-0.02	-0.06	-0.04	0.08	0.12	-0.08	<0.001
NO_IMPL	**0.96**	-0.07	-0.04	-0.02	0.03	0.02	0.02	-0.06	0.05	<0.001
D_NOI	0.12	**0.87**	-0.05	0.00	-0.03	-0.04	-0.03	-0.06	0.03	<0.001
D_SG	-0.05	**0.84**	0.02	0.08	-0.08	-0.09	0.20	-0.07	0.08	<0.001
D_SHV	-0.07	**0.81**	0.03	-0.08	0.11	0.13	-0.18	0.14	-0.11	<0.001
LNEMPL	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	0.00	0.00	<0.001
AGE	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	0.00	<0.001
IND_SERV	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	0.00	<0.001
INT_EXP	0.00	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	0.00	<0.001
CPT_MO	0.00	0.00	0.00	0.00	0.00	0.00	**1.00**	0.00	0.00	<0.001
RECOG	0.16	0.11	-0.13	0.22	-0.13	-0.05	-0.17	**0.74**	0.45	0.00
ASSIM	0.20	-0.14	0.26	-0.01	0.38	0.03	-0.46	**0.68**	-0.43	0.03
COMMER	-0.32	-0.01	-0.07	-0.21	-0.17	0.02	0.53	**0.74**	-0.15	0.04
RECOG* NO_TASKS	0.13	0.08	-0.13	0.22	-0.16	-0.05	-0.17	-0.41	**0.79**	0.02
RECOG* NO_JOB	0.12	0.05	-0.08	0.10	-0.10	0.05	-0.18	-0.38	**0.80**	0.02
RECOG* NO_IMPL	0.03	0.07	-0.06	0.15	-0.12	0.05	-0.11	-0.35	**0.82**	0.03
ASSIM* NO_TASKS	0.36	-0.10	0.27	0.04	0.45	0.01	-0.30	0.42	**0.53**	0.02
ASSIM* NO_JOB	0.32	-0.10	0.25	0.05	0.44	0.04	-0.39	0.55	**0.51**	0.01
ASSIM* NO_IMPL	0.22	-0.13	0.30	0.01	0.46	0.08	-0.34	0.42	**0.52**	0.01
COMMER* NO_TASKS	-0.30	0.01	-0.11	-0.15	-0.18	-0.01	0.46	-0.18	**0.81**	0.04
COMMER* NO_JOB	-0.23	-0.05	-0.07	-0.16	-0.09	-0.10	0.53	0.00	**0.75**	0.03
COMMER* NO_IMPL	-0.37	0.06	-0.08	-0.25	-0.25	-0.03	0.37	0.45	**0.74**	0.04

Note: P values < 0.05 are desirable for reflective indicators. ABS_CAP: absorptive capacity, RECOG: recognition, ASSIM, assimilation, COMMER: commercialising.

Table 4-11: Loadings Model 4

	DEGSTD	PERF	AGE	SIZE	INDUST	INTEXP	GOVMOD	ABSCPT	ABSCPT*DEG	P value
NO_JOB	**0.93**	0.12	0.04	0.03	-0.05	-0.06	0.39	0.14	-0.12	<0.001
NO_IIMP	**0.94**	0.02	0.03	0.03	0	-0.04	0.26	0.39	-0.43	<0.001
NO_TASKS	**0.79**	-0.16	-0.09	-0.06	0.05	0.11	-0.38	-0.42	0.45	<0.001
D_NOI	0.49	**0.87**	0.09	-0.02	0.03	-0.13	0.14	-0.22	0.19	<0.001
D_SG	-0.49	**0.84**	0.09	0.02	-0.15	-0.18	0.12	0.29	-0.3	<0.001
D_SHV	-0.13	**0.81**	-0.19	0	0.13	0.32	-0.27	-0.07	0.11	<0.001
AGE	0	0	**1**	0	0	0	0	0	0	<0.001
LNEMPL	0	0	0	**1**	0	0	0	0	0	<0.001
IND_BFS	0	0	0	0	**1**	0	0	0	0	<0.001
INT_EXP	0	0	0	0	0	**1**	0	0	0	<0.001
CAPT_MO	0	0	0	0	0	0	**1**	0	0	<0.001
RECOG	-0.57	0.19	0.35	-0.07	-0.23	-0.4	-0.26	**0.74**	0.4	0
ASSIM	0.39	-0.55	-0.08	-0.03	0.31	0.52	0.11	**0.68**	0.2	0.1
COMMER	-0.3	0.24	-0.28	0.09	-0.32	0	0.18	**0.64**	-0.31	0.03
RECOG*Job	-0.35	0.12	0.27	-0.04	-0.2	-0.42	-0.39	-0.47	0.78	0.02
RECOG*IMP	-0.2	0.23	0.31	0.01	-0.28	-0.43	-0.31	-0.19	0.77	0.03
RECOG*TASKS	0.45	0.04	0.19	-0.07	-0.09	-0.12	-0.24	-0.44	0.65	0.02
ASSIM*JOB	0.34	-0.49	0.04	-0.02	0.35	0.44	0.03	-0.25	0.58	0.11
ASSIM*IMP	0.38	-0.45	-0.01	0.03	0.31	0.49	0.1	-0.45	0.59	0.05
ASSIM*TASKS	0.27	-0.43	-0.21	-0.11	0.48	0.51	0.12	-0.27	0.55	0.05
COMMER*JOB	-0.16	0.17	-0.11	0.08	-0.29	-0.28	0.44	0.48	0.68	0.05
COMMER*IMP	-0.17	0.27	-0.25	0.05	-0.39	-0.13	0.44	0.33	0.7	0.04
COMMER*TASKS	-0.69	0.32	-0.4	0.06	-0.37	0.25	-0.11	0.35	0.56	0.04

Note: P values < 0.05 are desirable for reflective indicators. ABS_CAP: absorptive capacity, RECOG: recognition, ASSIM, assimilation, COMMER: commercialising.

Table 4-12: Summary of PLS results - 1 year after offshoring announcement

Hypothesized Path	*Performance improvement*	*Support for Hypothesis*
Hypothesis 1a: *The degree of offshoring of high value-added tasks positively affects performance improvement.* **Higher degree of offshoring HVA → Higher performance improvement**	+ .09	H1a (+) not supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not positively affect performance improvement.* **Higher degree of offshoring STD ≠ Higher performance improvement**	+ .16**	H1b (-) not supported
Hypothesis 2a: *Organizational absorptive capacity will have a positive direct effect on performance improvement for organizations offshoring high value-added tasks.* **Absorptive capacity → Higher performance improvement**	+.06	H2a (+) not supported
Hypothesis 3a: *Absorptive capacity positively moderates the relationship between the degree of offshoring high value-added (HVA) tasks and performance improvement.* **Absorptive capacity * Degree of offshoring HVA → Higher performance improvement**	+ .10	H3a (+) not supported
Hypothesis 2b: *Organizational absorptive capacity will not have a direct effect on performance improvement for organizations offshoring standardized tasks.* **Absorptive capacity ≠ Higher performance improvement**	-.03	H2b (-) supported
Hypothesis 3b: *Absorptive capacity will not moderate the relationship between the degree of offshoring of standardized (STD) tasks and performance improvement.* **Absorptive capacity * Degree of offshoring STD ≠ Higher performance**	+ . 04	H3b (-) supported
Model 1 (Degree of offshoring HVA –performance) **R^2**	0.19	
Model 2 (Degree of offshoring STD –performance) **R2**	0.27	
Model 3 (Degree of offshoring HVA-Absorptive capacity – Performance) **R^2**	0.21	
Model 4 (Degree of offshoring STD-Absorptive capacity – Performance) **R2**	0.26	
Model fit indices and P values: **Model 1** APC ARS AVIF	 0.17 0.21 2.54	 P=<0.001 P= 0.004 Good if < 5
Model 2 APC ARS AVIF	 0.18 0.23 2.36	 P=<0.001 P= 0.003 Good if < 5
Model 3 APC ARS AVIF	 0.15 0.29 2.12	 P=<0.001 P=<0.001 Good if < 5
Model 4 APC ARS AVIF	 0.11 0.32 1.94	 P=<0.001 P= <0.001 Good if < 5

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01). Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

Table 4-13: Summary of PLS results - 3 years after offshoring announcement

Hypothesized Path	*Performance improvement*	*Support for Hypothesis*
Hypothesis 1a: *The degree of offshoring of high value-added tasks positively affects performance improvement.* **Higher degree of offshoring HVA → Higher performance improvement**	+ .19**	H1a (+)supported
Hypothesis 1b: *The degree of offshoring of standardized tasks will not positively affect performance improvement.* **Higher degree of offshoring STD ≠ Higher performance improvement**	+ .17**	H1b (-) not supported
Hypothesis 2a: *Organizational absorptive capacity will have a positive direct effect on performance improvement for organizations offshoring high value-added tasks.* **Absorptive capacity → Higher performance improvement**	+.07	H2a (+) not supported
Hypothesis 3a: *Absorptive capacity positively moderates the relationship between the degree of offshoring high value-added (HVA) tasks and performance improvement.* **Absorptive capacity * Degree of offshoring HVA → Higher performance improvement**	+ .28**	H3a (+) supported
Hypothesis 2b: *Organizational absorptive capacity will not have a direct effect on performance improvement for organizations offshoring standardized tasks.* **Absorptive capacity ≠ Higher performance improvement**	-.08	H2b (-) supported
Hypothesis 3b: *Absorptive capacity will not moderate the relationship between the degree of offshoring of standardized (STD) tasks and performance improvement.* **Absorptive capacity * Degree of offshoring STD ≠ Higher performance**	+ . 06	H3b (-) supported
Model 1 (Degree of offshoring HVA –performance) **R^2**	0.28	
Model 2 (Degree of offshoring STD –performance) **R2**	0.23	
Model 3 (Degree of offshoring HVA-Absorptive capacity – Performance) **R^2**	0.36	
Model 4 (Degree of offshoring STD-Absorptive capacity – Performance) **R2**	0.21	
Model fit indices and P values: **Model 1** APC ARS AVIF	0.18 0.21 1.53	P=<0.001 P= 0.004 Good if < 5
Model 2 APC ARS AVIF	0.11 0.22 1.44	P=<0.001 P= 0.002 Good if < 5
Model 3 APC ARS AVIF	0.19 0.38 2.40	P=<0.001 P=<0.001 Good if < 5
Model 4 APC ARS AVIF	0.17 0.47 1.87	P=<0.001 P= <0.001 Good if < 5

Note: *Significant at the 10% level (p<0.1); **significant at the 5% level (p<0.05); ***significant at the 1% level (p<0.01).
Currently offshoring organizations N=77. APC: average path coefficient; ARS: average R-squared ; AVIF: average variance inflation factor.

REFERENCES

Abernathy, W.J., and Utterback, J.M. (1978). Patterns of industrial innovation. *Technology Review*, 80, 41-47.

Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27–58.

Ajzen, I., and Fishbein, M. (1980). Understanding attitudes and predicting social behavior. *Englewood Cliffs, NJ: Prentice Hall*.

Allison, P.D. (1999). Logistic regression using the SAS: Theory and application. *Cary, North Carolina- based developer of analytics software (Cary, NC): SAS Institute.*

Alwin, D. F., and Hauser, R. M. (1975). The decomposition of effects in path analysis. American Sociological Review, 40, 35–47.

Amit, R., and Schoemaker, P. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33–46.

Argyris, C., and Schön, D. A.(1978). Organizational Learning: A Theory of Action Perspective. *Addison-Wesley, Reading, MA*.

Augier, M., & Teece, D. J. (2007). Dynamic capabilities and multinational enterprise: Penrosian insights and omissions. Management International Review, 47: 175–192.

Aulakh, P.S., Kotabe, M., and Teegen, H. (2000). Export Strategies and Performance of Organisations from Emerging Economies: Evidence from Brazil, Chile, and Mexico. *Academy of Management Journal*, 43(3), 342-361.

Autio, E., Sapienza, H. J., and Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5), 909–924.

Bagozzi, R. P. (1982). The Role of Measurement in Theory Construction and Hypothesis Testing: Toward a Holistic Model in A Second Generation of Multivariate Analysis. *C. Fornell, ed. New York: Praeger (1), 5-23.*

Bagozzi, R.P.; Fornell, C. (1982). Theoretical Concepts, Fornell, C. (Hrsg.): *A Second Generation of Evaluation, Volume 1 and 2, New York.*

Bardhan, A. D. (2006). Managing globalization of R&D: Organizing for offshoring innovation. *Human System Management*, 25(2), 103–114.

Barkema, H.G. and Vermeulen, F. (1998). International expansion through start up or acquisition: A learning perspective. *The Academy of Management Journal*, 41(1), 7-26.

Barkema, H. G., Shenkar, O., Vermeulen, F., & Bell, J. H. J. (1997). Working abroad, working with others: How firms learn to operate international joint ventures. *Academy of Management Journal, 40*(2), 426–442.

Barker, V., and Duhaime, I. (1997). Strategic change in the turnaround process: theory and empirical evidence. *Strategic Management Journal*, 18(1), 13-38.

Baron, R. M., and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Barney, J. (1991). Organisation resources and sustained competitive advantage. *Journal of Management,* 17(1), 99–120.

Belsley, D.A., Kuh, E., and Welsch, R.E. (1980). Regression diagnostics: Identifying influential data and sources of collinearity. *New York: John Wiley and Sons*.

Benner, M.J., and Tushman, M.L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of Management Journal*, 28(2), 238-56.

Bettis, R., Bradley, S., and Hamel, G. (1992) Outsourcing and industrial decline. *Academy of Management Executive* 6, 7-22.

Bhalla, A., Sodhi, M.S., and Son, B. (2008). Is more IT offshoring better? An exploratory study of western companies offshoring to South East Asia. *Journal of Operations Management*, 26(2), 322-35.

Bhalla, A., Sodhi, M.S., and Son, B. (2008). Is more IT offshoring better? An exploratory study of western companies offshoring to South East Asia. *Journal of Operations Management,* 26(2), 322-35.

Boateng, A., and Glaister, K. W. (2002). Performance of international joint ventures: Evidence for West Africa. *International Business Review,* 11(5), 523–541.

Brouthers, K. D., and Hennart, J.-F. (2007). Boundaries of the organisation: Insights from international entry mode research. *Journal of Management*, 33(3), 395–425.

Brynjolfsson, E., Malone, T., Gurbaxani, V., and Kambil, A. (1994). Does Information Technology Lead to Smaller Organisations? *Management Science*., 40(12), 1628-1644.

Cantwell, J., Dunning, J. H., and Lundan, S. M. (2010). An evolutionary approach to understanding international business activity: the coevolution of MNEs and the institutional environment. *Journal of International Business Studies*, 41, 567–586.

Carmel, E. and Agarwal, R. (2002) The Maturity of Offshore Sourcing of IT Work. *The Management of Information Systems Executive (MISQ).*

Chan, Y.E., Huff, S.L., Barclay, D.W., and Copeland, D.G. (1997).Business Strategic Orientation, Information Systems Strategic Orientation, and Strategic Alignment. *Information Systems Research*, 8 (2), 125-150.

Chandler, A. (1962). Strategy and structure: chapters in the history of the American enterprise. *The Massachusetts Institute of Technology* (*MIT), Press, Boston*.

Chang, S. J., & Rosenzweig, P. (2001). The choice of entry mode in sequential foreign direct investment. *Strategic Management Journal*, 22: 747–776

Chen YS, Lin MJJ, Chang CH. (2009). The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets. *Industrial Marketing Management* 38, 152–158.

Chesbrough, H. W., and Teece, D.J. (2002). Organizing for innovation: When is virtual virtuous?. *Harvard Business Review*, 80(8), 127-130.

Chiao, C., Li, P.Y. (2009). Are more exports better for a financial performance? The moderating effect of FDI .*European Journal of International Management*, 3 (3) ,286–301.

Chiquoine, B., and Hjalmarsson, E. (2009). Jacknifing stock return predictions. *Journal of Empirical Finance*, 16, 793–803.

Christensen, C. M., and Bower, J.L. (1996). Customer power, strategic investment, and the failure of leading organisations. *Strategic Management Journal*, 17(3), 197-218.

Cohen, S. (1978). Environmental load and the allocation of attention. *Advances in Environmental Psychology*, 1, 1-29.

Cohen, S., and Edwards, J. R. (1989). Personality characteristics as moderators of the relationship between stress and disorder. *Advances in the investigation of psychological stress*, 235–283.

Cohen, W.M., and Levinthal, D.A. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35, 128-152.

Contractor, F. J., Kumar, V., and Kundu, S. K. (2007). Nature of the relationship between international expansion and performance: The case of emerging market organisations. *Journal of World Business*, 42(4), 401–417.

Couto, V., Mani, M., Lewin, A. Y., and Peeters, C. (2006). The globalization of white collar work – Facts and fallout of next generation offshoring. *Booz Allen Hamilton Viewpoint*.

Couto, V., Mani, M., Lewin, A. Y., and Peeters, C. (2006). The globalization of white collar work – Facts and fallout of next generation offshoring. *Booz Allen Hamilton Viewpoint.*

Couto, V., Mani, M., Sehgal, V., Lewin, A.Y., Manning, S., and Russell, J.W. (2008). Offshoring 2.0: Contracting knowledge and innovation to expand global capabilities. *Service Provider Survey Report Booz and Co. and Duke University.*

D'Aveni, R., and Ravenscraft, D. (1994). Economies of integration versus bureaucracy costs: Does vertical integration improve performance? *Academy of Management Journal*, 37 (5), 1167–1206.

Damanpour, F. (1991). Organizational innovation - A meta analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-90.

Damanpour, F., Szabat, K.A., and Evan, W.M. (1989). The relationship between types of innovation and organizational performance. *Journal of Management Studies*, 26(6), 587-601.

Davies, S. (1979). The Diffusion of Process Innovations. Cambridge: *Cambridge University Press*.

Dess, G.G., Rasheed, A., McLaughlin, K., and Priem, R. (1995). The new corporate architecture. *Academy of Management Executive*, 9 (3), 7–20.

Dibbern, J., Goles, T., Hirschheim, R., and Jayatilaka, B. (2004). Information systems outsourcing: A survey and analysis of the literature. *The Data Base for Advances in Information Systems*, 35(4), 6–102.

Dobni, C. B. (2010). The Relationship between an innovation orientation and Competitive Strategy. *International Journal of Innovation Management*,14(2), 331-357.

Dodgson, M., (1991). Technology learning, technology strategy and competitive pressures. *British Journal of Management* 2, 132–149.

Dodgson, M., (1993). Organizational learning: a review of some literatures. *Organization Studies* 14, 375–394.

Doh, J. P. (2005). Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies*, 42, 695-704.

Doh, J.P., Bunyaratavej, K., Hahn, E. (2009). Separable but not equal: The location determinants of discrete services offshoring activities. *Journal of International Business Studies*. 40, 926-943.

Dosi, G. (1982). Technological paradigms and technological trajectories. *Research Policy*,11, 147-62.

Edwards, J.R., and Lambert, L.S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12, 1–22.

Ellis, A., and Carlton, H. (1965). The Transfer of Learning. New York: MacMillan.

Erber, G., and Sayed-Ahmed, A. (2005). Offshore outsourcing: A global shift in the present IT industry. *Intereconomics,* 40, 100–112.

Estes, W. K. (1970). Learning Theory and Mental Development. *Academic Press*, New York.

Ettlie, J.E., and Reza, E.R. (1992). Organizational integration and process innovation. *Academy of Management Journal*, 35(4), 795-827.

Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies*, 42(3), 675–683.

Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies,* 42(3), 675–683.

Feldman, M.S., (2000). Organizational routines as a source of continuous change. *Organization Science* 11, 611–629.

Fifarek, B. J., and Veloso, F. M. (2010). Offshoring and the global geography of innovation. *Journal of Economic Geography*, 10(4), 559–578.

Fifarek, B. J., Veloso, F.M., and Davidson, C.I. (2008). Offshoring technology innovation: A case study of rare-earth technology. *Journal of Operations Management*, 26(2), 222-38.

Fiol, C. M., and Lyles, M.A. (1985). Organizational learning. *Academy of Management Review*, 10(4), 803–813.

Fornell, C. and Larker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39-50

Fornell, C., and Larker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39-50.

Franko, L. G. (1989). Global corporate competition - who's winning, who's losing, and the R-and-D factor as one reason why. *Strategic Management Journal*, 10(5), 449-74.

Gefen, D., and Straub, D. (2000). The Relative Importance of Perceived Ease-of-Use in IS Adoption: A Study of e-Commerce Adoption. Journal of the Association for Information Systems (JAIS), 8(1), 1-30.

Ghosal, V., and Loungani, P. (2000). The differential effect of uncertainty on investment in small and large businesses. Review of Economics and Statistics, 82 (2), 338–343.

Gilley, K., and Rasheed., A. (2000). Making more by doing less: An analysis of outsourcing and its effects on firm performance. *Journal of Management*, 26(4), 763–790.

Gooris, J., and Peeters, C. (2012). Home-Host Country Distance and Governance Choices in Service Offshoring. *Ecore discussion paper.*

Gospel H, Sako M. (2010). The unbundling of corporate functions: The evolution of shared services and outsourcing in human resource management. *Industrial and Corporate Change* 19: 1-31.

Gottfredson, M., Puryear, R., and Phillips, S. (2005). Strategic sourcing from periphery to core. *Harvard Business Review*, 14–17.

Gujarati, D.N. (2003). Basic econometrics (4th ed.). *New York: McGraw-Hill.*

Hahn, E.D., Doh, J.P., and Bunyaratavej, K. (2009). The evolution of risk in information systems offshoring: The effect of home country risk, firm learning, and competitive dynamics. *Management Information Systems Quarterly*, 33(3), 597-616.

Hamel, G. (2002). Leading the Revolution. *New York: Plume*.

Hamel, G. (2006). The Why, What and How of Innovation Management. *Harvard Business Review*, February, 72–84.

Hammer, M. (2004). Deep change: How operational innovation can transform your Company. *Harvard Business Review*, April, 84–96.

Han, J. K., Narmwoon, K., and Rajendra, K. S. (1998). Market Orientation and Organizational Performance: Is Innovation a Missing Link? *Journal of Marketing*, 62 (October), 30-45.

Hannan, M.T., and Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review*, 49(2): 149–164.

Hannan, M.T., and Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review*, 49(2): 149–164.

Hargadon, A. B. (2002). Brokering knowledge: Linking learning and innovation. *Research in Organizational Behaviour*, 24, 41-85.

Hayes, A. F., and Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioral Research*, 45(4), 627-660.

Hitt, M. A., Hoskisson, R.E., and Ireland, R.D. (1994). A midrange theory of the interactive effects of international and product diversification and product diversification on innovation and performance. *Journal of Management*, 20(2), 297-326.

Holcomb, T. R., and Hitt, M. A. (2007). Toward a model of strategic outsourcing. *Journal of Operations Management*, 25(2), 464–481.

Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Example from the child-clinical and paediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65. 599-610.

Huber, G. P. (1991). Organizational Learning: The Contributing Processes and The Literatures. Organization Science 2(1): pp. 88–115.

Hult, G. T. M., Hurley, R.F., and Knight, G.A. (2004). Innovativeness: Its antecedents and effect on business performance. *Industrial Marketing Management*, 33, 429-38.

Hurley, R. F., and Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 68(2), 42-54.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Time to success in Offshoring Business Processes. *Management International Review*, 51, 65-92.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Offshoring governance modes for offshoring activities: A comparison of US and German organisations. *International Business Review*, 20, 291-313.

Hutzschenreuter, T., Pedersen, T., and Volberda, H. W. (2007). The role of path dependency and managerial intentionality: A perspective on international business research. *Journal of International Business Studies*, 38(7), 1055–1068.

Ivarsson, I. and Alvstam, C.G. (2013). Embedded internationalization: How small-and medium-sized Swedish companies use business-network relations with Western customers to establish own manufacturing in China. *Asian Business & Management*, 12(5), 565-589.

Jabbour, L. (2008). Slicing the Value Chain Internationally: Empirical Evidence on the Offshoring Strategy by French Organisations. *University of Nottingham Research Paper Series*.

Jacobides, M.G., and Winter, S.G. (2006). The co-evolution of capabilities and transaction costs: Explaining the institutional structure of production. *Strategic Management Journal*, 26(5), 395-413.

James, L. R., and Brett, J. M. (1984). Mediators, moderators, and test for mediation. *Journal of Applied Psychology*, 69, 307-321.

Jensen, J. J. P., Van den Bosch, F. A. J., and Volberda, H.W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, 52(11), 1661-74.

Jensen, P. D. Ø., and Pedersen, T. (2012). Offshoring and international competitiveness: antecedents of offshoring advanced tasks. *Academy of Marketing Science*, 40, 313–328.

Jensen, PDØ. (2009). A learning perspective on advanced services offshoring. *Journal of International Management,* 15, 181-193.

Jensen, PDØ. (2009). A learning perspective on advanced services offshoring. *Journal of International Management,* 15, 181-193.

Johanson, J., & Vahlne, J. E. (1990). The mechanisms of internationalization. *International Management Review*, 7(4): 11–24.

Kedia, B. L., and Mukherjee, D. (2009). Understanding offshoring: A research framework based on disintegration, location, and externalization advantages. *Journal of World Business*, 44(3), 250–261.

Kenney, M., Massini, S., and Murtha, T. P. (2009). Offshoring administrative and technical work: New fields for understanding the global enterprise. *Journal of International Business Studies*, 40, 887-900.

Kimberly, J.R., and Quinn, R.E. (1984). Managing organizational translations. *Dow Jones-Irwin, Homewood,* 295–313.

Kline, R.B. (2005). Principles and Practice of Structural Equation Modelling 2nd ed. *The Guilford Press: New York.*

Kline, R.B. (2009). Becoming a Behavioral Science Researcher: A Guide to Producing Research that Matters. *The Guilford Press: New York*.

Knight, G. A., and Cavusgil, S.T. (2004). Innovation, organizational capabilities, and the bornglobal organisation. *Journal of International Business Studies*, 35(2), 124-41.

Knight, K.E. (1967). The descriptive model of the intra-organisation innovation process. *The Journal of Business,* 40(4), 478-96.

Kock, N. (2009). Information systems theorizing based on evolutionary psychology: An interdisciplinary review and theory integration framework. *Management Information Systems Quarterly*, 33(2), 395-418.

Kock, N. (2011).Using Warp PLSine Collaboration studies: Descriptive statistics, settings, and key analysis results. *International Journal of e-Collaboration*, 7(2), 1–18.

Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19: 411–432.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3: 383–397.

Kotabe, M. (1989). Hollowing-out of U.S. multinationals and their global competitiveness: An intraorganisation perspective. *Journal of Business Research*, 19, 1–15.

Kotabe, M. (1990). The relationship between offshore sourcing and innovativeness of U.S. multinational organisations: An empirical investigation. *Journal of International Business Studies*, 21(4), 623–638.

Lane, P., and Lubatkin, M. (1998). Relative absorptive capacity and interorganizational learning. *Strategic Management Journal*, 19, 461–477.

Lane, P.J., Salk, J.E. and Lyles, M.A. 2001. Absorptive capacity, Learning and performance in international joint ventures. *Strategic Management Journal*, 22, 1139-1161.

Larsson, R., Bengtsson, L., Henriksson, K., and Sparks, J. (1998). The interorganizational learning dilemma: Collective knowledge development in strategic alliances. *Organization Science*, 9, 285–305.

Lei, D., and Hitt, M. (1995). Strategic restructuring and outsourcing: The effect of mergers and acquisitions and LBOs on building organisation skills and capabilities. *Journal of Management*, 21(5), 835–859.

Lenox M, King A. (2004). Prospects for developing absorptive capacity through internal information provision. *Strategic Management Journal* 25 (4): 331–345.

Leonard-Barton DL. (1995). Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation. *Harvard Business School Press: Boston, MA.*

Levinthal, D.A., James, G. (1993). The Myopia of Learning. *Strategic Management Journal* 14, 95-112.

Levitt, B., March, J.G., (1988). Organizational learning. *Annual Review of Sociology* 14, 319–340.

Levy, D. L. (2005). Offshoring in the new global political economy. *Journal of Management Studies,* 42(3), 685-93.

Lewin, A. Y., Long, ., and Carroll, . (1999). The coevolution of new organizational forms. *Organization Science*, 10(5), 535-50.

Lewin, A. Y., and Couto, V. (2007). Next Generation Offshoring: The Globalization of Innovation. *Duke University Centre for International Business Education and Research (CIBER)/Booz Allen Hamilton Report, Durham.*

Lewin, A. Y., and Peeters, C. (2006a). Forethought growth strategies: The top-line allure of offshoring. *Harvard Business Review*, 83(3), 22–23.

Lewin, A. Y., and Peeters, C. (2006b). Offshoring work: Business hype or the onset of fundamental transformation. *Long Range Planning*, 39(3), 221–239.

Lewin, A. Y., Massini, S., and Peeters, C. (2009). Why are companies offshoring innovation? The emerging global race for talent. *Journal of International Business Studies*, 40, 901-925.

Lewin, A.Y., Massini, S., and Peeters, C. 2009. The Microfoundations of Internal and External Absorptive Capacity Routines: A New Perspective. *The Academy of Management (AOM) meeting, Chicago, 7-12 August.*

Lskavyan,V., and Spatareanu, M. (2008). Host country's governance and the size of foreign investors. *Economics Letters*, 100 (2), 258–261.

Luo, Y. (2002). Capability exploitation and building in a foreign market: Implications for multinational enterprises. *Organization Science*, 13: 48–63.

Luo, Y., and Peng, M.W. (1999). Learning to compete in a transition economy: Experience, environment, and performance. *Journal of International Business Studies*, 30(2), 269-96.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., and Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods,* 7, 83-104.

Manning, S., Massini, S., and Lewin, A. Y. (2008). A dynamic perspective on next-generation offshoring: The global sourcing of science and engineering talent. *Academy of Management Perspectives,* 22(3), 35 54.

Maskell P., Pedersen T., Petersen B., Dick-Nielsen J. (2006). Learning Paths to Offshore Outsourcing - From Cost Reduction to Knowledge Seeking. *Centre for Strategic Management and Globalization (SMG) Working Paper.*

Maskell, P., Pedersen, T., Petersen, B., and Dick, N.J. (2007). Learning paths to offshore outsourcing: From cost reduction to knowledge seeking. Industry and Innovation, 14, 239–257.

Massini, S. (2010). Microfoundations of Absorptive Capacity Capabilities: The role of Individuals in Shaping Organizational Routines. *Imperial College London Business School. Paper presented at Summer Conference 2010.*

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management,* 27(1), 45-63.

Mihalache, O.R., Jansen, J.J.J.P., Van Den Bosch, F.A.J., and Volberda, H.W. (2012). Offshoring and firm innovation: The moderating role of top management team attributes. *Strategic Management Journal*, 33(13), 1480-1498.

Murray, J.Y., Kotabe, M., and Wildt, A.R. (1995). Strategic and financial performance implications of global sourcing strategy: A contingency analysis. *Journal of International Business Studies,* 26(1), 181–202.

Nasbeth, L., and Ray, G.F. (1974). The diffusion of new industrial processes. *London: Cambridge University Press.*

Nicholson, N., Rees, A., and Brooks-Rooney, A. (1990). Strategy, Innovation and Performance. *Journal of Management Studies*, 27(5), 511-34.

Novak, S., and Stern, S. (2008). How does outsourcing affect performance dynamics? Evidence from the automobile industry. *Management Science*, 54(12), 1963-79.

Nunnally, J.C. and Bernstein, I.H. (1994). Psychometric Theory, 3rd ed. McGraw-Hill, Inc.: New York.

Nunnally, J.C. (1978). Psychometric Theory. *McGraw Hill: New York.*

Osborne, J.W. (2008). Best Practices in Quantitative Methods. *Sage Publications: Thousand Oaks, CA*.

Oshri, I., Kotlarsky, J. and Willcocks, L. (2009). *The Handbook of Global Outsourcing and Offshoring. Palgrave August.*

Parmigiani, A. (2007). Why do organisations both make and buy? An investigation of concurrent sourcing. *Strategic Management Journal*, 28, 285–311.

Pedersen, T., and Jensen, P. D. O. (2007). Offshoring of advanced activities, Paper presented at European Academy of Management (EURAM) Annual Conference Current Management Thinking: Drawing from Social Sciences and Humanities to Address Contemporary Challenges. Brussels, Belgium: *The European Academy of Management (EURAM).*

Pedhazur, E.J. (1997). Multiple regression in behavioral research. *Orlando, FL: Harcourt Brace.*

Pelegrín, A., and Bolancé, C. (2011).Offshoring and company characteristics: some evidence from the analysis of Spanish firm data. *The Barcelona Institute of Economics (IEB).*

Penrose, E. T. (1959). The theory of the growth of the organisation. *Oxford: Blackwell.*

Peteraf, M.A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal,* 14, 179-91.

Porter, M. E. (1990). The competitive advantage of nations. *New York The Free Press.*

Prahalad, C.K., and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79–93.

Prahalad, C.K., and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review,* 68 (3), 79–91.

Prange, C., Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. *Journal of World Business*, 46 (1), 126-133.

Preacher, K.J., and Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, and Computers*, 36(4), 717-731.

Quenouille, M. H. (1949). Approximate Tests of Correlation in Time-Series. *Journal of the Royal Statistical Society*, 11(1), 68-84

Quinn, J.B. (1992). Intelligent enterprise: A knowledge and service based paradigm for industry. *New York: Free Press*.

Quinn, J.B. (1999). Strategic outsourcing: leveraging knowledge capabilities. *Sloan Management Review*, 40(4), 9-22.

Quinn, J.B., and Hilmer, F.G. (1994). Strategic outsourcing. *Sloan Management Review*, 35, 43- 55.

Reeves, L.M., and Weisberg, R.W. (1994). The role of content and abstract information in analogical transfer. *Psychological Bulletin*, 115, 381-400.

Roza, M. (2011). The Relationship between Offshoring Strategies and Firm Performance: Effect of innovation, absorptive capacity and firm size. (Doctoral dissertation). *Erasmus University, Rotterdam.*

Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capability perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31: 914–933.

Shrout, P. E., and Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422-445.

Slaughter, S. A. and Ang, S. (1996). Employment Outsourcing In Information Systems, *Communications of the Association for Computing Machinery (ACM),* 39(7), 47-54.

Smith, M.A., Mitra, S., and Narasimhan, S. (1998). Information systems outsourcing: A study of pre-event organisation characteristics. *Journal of Management Information Systems*, Fall, 15(2), 61-93.

Song, J. (2002). Firm capabilities and technology ladders: Sequential foreign investments of Japanese electronics firms in East Asia. *Strategic Management Journal*, 23: 190–210.

Srivastava, S. C., Teo, T. S. H., and Mohapatra, P. S. (2008). Business-related determinants of offshoring intensity. *Information Resources Management Journal*, 21(1), 44–58.

Steensma, H.K., Marino, L., Weaver, K.M., and Dickson, P.H. (2000). The influence of national culture on the formation of technology alliances by entrepreneurial organisations. *Academy of Management Journal* 43(5), 951-73.

Stevens, J.P. (2002). Applied multivariate statistics for the social sciences. *NJ: Lawrence Erlbaum.*

Stopford, J. J., and Wells, L. T. (1972). Managing the multinational organisation of the organisation and overlap of subsidiaries. *New York: Basic Books.*

Tallman, S., & Fladmore-Lindquist, K. (2002). Internationalization, globalization, and capability-based strategy. *California Management Review*, 45(1): 116–135.

Taylor, S. E., and Aspinwall, L. G. (1996). Mediating and moderating processes in psychosocial stress: Appraisal, coping, resistance, and vulnerability. Psychosocial stress: Perspectives on structure, theory, life-course, and methods .*CA: Academic Press*, 71–110

Tebachnick, B.G., and Fidell, L.S. (2001). Using multivariate statistics. *Boston: Allyn and Bacon*.

Teece, D. J. (1987). Profiting from technological innovation: Implications for integration, collaboration, licensing, and public policy. *International Collaborative Ventures in U.S. Manufacturing. Cambridge, MA.*

Teece, D.J., Pisano, G., and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-33.

Terpstra, V., & Chow-Ming, Y. (1988). Determinants of foreign investment of U.S. advertising agencies. *Journal of International Business Studies, 19*(1), 33–46.

Thornhill, S. (2006). Knowledge, innovation and firm performance in high- and low-technology regimes. *Journal of Business Venturing*, 21, 687-703.

Tiwana, A. (2008). Does technological modularity substitute for control? A study of alliance performance in software outsourcing. *Strategic Management Journal*, 29, 769-80.

Tsai W. (2001). Knowledge transfer in intraorganizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44: 996–1004.

Tukey, J.W. (1958). Bias and confidence in not-quite large samples. *The Annals of Mathematical Statistics.* 29(2), 614.

Tushman, M.L., and Nadler, D.A. (1986). Organizing for innovation. *California Management Review*, 28(3), 74-82.

Tyre, M. and Hauptman, O. (1992). Effectiveness of organisational response to technological change in the production process. *Organisation Science*, 3(3), Printed in U.S.A.

The United Nations Conference on Trade and Development (UNCTAD) and Roland Berger Associates (2004). Service Offshoring Takes Off in Europe – In Search of Improved Competitiveness. Paris: *The United Nations Conference on Trade and Development (UNCTAD).*

The United Nations Conference on Trade and Development (UNCTAD). (2004). *World investment report, the shift towards services. New York, Geneva: VN.*

Van den Bosch, F.A.J, Wijk, R., Volberda, H.W. (2003). Absorptive Capacity: Antecedents, Models and Outcomes. *Erasmus Research Institute of Management report series ERS-2003-035-STR.*

Volberda HW, Foss NJ, Lyles MA. (2010). Absorbing the concept of absorptive capacity: how to realize its potential in the organization field. *Organization Science* **21**: 931–951.

Wales, W., Parida, V., and Patel P. (2012). Too Much of A Good Thing? Absorptive capacity, firm performance, and the moderating role of entrepreneurial orientation. *Strategic Management Journal.* DOI: 10.1002/smj.2026

Wang, C. L., and Pervaiz, K. A. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management, 7(4), 303-313.*

Wegener, D. T., and Fabrigar, L. R. (2000). Analysis and design for nonexperimental data: Addressing causal and noncausal hypotheses. Handbook of research methods in social and personality psychology. Cambridge University Press, 412–45.

Weigelt, C. (2009). The effect of outsourcing new technologies on integrative capabilities and performance. *Strategic Management Journal* 30(6), 595-616.

West, M.A., and Farr, J.L.(1990). Innovation at work. In Innovation and Creativity at Work: Psychological and Organizational Strategies. In M.A. West, J.L. Farr (Eds.), 3–13.

Whitaker, J., Mithas, S., and Krishnan, M.S. (2005). Antecedents of onshore and offshore business process outsourcing. Association for Information Systems, 85–96.

Youngdahl, W., and Ramaswamy, K. (2008). Offshoring knowledge and service work: A conceptual model and research agenda. Journal of Operations Management, 26(2), 212–221.

Zahra, S. A., and George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185-203.

Zahra, S.A., and Hayton, J.C. (2008). The effect of international venturing on firm performance: The moderating influence of absorptive capacity. *Journal of Business Venturing*, 23, 195-220.

Zhang Y, Li H, Li Y, Zhou L-A.(2010). FDI spillovers in an emerging market: the role of foreign firms' country origin diversity and domestic firms' absorptive capacity. *Strategic Management Journal* **31**(9): 969–989.

Zmud, R.W. (1982). Diffusion of modern software practices: Influence of centralization and formalization. Management Science, 28(12), 1421-31.

Chapter 5

5   CONCLUSIONS AND IMPLICATIONS

5.1 Introduction

In Chapter 1 the research aim of this thesis was defined as being to advance our understanding of the offshoring process and to investigate the relationship between the degree of offshoring and performance improvement at task-level. In order to achieve the research aim, the thesis was divided into three research topics:

1. *Offshoring strategy (i.e. what drives them to offshore and which strategic choices should be adopted). It considered whether the differential performance among offshoring organizations is influenced by implementing different offshoring strategies such as cost-reduction, efficiency-enhancing strategy and growth strategy.*

2. *Offshoring governance modes (i.e. how to govern the offshoring process). It considered whether offshoring governance modes (captive versus third party) have different effects on the relationship between the degree of offshoring and performance improvement.*

   standardized
3. *Offshoring absorptive capacity (i.e. how to capitalise offshoring knowledge). It considered the organizations' capacity to absorb knowledge (i.e. absorptive capacity) from external environment and integrate it in their offshoring implementations in order to achieve performance improvement within the estimated time frame.*

In this chapter we discuss (1) the conclusions reached as a result of empirically examining the research questions and how the above stated research aims were met; (2) how the three research studies contributed to the existing offshoring research; and (3) the implications of the research studies. The overall conceptual framework and a summary of the results of the analysis for the three research studies are respectively shown in figure 5.1 and able 5.1.

Figure 5-1: Integrated research model- summary of results for studies I-III

H2a1 (-) S, H2a2 (-) NS
H2b1 (+) S, H2b2 (+) S
H2c1 (+) S , H2c2 (+) S at 10%,

H2a1 (+) S, H2a2 (-) NS
H2b1 (-) S, H2b2 (+) S

H2a (+) NS
H2b (-) NS

Study I : Offshoring strategies

(a) Cost -reduction
(b) Efficiency -enhancement
(c) Growth

Study II: Offshoring governance mode

(a) Captive (Full and shared control)
(b) Non-Captive (Third party)

Study III: Offshoring and absorptive capacity

(a) Knowledge recognition
(b) Knowledge integration
(c) Knowledge implementation

H3a1 (-) S
H3a2 (-) NS
H3b1 (+) S
H3b2 (+) S
H3c1 (+) S
H3c2 (+) NS

H3a1 (+) S
H3a2 (-) NS
H3b1 (-) S
H3b2 (+) S

H3a (+) S
H3b (-) S

The Degree of offshoring
High value-added tasks VS. Standardised tasks

(a) No. of Jobs
(b) No. of Tasks
(c) No. of Offshoring Implementations

Firm performance
Difference between post-offshoring and pre- offshoring

(a)   Net operating profit
(b) % Cost of goods sold / Sales
(c) % Shareholder's value growth

H1a : Deg HVA   (+) S
H1b : Deg STD   (-) NS

Note: S: supported; NS: not supported
Deg: the degree of offshoring;
HVA: high value-added tasks; STD: standardised tasks
Direct impact
Moderation impact

Control
(a) International experience (+)
(b) Organisation age (-)
(c) Organisation size
(d) Service Industry (+)

Note: Data was collected between 2010 and 2011.

Summary of hypotheses tested in studies I-III

Table 5-1: Hypotheses tested in Study I: Offshoring Strategy

Hypothesis study I	Year 1	Year 3	Year 5
H1a: The degree of offshoring of high value-added tasks will be significantly and positively related to performance improvement**.**	(+) not supported	(+)supported	(+)supported
H2a1: Cost- reduction strategy negatively influences performance improvement for organisations offshoring high-value-added tasks.	(-) not supported	(-) supported	(-) supported
H2a2: Cost- reduction strategy negatively influences performance improvement for organizations offshoring standardized tasks.	(-) not supported	(-) not supported	(-) not supported
H3a1: Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.	(-) not supported	(-) supported	(-) supported
H3a2: Cost-reduction strategy negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.	(-) not supported	(-) not supported	(-) not supported
H1b: The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement.	(-) not supported	(-) not supported	(-) not supported
H2b1: Efficiency enhancing strategy positively influences performance improvement for organisations offshoring high-value-added tasks.	(+) not supported	(+) supported	(+) supported
H2b2: Efficiency enhancing strategy positively influences performance improvement for organisations offshoring standardized tasks.	(+) not supported	(+) supported	(+) supported
H3b1: Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.	(+) supported	(+) supported	(+) supported
H3b2: Efficiency enhancing strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.	(+) supported	(+) supported	(+) supported
H2c1: Growth offshoring strategy positively influences performance improvement for organizations offshoring high-value-added tasks.	(+) not supported at 10%	(+) not supported	(+) supported at 10%
H2c2: Growth offshoring strategy positively influences performance improvement for organizations offshoring standardized tasks**.**	(+) not supported	(+) not supported	(+) supported at 10%
	(+) not supported	(+) not supported	(+) supported

H3c1: Growth offshoring strategy positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.			
H3c2: Growth offshoring strategy positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.	(+) not supported	(+) not supported	(+) not supported
Independent variable (s)	The degree of offshoring		
Dependent variable (s)	Performance improvement: Difference between post-offshoring and pre-offshoring performance		
Moderating variable (s)	Offshoring strategy		
Analysis level	Task-level		
Organization Size	Small-to-medium sized organizations (0-200) employees		
Statistical method	Partial Least Squares (PLS)		

Table 5-2: Hypotheses tested in Study II: Offshoring Governance Mode

Hypothesis study II	Year 1	Year 3	Year 5
H1a: The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.	(+) not supported	(+) supported	(+) supported
H2a1: Captive offshoring governance mode positively effects performance improvement for organizations offshoring high value-added tasks.	(+) not supported	(+) supported at 10%	(+) supported
H2a2: Captive offshoring governance mode negatively effects performance improvement for organizations offshoring standardized tasks.	(-) not supported	(-) not supported	(-) not supported
H3a1: Captive offshoring governance mode positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.	(+) supported	(+) supported	(+) supported
H3a2: Captive offshoring governance mode negatively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.	(-) not supported	(-) not supported	(-) not supported
H1b: The degree of offshoring of standardized tasks will not be significantly related to performance improvement.	(-) not supported	(-) not supported	(-) not supported
H2b1: Third party offshoring governance mode negatively effects performance improvement for organizations offshoring high value-added tasks.	(-) not supported	(-) not supported	(-) supported
H2b2: Third party offshoring governance mode positively effects performance improvement for organizations offshoring standardized tasks.	(+) supported	(+) supported	(+) supported
H3b1: Third party offshoring governance mode negatively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement.	(-) not supported	(-) supported	(-) supported
H3b2: Third party offshoring governance modes positively moderates the relationship between the degree of offshoring of standardized tasks and performance improvement.	(+) supported	(+) supported	(+) supported
Independent variable (s)	The degree of offshoring		
Dependent variable (s)	Performance improvement: Difference between post-offshoring and pre-offshoring performance		
Moderating variable (s)	Offshoring governance mode		
Analysis level	Task-level		
Organization Size	Small-to-medium sized organizations (0-200) employees		
Statistical method	Partial Least Squares (PLS)		

Table 5-3: Hypotheses tested in Study III: Absorptive Capacity

Hypothesis study III	Year 1	Year 3	Year 5
H1a: The degree of offshoring of high value-added tasks will be significantly and positively related to offshoring performance.	(+) not supported	(+)supported	(+)supported
H2a: Organizational absorptive capacity will have a positive direct effect on performance improvement for organizations offshoring high value-added tasks.	(+) not supported	(+) not supported	(+) not supported
H3a: Absorptive capacity positively moderates the relationship between the degree of offshoring high value-added tasks and performance improvement.	(+) not supported	(+) supported	(+) supported
H1b: The degree of offshoring of standardized tasks will not be significantly and positively related to performance improvement.	(-) not supported	(-) not supported	(-) not supported
H2b: Organizational absorptive capacity will not have a direct effect on performance improvement for organizations offshoring standardized tasks.	(-) supported	(-) supported	(-) supported
H3b: Absorptive capacity will not moderate the relationship between the degree of offshoring of standardized tasks and performance improvement.	(-) supported	(-) supported	(-) supported
Independent variable (s)	The degree of offshoring		
Dependent variable (s)	Performance improvement: Difference between post-offshoring and pre-offshoring performance		
Moderating variable (s)	Absorptive capacity		
Analysis level	Task-level		
Organization Size	Small-to-medium sized organizations (0-200) employees		
Statistical method	Partial Least Squares (PLS)		

5.2 Research discussions and findings

5.2.1 Overview

The research framework employed in this research shows that there are many pathways to performance improvement. Prior research by prominent scholars in the field of offshoring have claimed that, in addition to other factors such as the offshoring destination characteristics, offshoring organizations, to achieve the optimal outcomes within the estimated time frame, need to consider the following fundamental factors of offshoring success. These factors include: (1) the nature of the task offshored, (2) the offshoring strategic drivers guiding the offshoring process, (3) the offshoring governance mode to be used and (4)

the organizations' capacity to absorb knowledge (i.e. absorptive capacity) from external environment and integrate it to their offshoring implementations. Inspired by these propositions, papers I to III of this thesis focus on empirically testing the veracity of these claims.

5.2.2 Discussions for Study I, Study II and Study III

Throughout the three research studies, the findings confirmed the positive direct effect of the degree of offshoring high value-added tasks on performance improvement. However, this finding was only confirmed after 3 years of the offshoring announcement. On the other hand, the findings showed that organizations offshoring standardized tasks were quickly able to achieve their expected performance improvement after one year of the offshoring announcement.

More specifically, in relation to Study I, this research contributes to the understanding of global sourcing strategy by explaining the differing performance among offshoring organizations due to using different offshoring strategies and offshoring different varieties of tasks. Three different groups of offshoring strategies were examined, including *cost-reduction, efficiency-enhancing and growth strategies.* The findings confirmed the negative direct and moderating effect of cost-reduction strategy on performance improvement for organizations offshoring high value-added tasks and the positive direct and moderating effect for organizations offshoring standardized tasks. On the other hand, the findings confirmed the positive direct and moderating effect of efficiency-enhancing strategy on performance improvement for organizations offshoring high value-added tasks or standardized tasks. In addition, the findings confirmed a positive direct and moderating effect of growth strategy on performance improvement for organizations offshoring high value-added tasks. However, this finding was only confirmed when performance was measured five years after the offshoring announcement.

In Study II, the research focus turned to an examination of the most often-used offshoring governance modes simultaneously, i.e. captive and third party. It empirically examined the direct and moderating effect of these two modes on performance improvement in case of offshoring high value-added tasks and standardized tasks. The findings confirmed the positive direct and moderating effect for captive governance mode for offshoring high value-added tasks. On the other hand, the findings confirmed the positive direct and moderating effect of

third party governance mode for offshoring standardized tasks. standardizedstandardizedHowever, the study results confirmed that using third party offshoring governance mode exerts a significant negative direct and moderating effect on performance improvement for organizations offshoring high value-added tasks. This negative impact only became clear if performance is measured five years after the offshoring announcement.

Finally, in Study III, the focus was the absorptive capacity of the organization in the offshoring of high value-added tasks context. This study expanded the work of Jensen (2009) on organizational learning by linking the organizational capability of 'absorptive capacity' to performance outcomes. The findings show that absorptive capacity has a significant positive moderation effect in case of offshoring high value-added tasks. The findings show that absorptive capacity has a significant positive moderation effect in case of offshoring high value-added tasks.

In an offshoring context, prior international experience is also deemed to be an important driver for the adoption of offshoring and the results from this study empirically confirmed the positive control effect of international experience. The findings also showed the positive control effect of service industry on offshoring. In line with prior research outcomes, the findings of this study also showed that organization age has a negative control effect on offshoring performance. This means that younger and experienced Australian small to medium-sized service offshoring organizations are more active and innovative than older small to medium-sized service offshoring organizations. This interesting finding can be justified on the basis that older organizations might be reluctant to pursue offshoring. Inertia and sunk costs in ongoing operations might inhibit these companies' ability to explore offshoring operations outside their boundaries. In addition, older organizations tend to be more inert compared to younger organizations, thus leading to lower levels of innovativeness than younger organizations.

5.3 Thesis contribution and implications

5.3.1 Research implications

This thesis offers an interesting contribution to the scholarly debate by focusing on Australia and on small and medium-sized enterprises (SMEs) using quantitative methodologies. The thesis tackles the research problems surrounding the relationship between the decision to offshore various activities and the financial performance of SMEs in Australia. This research problem has received little attention within the Australian context particularly as it pertains to SMEs.

This thesis adds value to the academic debate in two particular ways:
- By developing and empirically testing a comprehensive research model, adopting a multi theoretical framework to explain the relationship between offshoring and performance improvement; and
- By offering a conceptual integration of different literature streams to investigate three major research questions: (a) the drivers of offshoring and the strategic choices to adopt; (b) offshoring governance modes, and (c) offshoring absorptive capacity.

Furthermore, the thesis presents interesting contributions to policy-makers and practitioners (in particular senior managers of SMEs) by analysing offshoring strategic drivers, governance modes and absorptive capacity at a disaggregate task-level rather than firm- or function-level focusing on long-term performance improvement rather than short-term.

This will hopefully inform policy-makers and practitionersas to the importance of the "slicing" of value chain activities and time-frames, enabling them to achieve better performance outcomes. This will contribute to a better understanding of which offshoring strategy should be adopted, which governance mode should be used and how absorptive capacity can be improved

First, this thesis presents a comprehensive framework for explaining the relationship between offshoring and performance for the Australian small to medium-sized organizations, which could be built-on by other scholars. It does this through a long, detailed survey, which is aligned to the international data collection requirements of the Offshoring Research Network

(ORN). This study substantially extends the information collected through the typical ORN database by adding offshoring question specific to the Australian environment and provides the opportunity for further studies looking at the offshoring of Australian SMEs from different angles.

Second, this research has investigated the effect of offshoring on small and medium size enterprises (SMEs) employing a disaggregated view focusing on the task- level instead of a firm-level or a function-level. The three studies show how small and medium-sized organizations can apply different offshoring strategies to reduce cost, improve their efficiency or accelerate their growth and achieve globalisation. The research also confirmed the relevance of matching the offshoring governance mode with the nature of the tasks offshored to achieve the targeted performance improvement within the expected time frame. Finally the research confirmed the absorptive capacity of the Australian organizations to learn from previous offshoring activities how to cope with the new challenges, lay the foundations for an efficient transition phase and how to successfully offshore high value-added tasks.

Third, this research explores the under-researched aspect of the implementation time frame which is required to achieve the expected performance improvement from offshoring high value-added tasks versus standardized tasks. Our analysis shows that it takes longer than one year for the positive outcomes of offshoring to emerge. Therefore, specific attention needs to be paid to the longer-term performance measures. This can serve as new avenue for future exploratory and confirmatory studies by academics.

Fourth, this research explores the antecedents to offshoring of advanced tasks as well as standardized tasks considering the control effect of task characteristics, in addition to organization-specific factors such as industry, organization size, international experience and organization age.

Fifth, offshoring studies of published financial data about Australian small to medium-sized organizations are rare. Our research studies used audited financial data and hence provide a more objective evaluation of an organization's performance and characteristics than the perception-based data typically used in case studies. Moreover, using this data makes our research more easily reproducible.

5.3.2 Methodology implications

Managers offshore in response to certain circumstances that exist in the organization and its environment at the time of offshoring. These circumstances are related to the offshoring drivers and hypotheses stated in our research. We evaluate the existence of these circumstances through their impact on the financial performance measures chosen and by using public financial data. This research has an important analytical implication by pointing into two important analytical problems researchers need to be aware of which have rarely been considered in previous offshoring research papers.

First, other circumstances that are unrelated to offshoring can affect the accuracy of the empirical evidence revealed from the financial data investigated. To resolve this problem, we adjusted according to industry the value of the financial performance data for each examined organization (Brown, Gatian, and Hicks, 1995; Kaplan, 1989 and Smith, 1990, Smith et al., 1998). That is, we used deviations from industry medians instead of the "raw" values of the financial data obtained from the public sources. The rationale behind this approach is that circumstances unrelated to offshoring will exist uniformly across the industry and will not be abnormal to organizations that offshore. Thus, deducting the industry median partially removes the impact of these circumstances on the performance measures chosen.

Second, the circumstances that foster offshoring may expose themselves through performance measures that are _not analysed_ in this study. Once again, this problem was resolved in our research by limiting the analysis to a few specific hypotheses that can be rationally assessed through the performance measures chosen and by selecting the applicable performance measures after a careful analysis of past offshoring literature. Since the financial performance measures chosen can provide only indirect evidence, we used several indicators to investigate each hypothesis (Smith et al., 1989). After presenting the results of the analysis of our financial performance measures, we discussed how these performance measures support or fail to support the hypotheses. That analysis highlights how firms offshore differ from their industries with respect to these performance measures. This provides the readers with an understanding of the findings so that he or she can better evaluate the significance and validity of our arguments regarding the hypotheses.

5.3.3 Managerial implications

First, this research examined, and confirmed empirically, the quantitative scope effect of offshoring (i.e. the degree of offshoring) on long-term performance improvement. This study confirmed that organizations, which have a high percentage of offshoring functions, jobs and implementations, achieve higher performance.

Second, this study provides a unique Australian comparison for the selection of strategic drivers for offshoring by Australian small-to-medium sized organizations, which complements other studies on similar strategic drivers in a sample of organizations from the United States, the United Kingdom, the Netherlands, Germany and Spain. Furthermore, this research expanded our empirical understanding of the influence on offshoring strategic drivers by actually testing their effect on offshoring performance.

Managers should be aware of the different ways of using offshoring strategies and their impacts. The research confirmed that different performance effects are generated by different offshoring strategies. The research also showed that some Australian offshoring organizations has successfully used "offshoring as a strategy that moves beyond gaining cost advantages" (Roza, 2011,p.49) which was not confirmed in similar offshoring empirical studies in other countries (eg. Roza, 2011). Some Australian organizations successfully applied offshoring as an efficiency enhancing strategy to gain access to resources, for example, skilled labour or technologies. Some Australian organization with high level of offshoring experience, longer than five years, and to certain extent, we have been able to implement offshoring as well as part of an international growth strategy. Moreover, considering the advantages of offshoring operating scale, larger organizations are usually in a better position to achieve the largest cost and resource advantages. However, some smaller Australian organizations seem to have been able to leverage their capabilities and serve customers better using entrepreneurial strategies.

Third, no single offshoring governance mode achieves cost savings under all circumstances, nor will it always deliver satisfied expectations. This research study confirms that the captive offshoring governance modes produce better results than third party governance modes when the offshored tasks are categorised as high value-added tasks. This is because captive governance modes will be more efficient, are less risky, have lower control costs and have lower costs related due to the absence of opportunistic behaviour of the supplier. On the other hand, results confirmed that organizations should turn to third party governance modes to

offshore-standardized tasks with confidence, as the costs involved are lower than the costs of using a captive offshoring governance mode such as investing substantial financial resources and managerial capacities to establish foreign operations. In addition, third party offshoring provider can be more familiar with the local offshore environment that will reduce coordination and other hidden costs and increase the efficiency level allowing faster implementation and less offshoring implementation time to achieve the targeted outcomes. Accordingly, management should investigate the application of both models according to the nature of the tasks offshored to achieve their targeted outcomes within the allocated time frame.

Fourth, this research also shows that an organization's absorptive capacity significantly and positively moderates the relationship between the degree of offshoring of high value-added tasks and performance improvement. Thus, the organizations' capability to recognize, assimilate and commercialize the knowledge acquired through offshoring, will facilitate gaining better performance outcomes. This finding serves as a guide to managers of the importance of aligning their organizations' capabilities to gain performance effects of offshoring. Organizations with a high level of absorptive capacity are better able to integrate knowledge, capabilities and skills from the offshoring destinations into their domestic operations.

Fifth, offshoring is not a short-term quick fix approach. Our analysis shows that it takes some time usually longer than one year for the positive effects of offshoring to emerge. Therefore, specific attention needs to be paid to the longer-term performance effects of offshoring. These findings can serve as a vital guide for managers in their decision-making process.

Finally, this thesis can serve as roadmap for Australian Managers who are currently managing the offshoring process or considering offshoring. Following a different offshoring path may run the risk to overstretch the limited sources in their organizations or do not have the appropriate capabilities for a successful offshoring implementation.

5.3.4 Policy implications

The hot debates about offshoring in Australia tend to focus about the negative effect of offshoring on Australian jobs and performance improvement. The empirical studies that examine the economic effect of offshoring for Australia are scarce (Business Council of Australia, 2004).Most of the published articles are non-academics and have been based on lessons learnt from trial and error, small case studies rather than robust empirical inquiry (Hughes, 2007; Borman, 2006). They provide little insight into how offshoring can lead to better performance. This academic empirical research has implications for Australian policy and policy makers. It clearly shows that specific attention needs to be paid to the long-term effects of offshoring because the effects of offshoring on future performance improvement may take few years to evolve. Thus, it is important to address the trade-off between short-term and long-term effects, while addressing the offshoring topic. In the context of the financial crisis, it is important to investigate whether this context makes offshoring recession-proof or not, and especially how this was realised. In addition, our research findings show that experienced Australian offshoring organizations in the service industry have a high absorptive capacity. That absorptive capacity may facilitate the flow of knowledge, and enable those organizations to upgrade their knowledge, systems products and develop new ones. Consequently, Australia organizations could become successful service providers, and Australia become an offshoring destination for high value-added tasks.

5.4 Limitations and Implications for Further Research

As in any empirical study, limitations of this thesis provide important implications for future research. The research problem presented at the introduction provides a natural boundary for the research. While the empirical results could be interesting and has both academic and practical implications, caution should be exercised when generalising the findings beyond the scope of this thesis.

First, results were derived from a sample consisting of Australian-based organizations. It raises a possible concern that the findings might be country-specific. Studies with comparative samples from other countries should be tested to confirm the outcomes. Second, the target population for this thesis was narrowly defined to include a set of similar size organizations, which could affect the generalizability of the research findings. Third, our

sample consisted of smaller organizations with a size between 0-200 employees. Therefore, studies with a larger sample size should be used to test and extend the generalizability of our findings. Future research could investigate the implications of using a similar research model with larger-sized organizations to complement the picture of the relationship between the degree of offshoring and performance for the full range of organization sizes. The fourth limitation is that this thesis, as any other thesis, does not pretend to be exhaustive in terms of investigating the influence of all the variables on the degree of offshoring-performance relationship, and future research could explore how other factors could affect our research model, such as country factors. The fifth limitation is that the examined research studies in this thesis focused only on the relationship between the degree of offshoring and performance improvement for the offshoring organizations, but further research is warranted to examine this relationship for the vendor organizations. Many of these third party vendors are multinational organizations and have their own offshore affiliates. An in-depth analysis of the structure of these vendor organizations and their relationship with the outsourcing organizations is essential. Future research should further investigate the meaning of offshoring strategies for smaller and growing organization by applying entrepreneurship theory (Baumol, 1993; Fiet, 2001; Phan, 2004) and research on born global (Oviatt & McDougall, 1994), in order to provide comparison to our research findings about small-t- medium sized Australian organizations.

Sixth is the limitations associated to the performance measures used in our studies. We have shown previously thatother circumstances that are unrelated to offshoring or that foster offshoring can affect the accuracy of the empirical evidence revealed from the financial data investigated. We have mitigate this to the possible minimum by respectively using deviations from industry medians instead of the "raw" values of the financial data and by limiting the analysis to a few specific hypotheses that can be rationally assessed through the applicable performance measures chosen.

Seventh, a recent study by Ivarsson and Alvstam, (2013), showed that SMEs could also use other entry modes to secure full ownership control such as international business-network relations. It will be interesting to examine whether such mode can be applicable to the offshoring process and used by Australian SMEs who especially lack resources and offshore to unfamiliar destinations.

Finally, a trend currently emerging (e.g. Kinkel & Maloca, 2009) is back sourcing, which is the strategy of bringing the once-outsourced functions back into the organization, with the goal of rebuilding internal capabilities (e.g.Whitten & Leidner, 2006). This strategy can be implemented following an expired or terminated contract. Within the research area of new public management, we have also experienced new trends in discussion about "back rolling" (Hodge & Greve, 2010). That is, back sourcing of activities to be able to have control of processes. It is important to examine why organizations choose to bring back their offshored and/or outsourced activities, and the rationale behind such decision. Future research should examine the path from offshoring to back sourcing/re-shoring and the conditions under which organizations back sourcing or re-shoring effects on performance improvement. Moreover, Crowdsourcing has also recently appeared as a new offshoring initiative. Through the collaborative capabilities of the web, organizations and groups of people can work together anywhere on the world to achieve complex tasks. It will be interesting to examine the effect of this new offshoring initiative on performance.

———————

APPENDICES

Human Research Ethics Approval

Reference number: 5201000052(D)

Chief Investigator: Hassan Kharroubi

Date of initial approval: 09/02/2010

Questionnaire: Questions examined in the research studies I-IV

Questions asked to measure the degree of offshoring:

4. Company / business unit characteritics

Number of foreign markets in which firm has regular offshore operations	
Number of offshoring implementations	
Number of Suppliers leveraged	
Numbers of jobs offshored	
Number of functions offshored	

Questions asked to measure strategic drivers for offshoring:

7. For each offshoring function, please indicate the importance of the following strategic drivers in the decision to offshore this function.

	1 not important at all	2	3	4	5 very important
Enhancing efficiency through business process redesign	○	○	○	○	○
Labor cost savings	○	○	○	○	○
Other cost savings	○	○	○	○	○
Growth strategy	○	○	○	○	○
Enhancing system redundancy	○	○	○	○	○
Access to qualified personnel offshore	○	○	○	○	○
Domestic shortage of qualified personnel	○	○	○	○	○
Need to improve service levels	○	○	○	○	○
Competitive pressure (e.g. pressure on margins)	○	○	○	○	○
Accepted industry practice	○	○	○	○	○
Access to new markets for products and services	○	○	○	○	○
Part of global strategy	○	○	○	○	○
Increasing speed to market	○	○	○	○	○
Differentiation strategy	○	○	○	○	○
Exploit country-specific advantages	○	○	○	○	○
Exploit location-specific advantages	○	○	○	○	○

Other (please specify)

Questions asked to measure strategic drivers for offshoring - Continued:

2. For this implementation, what has been your organization or business unit's approach to offshoring?

○ A short-term approach to offshoring as a quick fix to a discrete business problem

○ Offshoring for the cost savings

○ Offshoring has been used as a competitive strategy

○ Offshoring has been embraced as an opportunity to reach cross borders and globalize services

○ Don't know/Not sure

○ If others, (please specify)

Questions asked to measure performance improvement (in addition to actual performance figures collected) pre-offshoring and post-offshoring announcement:

6. Financial Performance

1. Total Sales Revenue in last financial year
If you don't know the exact total sales figure, please select one of the follow choices:

- ◯ $500,000 or less
- ◯ Between $500,001 and $1,000,000
- ◯ $1,000,001 and $5,000,000
- ◯ $5,000,001 and $10,000,000
- ◯ $10,000,001 and $50,000,000
- ◯ $50,000,001 and $100,000,000
- ◯ $100,000,001 and $500,000,000
- ◯ $500,000,001 and $1,000,000,000
- ◯ $1,000,000,001 or more
- ◯ Don't know/Not sure
- ◯ If you know the exact sales figure, please provide it here

2. Total assets in last financial year
If you don't know the exact total assets figure, please select one of the following choices:

- ◯ $500,000 or less
- ◯ Between $500,001 and $1,000,000
- ◯ $1,000,001 and $5,000,000
- ◯ $5,000,001 and $10,000,000
- ◯ $10,000,001 and $50,000,000
- ◯ $50,000,001 and $100,000,000
- ◯ $100,000,001 and $500,000,000
- ◯ $500,000,001 and $1,000,000,000
- ◯ $1,000,000,001 or more
- ◯ Don't know/Not sure
- ◯ If you know the exact sales figure, please provide it here

3. Fixed assets in last financial year
If you don't know the exact fixed assets figure, please select one of the following choices:

- ( ) $500,000 or less
- ( ) Between $500,001 and $1,000,000
- ( ) $1,000,001 and $5,000,000
- ( ) $5,000,001 and $10,000,000
- ( ) $10,000,001 and $50,000,000
- ( ) $50,000,001 and $100,000,000
- ( ) $100,000,001 and $500,000,000
- ( ) $500,000,001 and $1,000,000,000
- ( ) $1,000,000,001 or more
- ( ) Don't know/Not sure
- ( ) If you know the exact sales figure,please provide it here

4. Research & Development expense (R&D) in last financial year
If you don't know the exact figure, please select one of the following choices:

- ( ) $500,000 or less
- ( ) Between $500,001 and $1,000,000
- ( ) $1,000,001 and $5,000,000
- ( ) $5,000,001 and $10,000,000
- ( ) $10,000,001 and $50,000,000
- ( ) $50,000,001 and $100,000,000
- ( ) $100,000,001 and $500,000,000
- ( ) $500,000,001 and $1,000,000,000
- ( ) $1,000,000,001 or more
- ( ) Don't know/Not sure
- ( ) If you know the exact sales figure,please provide it here

5. Net Profit After Tax (NPAT) in last financial year
If you don't know the exact (NPAT) figure, please select one of the following choices:

- ( ) $500,000 or less
- ( ) Between $500,001 and $1,000,000
- ( ) $1,000,001 and $5,000,000
- ( ) $5,000,001 and $10,000,000
- ( ) $10,000,001 and $50,000,000
- ( ) $50,000,001 and $100,000,000
- ( ) $100,000,001 and $500,000,000
- ( ) $500,000,001 and $1,000,000,000
- ( ) $1,000,000,001 or more
- ( ) Don't know/Not sure
- ( ) If you know the exact sales figure,please provide it here

6. How would you rate the performance of the company / business unit in the last five years?

	1 unsuccessful at all	2	3	4	5 very successful
How would you rate the performance of the company / business unit in the last five years?	( )	( )	( )	( )	( )

7. Growth of Sales and Shareholder value

	Nil	Between 0 and 10 percent	11 and 20 percent	21 and 30 percent	31 and 40 percent	41 and 50 percent	51 and 60 percent	61 and 70 percent	71 and 80 percent	81 and 90 percent	91 and 100 percent
Please indicate sales growth rates of the company / business unit in the last five years by ticking the appropriate category in each column	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
Please indicate the growth rate of the shareholder value of the company / business unit in the last five years by ticking the appropriate category in each column	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )

Questions asked to measure the offshoring governance modes:

1. For this implementation, please identify the initial service delivery mode(s) or arrangement selected offshore

☐ Captive(fully-owned subsidiary offshore undertakes the activity- all assets and staff are owned by the business)

☐ Outsourced to a joint venture with a local company at the offshore location (A client and local offshore supplier set up a joint venture vehicle)

☐ Outsourced to a joint venture with an international company at the offshore location (A client and international offshore supplier set up a joint venture vehicle)

☐ Outsourced to a local third party provider at the offshore location (direct dedicated centre operated by local third party)

☐ Outsourced to an international third party provider at the offshore location (direct dedicated centre operated by international third party)

☐ Outsourced to a domestic third party provider that in turn offshore part or all the work (indirect dedicated centre)

☐ Build Operate Transfer arrangements (The client and supplier set up an arrangement, through which the supplier is contracted to establish the operation and provide the service for a defined period. At a point where the centre and services are properly established, management and ownership is transferred to the client

☐ Don't know/Not sure

Questions asked to identify the degree of offshoring of high value-added tasks and standardized tasks:

1. For each Legal Services function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Legal services	Offshore location
For each function, select the particular tasks or subprocesses and the offshore location		
For each function, select the particular tasks or subprocesses and the offshore location		
For each function, select the particular tasks or subprocesses and the offshore location		
For each function, select the particular tasks or subprocesses and the offshore location		
For each function, select the particular tasks or subprocesses and the offshore location		

2. For each Human Resources function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Human resources	Offshore location	Human resources	Offshore location
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				

3. For each Marketing and Sales function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Marketing and Sales	Offshore location	Marketing and Sales	Offshore location
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				

4. For each Information Technology function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Information technology	Offshore location	Information technology	Offshore location
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				

5. For each Finance/ Accounting function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Finance / Accounting	Offshore location	Finance / Accounting	Offshore location	Finance / Accounting	Offshore location
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular						

6. For each Software Development function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Software development	Offshore location
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		

7. For each Call centre/ Customer contact function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Call centre / Customer contact	Offshore location
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		
For each function select the particular tasks or subprocesses and the offshore location		

8. For each Product Design function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Product design		Offshore location
For each function select the particular tasks or subprocesses and the offshore location			
For each function select the particular tasks or subprocesses and the offshore location			
For each function select the particular tasks or subprocesses and the offshore location			
For each function select the particular tasks or subprocesses and the offshore location			

9. For each Research and Development function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Research and Development		Offshore location
For each function select the particular tasks or subprocesses and the offshore location.			
For each function select the particular tasks or subprocesses and the offshore location.			
For each function select the particular tasks or subprocesses and the offshore location.			
For each function select the particular tasks or subprocesses and the offshore location.			

10. For each Engineering Services function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Eng. services	Offshore location	Eng. services	Offshore location	Eng. services	Offshore location
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						
For each function select the particular tasks or subprocesses and the offshore location						

11. For each Procurement function, which particular tasks or subprocesses have been offshored and what is/are the offshore location(s)?

	Procurement	Offshore location	Procurement	Offshore location
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				
For each function select the particular tasks or subprocesses and the offshore location				

12. Please indicate the level of administrative complexity involved in carrying out the tasks at the offshoring location.

	1 Very low	2	3	4	5 Very high
Level of administrative complexity	◯	◯	◯	◯	◯

Questions asked to measure absorptive capacity:

5. To what extent do you agree with the following statements?

	Strongly Disagree						Strongly Agree
The organisation is able to recognize new knowledge on the offshore location.	○	○	○	○	○	○	○
The value of new knowledge on the offshore location is rightly assessed by the organisation.	○	○	○	○	○	○	○
The organisation involves employees in the transfer of knowledge between the home and offshoring location.	○	○	○	○	○	○	○
The organisation implements systems and procedures to facilitate knowledge sharing between the home and offshoring location.	○	○	○	○	○	○	○
The organisation is able to adopt new knowledge from the offshore location.	○	○	○	○	○	○	○
The feasibility of adopting new knowledge from the offshore location is rightly assessed by the organisation .	○	○	○	○	○	○	○
In the organisation employees have the competence to absorb new knowledge from the offshore location.	○	○	○	○	○	○	○
The organisation is able profit from the adjusted firm processes due to offshoring.	○	○	○	○	○	○	○
The feasibility of commercializing new knowledge on the offshore location is rightly assessed by the organisation.	○	○	○	○	○	○	○
In the organisation employees are able to implement the new knowledge in new products/services.	○	○	○	○	○	○	○
The organisation is able to profit from new products/services developed (partly) by the offshoring location.	○	○	○	○	○	○	○

Other (please specify)

_____

Questions asked to determine the offshoring status of the organization:

1. Has your company/business unit been offshoring any of its business production/services?

○ Yes, currently offshoring [= Please answer survey branch 1]

○ In the process of moving activities offshore but no implementation completed yet [= Please answer survey branch 2]

○ Discussions about offshoring resulted in decision to offshore but no implementation started yet [= Please answer survey branch 2]

○ Discussions on offshoring are ongoing but no decision taken yet [= Please answer survey branch 2]

○ Discussions about offshoring resulted in decision not to offshore in the near future [= Please answer survey branch 3]

○ No discussion about offshoring yet [= Please answer survey branch 3]

Questions asked to measure organizational characteristics pre-offshoring and post-offshoring (i.e. international experience, function type, organization size, organization age and industry sector)

6. Total number of the company/busines unit's full-time equivalent employees in the home country.

○ 1-19 employees
○ 20-50 employees
○ 51-100 employees
○ 101-200 employees
○ 201-300 employees
○ 301-400 employees
○ 401-500 employees
○ more than 500 employees
○ Don't know

Note: labour cost and other costs were collected as actual figures and used to measure the cost variable.

Note: debt amount was also collected as an actual figure and used to measure the financial leverage variable.

8. Please provide the overall International experience of your company/business unit

○ Nil

○ Less than 1 year

○ Between 1 and 5 years

○ Between 6 and 10 years

○ Between 11 and 15 years

○ Between 16 and 25 years

○ Between 26 and 40 years

○ More than 40 years

○ Don't know/Not sure

3. Main Industry Sector(s).

- [ ] Food products
- [ ] Mining services
- [ ] Agriculture, Forestry and Fishing
- [ ] Manufacturing
- [ ] Electricity, Gas and Water Supply
- [ ] Construction
- [ ] Wholesale Trade
- [ ] Retail Trade
- [ ] Accommodation, Cafes and Restaurants
- [ ] Transport and Storage
- [ ] Communication Services
- [ ] Banking ,Financial services and Insurance
- [ ] Property and Business Services
- [ ] Government Administration and Defence
- [ ] Education
- [ ] Health care, life sciences and Community Services.
- [ ] Cultural and Recreational Services
- [ ] Infrastructure
- [ ] Technology
- [ ] Don't know/Not sure
- [ ] Other (please specify)

8. Which of the following functions or processes has your company/business unit offshored (including projects that have been terminated)?
please tick all that apply.

☐ Call centre / customer contact (e.g. inbound call centre, outbound call centre, web-based/e-mail based customer support, technical help desk services).

☐ Engineering services (e.g. engineering support, testing, simulating, CAD drawing, drafting & modeling, design automation, engineering analysis (e.g. finite element analysis),embedded systems development, tool design & manufacture, re-engineering, technical publications, quality assurance)

☐ Finance/accounting (e.g. credit management, cash management, accounts payable, accounts receivable, payment processing, lie/mortgage processing,credit card operations, securities back-office processing, fixed assets accounting, general ledger reconciliation, regulatory compliance check, credit analysis, equity analysis, financial planning, forecasting, performance analysis, risk management analysis)

☐ Human resources (e.g. payroll processing, benefit administration, recruitment & staffing support, workforce deployment, HR help desk).

☐ Information technology (e.g. testing, data entry and conversion, desktop systems support, data networks,internet/intranet and web hosting,secuity control, systems integration, server farm management).

☐ Legal services (e.g. legal document management, patent management, legal search, paralegal support (claims management))

☐ Marketing and Sales (e.g. graphic design, Powerpoint presentations, customer surveys, order entry, data mining, industry & company analysis, market analysis)

☐ Procurement (e.g. strategic sourcing, contract implementation, category management, local sourcing, buying support, purchase order, processing,supplier services, compliance reporting, spend analytics, e-business solutions)

☐ Product design (e.g. prototype design, systems design, application development)

☐ Research and development (e.g. research on new materials and processes, code development, development of new technologies)

☐ Software development (e.g. software architecture and design, application development and maintenance, database design and development)

☐ Don't know/Not sure

☐ Other (please specify)

7. Type of offshoring products / services.

○ Core service

○ Non-core service

○ Other (please describe)

9. Please provide the number of years an organisation has been in existence?

[   ]

REFERENCES

Abernathy, W.J., and Utterback, J.M. (1978). Patterns of industrial innovation. *Technology Review,* 80, 41-47.

Agarwal, S. (1994). Socio-cultural distance and the choice of joint ventures: A contingency perspective. *Journal of International Marketing*, 2 (2), 63–80.

Agarwal, S., and Ramaswami, S. (1992). Choice of foreign market entry mode: Effect of ownership, location and internalisation factors. *Journal of International Business Studies*, 23(1), 1-27.

Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52, 27–58.

Ajzen, I., and Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice Hall.

Aksin, O. Z., and Masini, A. (2008). Effective strategies for internal outsourcing and offshoring of business services: An empirical investigation. *Journal of Operations Management,* 26(2), 239–256.

Alexander, M., and Young, D. (1996). Strategic outsourcing. *Long Range Planning*, 29(1), 116-119.

Allen, T.J., and Hauptman, O., (1994). The Influence of Communication Technologies on Organizational Structure in Research and Development, in Allen, T.J. and Scott-Morton, M.S., Information Technology and the Corporation of the 1990s, New York: *Oxford University Press*, 475-483.

Allen, T.J., and Hauptman, O., (1994). The Influence of Communication Technologies on Organizational Structure in Research and Development, in Allen, T.J. and Scott-Morton, M.S., Information Technology and the Corporation of the 1990s, New York: *Oxford University Press*, 475-483.

Allison, P. (1999). Logistic regression using the SAS system: Theory and application. SAS Institute, *Cary, North Carolina- based developer of analytics software* (Cary, NC).

Alwin, D., and Hauser, R. (1975). The decomposition of effects in path analysis. *American Sociological Review,* 40(1), 37-47.

Amit, R., and Livnat, J. (1988). Diversification strategies, business cycles and economic performance. *Strategic Management Journal*, 9 (2), 99–110.

Amit, R., and Schoemaker, P. (1993). Strategic assets and organizational rent. Strategic *Management Journal*, 14(1), 33–46.

Anderson, E., and Gatignon, H. (1986). Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies,* 17(3), 1–26.

Ang, S., and Cummings, L. L. (1997). "Strategic Response to Institutional Influences on Information Systems Outsourcing". *Organization Science* 8(3), 235-256.

ANOVA for diffusions and Ito processes. (2007). *Annual of Statistics, forthcoming*, 34(4).

Argyres, N., and Bigelow, L. (2010). Innovation, modularity, and vertical disintegration: Evidence from the early U.S. auto industry. *Organization Science,* 4, 842-853.

Argyres, N., and Mayer, K. J. (2007). Contract design as a firm capability: An integration of learning and transaction cost perspectives. *Academy of Management Review,* 32(4), 1060-1077.

Argyris, C., and Scho¨n, D. A. (1978). Organizational Learning: A Theory of Action Perspective. *Addison-Wesley, Reading, MA.*

Aron, R., and Singh, J. V. (2005). Getting Offshoring Right. *Harvard Business Review*, 83(12), 135-140.

Aron, R., Clemons, E.K., and Reddi, S. (2005). Just right outsourcing: Understanding and managing risk. *Journal of Management Information Systems*, 22(2), 37-55.

Arthurs, J. D., and Busenitz, L. W. (2006). Dynamic capabilities and venture performance: The effects of venture capitalists. *Journal of Business Venturing*, 21(2), 195–215.

Augier, M., & Teece, D. J. (2007). Dynamic capabilities and multinational enterprise: Penrosian insights and omissions. Management International Review, 47: 175–192.

Aulakh, P.S., Kotabe, M., and Teegen, H. (2000). Export Strategies and Performance of Organisations from Emerging Economies: Evidence from Brazil, Chile, and Mexico. *Academy of Management Journal*, 43(3), 342-361.

Autio, E., Sapienza, H. J., and Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5), 909–924.

Baden-Fuller, C.W., and Stopford, J. (1994). Creating corporate entrepreneurship. *Strategic Management Journal*, 15, 521-536.

Bagozzi, R. P., and Fornell, C. (1982). Theoretical Concepts, Measurement, and Meaning. *A Second Generation of Multivariate Analysis,* 24-38.

Bardhan, A. D. (2006). Managing globalization of R&D: Organizing for offshoring innovation. *Human System Management*, 25(2), 103–114.

Bardhan, A., and Kroll, C. A. (2003). The new wave of outsourcing. In Fisher Centre for Real Estate and Urban Economics Research, Report Series No. 1103. *Berkeley: University of California.*

Bardhan, P. (2006). Awakening Giants, Feet of Clay: A Comparative Assessment of the Rise of China and India, *Journal of South Asian Development*, 1(1): 1-17.

Barkema, H.G. and F. Vermeulen. 1998. International expansion through start up or acquisition: A learning perspective. *The Academy of Management Journal*, 41(1), 7-26.

Barkema, H. G., Shenkar, O., Vermeulen, F., & Bell, J. H. J. (1997). Working abroad, working with others: How firms learn to operate international joint ventures. *Academy of Management Journal, 40*(2), 426–442.

Barker, V., and Duhaime, I. (1997). Strategic change in the turnaround process: theory and empirical evidence. *Strategic Management Journal*, 18(1), 13-38.

Barney, J. (1991). Organisation resources and sustained competitive advantage. *Journal of Management,* 17(1), 99–120.

Baron, R. M., and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology,* 51(6), 1173-1182.

Barrett, J. (2007). Numbers point to India. *The Australian Financial Review*, 60–6.

Barringer, B. R., and Greening, D. W. (1998). Small business growth through geographic expansion: A comparative case study. *Journal of Business Venturing*, 13, 467–492.

Bartell, S. M. (1998). Information systems outsourcing: a literature review and agenda for research. *International Journal of Organization Theory and Behaviour*, 1, 17−44.

Baumol, W. J. (1993). Formal entrepreneurship theory in economics − Existence and bounds. *Journal of Business Venturing*, 8(3), 197–210.

Beasley, M., Bradford, M., and Dehning, B. (2009). The value effect of strategic intent on firms engaged in information systems outsourcing. *International Journal of Accounting Information Systems*, 79–96.

Belsley, D. A., Kuh, E., and Welsch, R. E. (1980). Regression diagnostics: identifying influential data and sources of collinearity. *New York: JohnWiley and Sons.*

Benito, G.R.G., and Welch, L. (1994). 'Foreign Market Servicing: Beyond Choice of Entry Mode'. *Journal of International Marketing*, 2 (2), 7-27.

Benner, M.J., and Tushman, M.L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of Management Journal,* 28(2), 238-56.

Berry, H. (2006). Shareholder Valuation of Foreign Investment and Expansion. *Strategic Management Journal,* 27, 1123–1140.

Bertrand, O. (2011). What goes around, comes around: Effects of offshore outsourcing on the export performance of firms. *Journal of International Business Studies*, 42**,** 334–344, doi:10.1057/jibs.2010.26.

Bettis, R.A., Brandley, S.P., and Hamel, G. (1992). Outsourcing and industrial decline. *Academy of Management Executive*, 6(1), 7-22.

Bhalla, A., M. S. Sodhi, and B. G. Son. (2008). Is more IT offshoring better? An exploratory study of western companies offshoring to South East Asia. *Journal of Operations Management*, 26(2), 322-35.

Biró, M., and Fehér, P. (2005).Forces Affecting Offshore Software Development. *Corvinus University of Budapest, Department of Information Systems.*

Boateng, A., and Glaister, K. W. (2002). Performance of international joint ventures: Evidence for West Africa. *International Business Review,* 11(5), 523–541.

Bock, S. (2008). Supporting offshoring and nearshoring decisions for mass customization manufacturing processes. *European Journal of Operational Research,* 184, 490–508.

Borman, M. (2006). Applying multiple perspectives to the BPO decision: A case study of call.

Brouthers, K. D., and Hennart, J.-F. (2007). Boundaries of the organisation: Insights from international entry mode research. *Journal of Management*, 33(3), 395–425.

Brown, R.M.; Gatian, A.W.; and Hicks, J.O. (1995). Strategic information systems and financial performance. *Journal of Management Information Systems,* 4, 215—248.

Brynjolfsson, E. (1990). Technology and the New Managerial Work. (MIT) *Sloan School of Management-Centre for Coordination Science Working Paper.*

Brynjolfsson, E., Malone, T., Gurbaxani, V., and Kambil, A. (1994). Does Information Technology Lead to Smaller Organisations?. *Management Science*, 40(12), 1628-1644.

Buckley, P.J., and Casson, M. (1976). The future of the multinational enterprise. *London: Macmillan.*

Buckley, R. (1989). Precision in environmental effect prediction Resource and Environmental Studies. *Centre for Resource and Environmental Studies, Australian National University, Canberra.*

Bunyaratavej, K., and Hahn, E.D. (2010).Services cultural alignment in offshoring: The effect of cultural dimensions on offshoring location choices. *Journal of Operations Management,* 28(3), 186-193.

Bunyaratavej, K., Doh, J.P., Hahn, E.D., Lewin, A.Y., and Massini, S. (2011). Conceptual Issues in Services Offshoring Research: A Multi-disciplinary Review. *Group and Organization Management*, 36(1), 70- 102.

Bunyaratavej, K., Hahn, E. D., and Doh, J. P. (2007). International offshoring of services: A parity study. *Journal of International Management*, 13(1), 7–21.

Bunyaratavej, K., Hahn, E. D., and Doh, J. P. (2008). Multinational investment and host country development: Location efficiencies for services offshoring. *Journal of World Business*, 43, 227–242.

Camp, M., and Sexton, D.L. Strategic entrepreneurship: Creating a new mindset. *Oxford: Blackwell Publishing.*

Cantwell, J. (2009). Location and the multinational enterprise. *Journal of International* Business Studies, 40(1), 35–41.

Cantwell, J. A., and Mudambi, R. (2005). MNE competence creating subsidiary mandates. *Strategic Management Journal*, 26(12): 1109–1128.

Cantwell, J., Dunning, J. H., and Lundan, S. M. (2010). An evolutionary approach to understanding international business activity: the coevolution of MNEs and the institutional environment. *Journal of International Business Studies*, 41, 567–586.

Cantwell, J.A., and Santangelo, G.D. (1999). The frontiers of international technology networks: sourcing abroad the most highly tacit capabilities. *Information Economics and Policy*, 11, 101–123.

Carmel, E., and Nicholson, B. (2005). Small firms and offshore software outsourcing: High transaction costs and their mitigation. *Journal of Global Information Management*, 13, 33–54.

Carmel, E., and Tjia. (2005). Offshoring Information Technology. Cambridge University Press centres in Australia. *Journal of Information Technology, 21*, 99–115.

Cha, H., Pingry, D.E., and Thatcher, M.E. (2008). Managing the knowledge supply chain: an organizational learning model of information technology offshore outsourcing. *Management Information Systems Quarterly*, 32 (2), 281-306.

Chalos, P., and Sung, J. (1998). Outsourcing decision and managerial incentives. *Decision Science*, 29, 901–919.

Chan, Y.E., Huff, S.L., Barclay, D.W., and Copeland, D.G. (1997).Business Strategic Orientation, Information Systems Strategic Orientation, and Strategic Alignment. *Information Systems Research*, 8 (2), 125-150.

Chandler, A. (1962). Strategy and structure: chapters in the history of the American enterprise. *The Massachusetts Institute of Technology (MIT), Press, Boston*.

Chandler, A. D. (1990). Scale and Scope: The Dynamics of Industrial Capitalism. *Harvard University Press: Cambridge*.

Chang, S. J., & Rosenzweig, P. (2001). The choice of entry mode in sequential foreign direct investment. *Strategic Management Journal*, 22: 747–776.

Chen YS, Lin MJJ, Chang CH. (2009). The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets. Industrial Marketing Management 38: 152–158.

Chesbrough, H. W., and Teece, D.J. (2002). Organizing for innovation: When is virtual virtuous?. *Harvard Business Review*, 80(8), 127-130.

Chiao, Y., and Li, P.Y. (2009). Are more exports better for a firm performance? The moderating effect of FDI . *European Journal of International Management*, 3 (3) , 286–301.

Chin, W.W. (1999). Structural Equation Modelling Analysis with Small Samples Using Partial Least Squares. *Statistical Strategies for Small Sample Research, Sage Publications,* 307-341.

Chiquoine, B., Hjalmarsson, E. (2009). Jackknifing Stock Return Predictions. *Journal of Empirical Finance* 16, 793–803.

Christensen, C. M., and Bower, J.L. (1996). Customer power, strategic investment, and the failure of leading organisations. *Strategic Management Journal*, 17(3), 197-218.

Coase, R. H. (1937). The nature of the organisation. Economica, 4(16), 386–405.

Cohen, J. (1978). Statistical Power Analysis for the Behaviorial Sciences. Academic Press, New York

Cohen, S., and Edwards, J. R. (1989). Personality characteristics as moderators of the relationship between stress and disorder. *Advances in the investigation of psychological stress,* 235–283.

Cohen, W. M., and Levinthal, D.A. (1990). Absorptive-capacity - A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-52.

Cohen, W.M., and Levinthal, D.A. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35, 128-152.

Conner, K., and Prahalad, C.K. (1996). A resource-based theory of the organisation: Knowledge versus opportunism. *Organization Science*, 7(5), 477-501.

Contractor, F. J., Kumar, V., and Kundu, S. K. (2007). Nature of the relationship between international expansion and performance: The case of emerging market organisations. *Journal of World Business,* 42(4), 401–417.

Contractor, F.J., Kumar, V., Kundu, S., and Pedersen, T. (2010). Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions. *Journal of Management Studies*, 47, 1417–1433.

Cooke, F. L., Shen, J., and McBride, A. (2005). Using HR outsourcing and shared services as HR strategies: a review of literature and assessment of implications. *Human Resource Management,* 44, 413−432.

Coucke, K., and Sleuwaegen, L. (2008). Offshoring as a survival strategy: Evidence from manufacturing organisations in Belgium. *Journal of International Business Studies*, 39, 1261–1277.

Couto, V., Mani, M., Lewin, A. Y., and Peeters, C. (2006). The globalization of white collar work – Facts and fallout of next generation offshoring. *Booz Allen Hamilton Viewpoint.*

Couto, V., Mani, M., Sehgal, V., Lewin, A.Y., Manning, S., and Russell, J.W. (2008). Offshoring 2.0: Contracting knowledge and innovation to expand global capabilities. *Service Provider Survey Report Booz and Co. and Duke University.*

Cyert, R. M., March, J. G. (1963). A Behavioural Theory of the Organisation. *Englewood Cliffs, NJ: Prentice-Hall.*

D'Agostino, L. M., Laursen, K., and Santangelo, G.(2012). The effect of R&D offshoring on the home knowledge production of the Organisation for Economic Co-operation and Development (OECD) investing regions. *Journal of Economic Geography,* 1(31), doi:10.1093/jeg/lbs012.

D'Aveni, R., and Ravenscraft, D. (1994). Economies of integration versus bureaucracy costs: Does vertical integration improve performance?. *Academy of Management Journal*, 37 (5), 1167–1206.

Damanpour, F. (1991). Organizational innovation - A meta analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-90.

Damanpour, F. (1992). Organizational size and innovation. *Organization Studies,* 13(3), 375-402.

Damanpour, F., Szabat, K.A., and Evan, W.M. (1989). The relationship between types of innovation and organizational performance. *Journal of Management Studies*, 26(6), 587-601.

Davidsson, P. (1989). Entrepreneurship – and after – A study of growth willingness in small organisations. *Journal of Business Venturing*, 4(3), 211–226.

Davies, S. (1979). The Diffusion of Process Innovations. *Cambridge: Cambridge University Press.*

Davis, G. F., and Marquis, C. (2005). Prospects for theory about organizations in the early 21st century: Institutional fields and mechanisms. *Organization Science*, 16(4), 332–343.

Demirbag, M., and Mirza, H. (2000). Factors affecting international joint venture success: an empirical analysis of foreign–local partner relationships and performance in joint ventures in Turkey. *International Business Review*, 9(1), 1-35.

Demirbag, M., and Glaister, K.W. (2010).Factors Determining Offshore Location Choice for R&D Projects: A Comparative Study of Developed and Emerging Regions. *Journal of Management Studies*, 47(8), 1534-1560.

Dess, G. G., and Davis, P. S. (1984). 'Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance', *Academy of Management Journal,* 27(3), 467-488.

Dess, G.G., Rasheed, A., McLaughlin, K., and Priem, R. (1995). The new corporate architecture. *Academy of Management Executive*, 9(3), 7–20.

Di Gregorio, D., Musteen, M., and Thomas, D. (2009). Offshore outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies,* 40, 969-988.

Dibbern, J., Goles, T., Hirschheim, R. A., and Jayatilaka, B. (2004). Information Systems Outsourcing: A Survey and Analysis of the Literature. *The data base for Advances in Information Systems*, 35(4), 6-102.

Dibbern, J., Winkler, J. and Heinzl, A. (2008). Explaining variations in client extra costs between software projects offshored to India. *Management Information Systems Quarterly*, 32 (2), 333-66.

Dobni, C. B. (2010). The Relationship between an innovation orientation and Competitive Strategy. *International Journal of Innovation Management*, 14(2), 331-357.

Dodgson, M., (1991). Technology learning, technology strategy and competitive pressures. British Journal of Management 2, 132–149.

Dodgson, M., (1993). Organizational learning: a review of some literatures. Organization Studies 14, 375–394.

Doh, J. P. (2005). Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies*, 42(3), 695–704.

Doh, J.P., Bunyaratavej, K., and Hahn, E. (2009). Separable but not equal: The location determinants of discrete services offshoring activities. *Journal of International Business* Studies. 40, 926-943.

Dosi, G. (1982). Technological paradigms and technological trajectories. *Research Policy*, 11, 147-62.

Dossani, R., and Kenney, M. (2003).Went for Cost, Stayed for Quality?: Moving the Back Office to India. *Berkeley Roundtable on the International Economy, UC Berkeley.*

Dossani, R., Kenney, M. (2007). The next wave of globalization: Relocating service provision to India. *World Development*. 35(5), 772-791.

Drucker, P. F. (1959). Landmarks of tomorrow. *New York: Harper and Bros.*

Dunn, K., Kohlbeck, M.J., and Magilke, M.J. (2009). The Association of Future Profitability, Operating Cash Flows, and Market Assessments with Offshoring Arrangements of Technology Jobs. *Journal of Information Systems*, 23(2), 25-47.

Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies,* 11(1), 9–31.

Duo, Y., and Sarkis, J. (2010). A joint location and outsourcing sustainability analysis for a strategic offshoring decision. *International Journal of Production Research*, 48(2), 567–592.

Dutta, S., and Reichelstein, S. (2005). Accrual accounting for performance evaluation, *Review of Accounting Studies*, forthcoming.

Edwards, J.R., and Lambert, L.S. (2007). Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis. *Psychological Methods*, 12, 1–22

Edwards, K., and Gordon, T. (1984). Characterization of innovations introduced on the U.S. market in 1982. Presented to the Futures Group and U.S. *Small Business Administration's Conference, Washington, D.C.*

Elango, B., and Sambharya, R.B. (2004). The influence of industry structure on the entry mode choice of overseas entrants in manufacturing industries. *Journal of International Management*, 10, 107–124

Ellis, A., and Carlton, H. (1965). The Transfer of Learning. New York: MacMillan.

Ellram, L., Tate, W., and Billington, C. (2008). Offshore outsourcing of professional services: A transaction cost economics perspective. *Journal of Operations Management*, 26(2), 148–163.

Erber, G., and Sayed-Ahmed, A. (2005). Offshore outsourcing: A global shift in the present IT industry. *Intereconomics,* 40, 100–112.

Ertugrul, M., Sezer, Ö., and Sirmans, C.F. (2006). Financial leverage, CEO compensation and corporate hedging: Evidence from real estate investment trusts. *Working Paper, University of Cambridge, UK.*

Ettlie, J.E., and Reza, E.R. (1992). Organizational integration and process innovation. *Academy of Management Journal*, 35(4), 795-827.

Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies,* 42(3), 675–683.

Farrell, D. (2003). Offshoring: Is it a win-win game? (pp. 1–15). San Francisco: McKinsey Global Institute.

Feldman, M.S., (2000). Organizational routines as a source of continuous change. Organization Science 11, 611–629.

Fiet, J. O. (2001). The pedagogical side of entrepreneurship theory. *Journal of Business Venturing,* 16(2), 101–117.

Fifarek, B. J., and Veloso, F. M. (2010). Offshoring and the global geography of innovation. *Journal of Economic Geography*, 10(4), 559–578.

Fifarek, B.J., Veloso, F.M. and Davidson, C.I. (2008). Offshoring Technology Innovation: A Case Study of Rare-Earth Technology. *Journal of Operations Management*, 26, 222–38.

Fiol, C. M., and Lyles, M.A. (1985). Organizational learning. *Academy of Management Review,* 10(4), 803–813.

Fisher, T. F., and Ranasinghe, M. (2001). Culture and foreign companies' Choice of entry mode: The case of the Singapore building and construction industry. *Construction Management and Economics, 19*(4), 343–353.

Fladmoe, K.L., and Jacque, L. L. (1995). Control modes in international service operations: the propensity to franchise. *Management Science*, 41 (7), 1238–49.

Fornell, C., and Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39–50.

Foss, N. J., and Ishikawa, I. (2007). Towards a dynamic resource-based view: insights from Austrian capital and entrepreneurship theory. *Organization Studies*, 28, 749–72.

Franko, L. G. (1989). Global corporate competition: Who's winning, who's losing, and the R&D factor as one reason why. *Strategic Management Journal*, 10, 449-474.

Frost and Sullivan. (2007). *Global Contract Research Organization (CRO)* Spending Trends.

Galloway, R.L., and Whyte, G.A. (1989). The information systems function as a service operation. *International Journal of Operations and Production Management*, 9(4).

Gatignon, H., and Anderson, E. (1988). The multinational corporation's degree of control over foreign subsidiaries: An empirical test of a transaction cost explanation. *Journal of Law, Economics and Organization, 4*(2), 305–336.

Gefen, D., and Straub, D. (2000). The Relative Importance of Perceived Ease-of-Use in IS Adoption: A Study of e-Commerce Adoption. *Journal of the Association for Information Systems*, 8(1), 1-30.

Gereffi, G., Humphrey, J., and Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12, 78–104.

Geringer, J.M., Tallman, S., and Olsen, D.M. (2000). 'Product and international diversification among Japanese multinational firms'. *Strategic Management Journal,* 21, 51-80.

Geyskens, I., Steenkamp, M., and Kumar, N. (2006). Make, buy, or ally: a transaction cost theory meta-analysis. *Academy of Management Journal*, 49, 519–543.

Gilley, K., and Rasheed, A. (2000). Making more by doing less: An analysis of outsourcing and its effects on firm performance. *Journal of Management*, 26(4), 763–790.

Ginsberg, A. (1988) Measuring and modelling changes in strategy: Theoretical foundations and empirical directions. *Strategic Management Journal,* 9, 559-575.

Glaister, K.W., and Buckley, P.J. (1996). Strategic motives for international alliance formation. *Journal of Management Studies*, 33 (3), 301–332.

Gloy, B.A., and Baker, T.G. (2002). The importance of financial leverage and risk aversion in risk-management strategy selection. *American Journal of Agricultural Economics, 84(4), 1130-1143.*

Gooris, J., and Peeters, C. (2012). Home-Host Country Distance and Governance Choices in Service Offshoring. *Ecore discussion paper.*

Gopal, A., and Sivaramakrishnan, K. (2008). "On selecting appropriate contract types for offshore software projects: the case of fixed price versus time and materials contracts", *Information Systems Research*, 19 (2), 202-20.

Gorte, M., Taube, F., and Florian, A. (2007). When Outsourcing is not an Option: International relocation of Investment Bank's Research. *Journal of International Management*, 13(1), 57-77.

Gottfredson, M., Puryear, R., and Phillips, S. (2005). Strategic sourcing: From periphery to the core. *Harvard Business Review February*, 132–9.

Grant, R. (2005).Offshoring jobs: US and Australian debates. *Parliament of Australia, Canberra.*

Grant, R. M., Azar, J., and Howard, T. (1988). "Diversity, Diversification, and Profitability among British Manufacturing Companies, 1972-84''. *Academy of Management Journal,* 31(4), 771-801.

Gregorio, D.D., Musteen, M., and Thomas, D.E. (2009). Offshore outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies*, 40**,** 969–988, doi:10.1057/jibs.2008.90.

Griffith, D.A., Harmancioglu, N., and Droge, C . (2009). Governance decisions for the offshore outsourcing of new product development in technology intensive markets. *Journal of World Business,* 44(3), 217-224.

Grimpe, C., and Kaiser, U. (2010). Balancing internal and external knowledge acquisition: the gains and pains from R&D outsourcing. *Journal of Management Studies*, 47(8), 1483-1509.

Grossman, S., and Hart, O. (1986). The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration. *Journal of Political Economy*, 94, 691-719.

Grossman, G.M., and Hansberg, E.R. (2006). Trading Tasks: A Simple Theory of Offshoring. *Nonprofit economic research organization* (*NBER).*

Grote, M., and Florian, A. (2007). When Outsourcing is not an Option: International relocation of Investment Bank's Research. *Journal of International Management*, 13(1), 57-77.

Grùnhaug, K. and Kvitastein, O. (1993), Distributional involvement in international strategic business units. *International Business Review*, 2(1), 1-14.

Gujarati, D.N. (2003). Basic econometerics (4th ed.). *New York: McGraw-Hill.*

Hahn, E., Doh, J.P., and Bunyaratavej, K.(2009).The evolution of risk in information systems offshoring: The impact of home country risk, firm learning, and competitive dynamics. *Management Information Systems Quarterly,* 33(3), 597-616.

Hahn, E.D., Doh, J.P., and Bunyaratavej, K. (2009). The evolution of risk in information systems offshoring: The effect of home country risk, firm learning, and competitive dynamics. *Management Information Systems Quarterly,* 33(3), 597-616.

Hair, J., Rolph, A., and Tatham, R. (1987), Multivariate Data Analysis, 2nd ed., Macmillan, New York, NY.

Haiyang, C., and Hu, M. Y. (2002). An analysis of determinants of entry mode and its effect on performance. *International Business Review,* 11(2), 193–210.

Hamel, G. (2002). Leading the Revolution. *New York: Plume.*

Hamel, G. (2006). The Why, What and How of Innovation Management. *Harvard Business Review*, 72–84.

Hamilton, B. A. (2004). Outsourcing Globally: Trend and implications of offshoring for Australia.

Hammer, M. (2004). Deep change: How operational innovation can transform your Company. *Harvard Business Review*, April, 84–96.

Han, J. K., Narmwoon, K., and Rajendra, K. S. (1998). Market Orientation and Organizational Performance: Is Innovation a Missing Link? *Journal of Marketing*, 62, 30-45.

Hannan, M.T., and Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review*, 49(2), 149–164.

Hargadon, A. B. (2002). Brokering knowledge: Linking learning and innovation. *Research in Organizational Behaviour,* 24, 41-85.

Harland, L., and Harrison, W. (2005). Leadership Behaviors and Subordinate Resilience. *Journal of Leadership and Organizational Studies* 11(2), 2-15.

Haveman, H.A. (1993). Follow the leader: Mimetic isomorphism and entry into new markets. *Administrative Science Quarterly*, 38 (4), 593–627.

Hauptman, O., 1986. Influence of Task Type on the Relation between Communication and Performance: The Case of Software Development, R&D Management, 16, 2, 127-139.

Hauptman, O., 1986. Influence of Task Type on the Relation between Communication and Performance: The Case of Software Development, R&D Management, 16, 2, 127-139.

Hayes, A. F., and Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioural Research*, 45(4), 627-660.

He, Z.L., and Wong, P.K. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science* 15, 481–494.

Heijmen, T., Lewin, A. Y., Manning, S., Perm-Ajchariyawong, N., and Russell, J. W. (2009). 2007–2008 ORN survey report: Offshoring reaches the C-suite. *Raleigh, NC: The Conference Board and Duke University, Research Report 1445-09-RR.*

Heikkilä, J., and Cordon, C. (2002). Outsourcing: a core or non-core strategic management decision? *Strategic Change*, 11(4), 183-193.

Henderson, J., and Venkatraman, N. (1992). Strategic alignment: a model for organizational transformation through information technology, Transforming Organizations. *New York: Oxford University Press.*

Henderson, R., and Cockburn, I. (1994). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Journal*, 15, 63–84.

Hennart, J. (1994). The comparative institutional theory of the firm: some implications for corporate strategy. *Journal of Management Studies*, 31 (2), 193-207.

Hirschheim, R., Loebbecke, C., Newman, M., and Valor, J. (2005). Offshoring and its Implications for the Information Systems Discipline. *International Conference on Computer and Information Science (ICIS) 2005 Proceedings.*

Hitt, M. A., Hoskisson, R.E., and Ireland, R.D. (1994). A midrange theory of the interactive effects of international and product diversification and product diversification on innovation and performance. *Journal of Management*, 20(2), 297-326.

Hitt, M.A., Dacin, M.T., Tyler, B.B., and Park, D. (1997). Understanding the Differences in Korean and U.S. Executives' Strategic Orientations. *Strategic Management Journal,* 18, 159–167.

Hodge, G., and Greve, C. (2010), Public-Private Partnerships: Governance Scheme or Language Game? Australian *Journal of Public Administration*, 69(1), S8-S22.

Hoffman, E., McCabe, K., and Smith, V. (1998). Behavioral foundations of reciprocity: experimental economics and evolutionary psychology. *Economic Inquiry* 36, 335–352.

Hofer, C. (1980). Turnaround strategies. *Journal of Business Strategy*, 1, 19–31.

Hofer, C. and D. Schendel (1978). *Strategy Formulation: Analytical Concepts.* West Publishing, St Paul, MN.

Holcomb, T. R., and Hitt, M. A. (2007). Toward a model of strategic outsourcing. *Journal of Operations Management,* 25(2), 464–481.

Holmbeck, N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: examples from the child–clinical and paediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65 (1997), 599–610.

Howe, J. (2006). The Rise of Crowdsourcing. *http://www.wired.com/wired/archive/14.06/crowds.html*

Hughes, A. (2007). Credit corp wary of doing offshore jobs. *The Australian Financial Review*, 23.

Hult, G. T. M., Hurley, R.F., and Knight, G.A. (2004). Innovativeness: Its antecedents and effect on business performance. *Industrial Marketing Management*, 33, 429-38.

Hurley, R. F., and Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 68(2), 42-54.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Offshoring governance modes for offshoring activities: A comparison of US and German organisations. *International Business Review*, 20, 291-313.

Hutzschenreuter, T., Lewin, A.Y., and Dresel, S. (2011). Time to success in Offshoring Business Processes. *Management International Review*, 51, 65-92.

Hutzschenreuter, T., Pedersen, T., and Volberda, H. W. (2007). The role of path dependency and managerial intentionality: A perspective on international business research. *Journal of International Business Studies*, 38(7), 1055–1068.

 Icek, A., and Fishbein, M. (1980). Understanding attitudes and predicting social behavior. *Englewood Cliffs.*

Iconaru, C. (2013). BRAND. Broad Research in Accounting, Negotiation, and Distribution, ISSN 2067-8177, 4(1).

Insinga, R.C. and Werle, M.J. (2000). Linking outsourcing to business strategy. *Academy of Management Executive*, 14(4), 58-70.

Ivarsson, I. and Alvstam, C.G. (2013). Embedded internationalization: How small-and medium-sized Swedish companies use business-network relations with Western customers to

establish own manufacturing in China. *Asian Business & Management*, 12(5), 565-589.Jabbour, L. (2008). Slicing the Value Chain Internationally: Empirical Evidence on the Offshoring Strategy by French Organisations. University of Nottingham Re-search Paper Series.

Jabbour, L. (2010).Offshoring and Firm Performance: Evidence from French Manufacturing Industry. *The World Economy*, 33(3), 507-524.

Jacobides, M.G., and Winter, S.G. (2006). The co-evolution of capabilities and transaction costs: Explaining the institutional structure of production. S*trategic Management Journal,* 26(5), 395-413.

Jahns, A., Hartmann, E., and Bals, L. (2006). Offshoring: dimensions and diffusion of a new business concept. *Journal of Purchasing and Supply Management*, 12(4), 218–231.

James, L. R., and Brett, J. M. (1984). Mediators, moderators, and tests for mediation. *Journal of Applied Psychology*, 69, 307–321.

Janis, I. L., and Mann, L. (1977). Decision Making: A Psychological Analysis of Conflict, Choice and Commitment. New York: Free Press.

Jansen, J. J. P., Van den Bosch, F. A. J., and Volberda, H.W. (2006). Exploratory innovation exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, 52(11), 1661-74.

Jensen, P. D. Ø., and Pedersen, T. (2012). Offshoring and international competitiveness: antecedents of offshoring advanced tasks. *Academy of Marketing Science*, 40, 313–328.

Jensen, P. D. Ø., Kirkegaard, J. F., and Laugesen, N.S. (2006).Offshoring in Europe— Evidence of a Two-Way Street from Denmark. *Institute for International Economics*, working paper series, WP 06-3.

Jensen, PDØ. (2009). A learning perspective on advanced services offshoring. *Journal of International Management*, 15, 181-193.

Johanson, J., & Vahlne, J. E. (1990). The mechanisms of internationalization. *International Management Review*, 7(4): 11–24.

Li, J. (1995). Foreign entry and survival: Effects of strategic choices on performance in international markets. *Strategic Management Journal,* 16(5), 333–351.

Jusoh, R., and Parnell, J. A. (2008). Competitive strategy and performance measurement in the Malaysian context: An exploratory study. *Management Decision*, 46, 5-31.

Kaka, N. (2003). A choice of models. *McKinsey Quarterly*, 4, 46–47.

Kakabadse, A., and Kakabadse, N. (2005). Outsourcing: current and future trends. *Thunderbird International Business Review*, 47, 183–204.

Kakabadse, A., and Kakabadse, N. (2002). Making 'modernising government initiatives' work: culture change through collaborative inquiry (CI). *Public Administration and Development* 22(4), 337–352.

Kakabadse, A., and Kakabadse, N. (2005). Outsourcing: current and future trends. *Thunderbird International Business Review*, 47 (2005), 183–204.

Kakabadse, N., and Kakabadse, A. (2000). Critical review — outsourcing: a paradigm shift. *Journal of Management Development,* 19, 670–728.

Kaplan, S.N. (1989). The effects of management buyouts on operating performance and value. *Journal of Financial Economics,* 24, 217-254.

Karmarker, U. (2004). Will you survive the services revolution?. *Harvard Business Review* (June), 100-107.

Kedia, B. L., and Mukherjee, D. (2009). Understanding offshoring: A research framework based on disintegration, location, and externalization advantages. *Journal of World Business*, 44(3), 250–261.

Kedia, B., and Lahiri, S. (2007). International outsourcing of services: A partnership model. *Journal of International Management,* 13(1), 22-37.

Keil, T., Maula, M.V.J., Schildt, H.A., and Zahra, S.A. (2008). The effect of offshoring governance modes and relatedness of external business development activities on innovative performance. *Strategic Management Journal*, 29(8), 895–907.

Kempton, W., Firestone, J., Lilley, J., Rouleau, T., and Whitaker, P. (2005).The Offshore Wind Power Debate: Views from Cape Cod. *Coastal Management,* 33, 119–149, doi: 10.1080/08920750590917530.

Kenney, M., Massini, S., and Murtha, T.P. (2009). Offshoring administrative and technical work: New fields for understanding the global enterprise. *International Journal of Business Studies*, 40(6), 887-900.

Kern, T., Willcocks, L., and Van Heck, E. (2002). The winner's curse in IT outsourcing: how to avoid relational trauma. *California Management Review*, 44 (2), 47-69.

Khan, N., Currie, W., and Guah, M. (2003). Developing a model for offshore outsourcing. *Proceedings of the 9th Americas Conference on Information Systems, Tampa, FL.*

Kim, Y., Bae, J., Bae, H., and Kang, S. (2004). Automatic control of workflow processes using ECA rules. *IEEE Transactions on Knowledge and Data Engineering,* 16(8), 1010–1023, doi:10.1109/TKDE.2004.20.

Kimberly, J.R., and Quinn, R.E. (1984). Managing organizational translations. *Dow Jones-Irwin, Homewood,* 295–313.

Kinkel, S., and Maloca, S. (2009), Drivers and antecedents of manufacturing offshoring and backsourcing - A German perspective, *Journal of Purchasing and Supply Management*, (15), 154 - 165.

Kivijarvi, H., and Saarinen, T. (1995). Investment in information systems and the financial performance of the firm. *Information and Management,* 28, 143-163.

Kline, R.B. (2009). Becoming a Behavioral Science Researcher: A Guide to Producing Research that Matters. *The Guilford Press*, New York.

Kline, R.B . (2005). Principles and practice of structural equation modelling. *The Guilford Press, New York.*

Knight, G. A., and Cavusgil, S.T. (2004). Innovation, organizational capabilities, and the bornglobal organisation. *Journal of International Business Studies*, 35(2), 124-41.

Knight, K.E. (1967). The descriptive model of the intra-organisation innovation process. *The Journal of Business,* 40(4), 478-96.

Kock, N. (2009). Information systems theorizing based on evolutionary psychology: An interdisciplinary review and theory integration framework. *Management Information Systems Quarterly,* 33(2), 395-418.

Kock, N. (2011).Using WarpPLS in e-collaboration studies: Descriptive statistics, settings, and key analysis results. *International Journal of e-Collaboration*, 7(2), 1–18.

Kock, N. (2012). *WarpPLS 3.0 User Manual*.

Kogut, B., and Singh, B. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies,* 19(3), 411-32.

Kogut, B., and Zander, U. (1992). Knowledge of the Organisation, Combinative Capabilities, and the Replication of Technology. *Journal of International Business Studies*.

Kor, Y. Y., and Mahoney, J. T. (2000). Penrose's resources-based approach: the process and product of research creativity. *Journal of Management Studies*, 37, 108–39.

Kor, Y. Y., and Mahoney, J. T. (2004). Edith Penrose's (1959) contributions to the resource-based view of strategic management. *Journal of Management Studies*, 41, 183–91.

Kotabe, M. (1989). Hollowing-out of U.S. multinationals and their global competitiveness: An intraorganisation perspective. *Journal of Business Research*, 19, 1–15.

Kotabe, M. (1990). The relationship between offshore sourcing and innovativeness of U.S. multinational organisations: An empirical investigation. *Journal of International Business Studies,* 21(4), 623–638.

Kotabe, M. (1992), Global sourcing strategy: R&D, manufacturing, and marketing interfaces. *New York: Quorum.*

Kotabe, M., and Murray, J. Y. (2004). Global sourcing strategy and sustainable competitive advantage. *Industrial Marketing Management*, 33(1), 7−14.

Kotabe, M., Mol, M. J., and Murray, J. Y. (2009). Global sourcing strategy. The SAGE handbook of international marketing. *London: Sage Publications*.

Kumar, N., Mohapatra, P. and Chandrasekhar, S. (2009). India's Global Powerhouses: How they are taking on the World. *Harvard Business School Press, Boston, MA.*

Kumhof, M., and Rancière, R. (2010). Inequality, Leverage and Crises. *The International Monetary Fund (IMF).*

Lane, P., and Lubatkin, M. (1998). Relative absorptive capacity and interorganizational learning. *Strategic Management Journal,* 19, 461–477.

Langlois, R.N. (1992). Transaction-cost economics in real time. *Industrial and Corporate Change,* 1, 99-127.

Larsson, R., Bengtsson, L., Henriksson, K., and Sparks, J. (1998). The interorganizational learning dilemma: Collective knowledge development in strategic alliances. *Organization Science,* 9, 285–305.

Leavy, B. (2004). Outsourcing strategies: opportunities and risks Strategy and Leadership, 32, 20–25.

Lei, D., and Hitt, M. (1995). Strategic restructuring and outsourcing: The effect of mergers and acquisitions and LBOs on building organisation skills and capabilities. *Journal of Management,* 21(5), 835–859.

Leiblein, M.J., Reuer, J.J., and Dalsace, F. (2002). Do make or buy decisions matter? The influence of organizational offshoring entry on technological performance. *Strategic Management Journal,* 23, 817-33.

Lenox M, King A. (2004). Prospects for developing absorptive capacity through internal information provision. *Strategic Management Journal* 25(4), 331–345.

Leonard-Barton DL. (1995). *Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation*. Harvard Business School Press: Boston, MA.

Levinthal, D.A., and March, J.G. (1993). The Myopia of Learning. *Strategic Management Journal* 14, 95-112.

Levitt, B., March, J.G., (1988). Organizational learning. *Annual Review of Sociology* 14, 319–340.

Levy, D. L. (2005). Offshoring in the new global political economy. *Journal of Management Studies,* 42(3), 685-93.

Lewin, A. Y., and Couto, V. (2007). Next Generation Offshoring. The Globalization of Innovation. *Durham and Chicago: Duke University Centre for International Business Education and Research (CIBER) and Booz Allen Hamilton.*

Lewin, A. Y., and Peeters, C. (2006a). Forethought growth strategies: The top-line allure of offshoring. *Harvard Business Review*, 83(3), 22–23.

Lewin, A. Y., and Peeters, C. (2006b). Offshoring work: Business hype or the onset of fundamental transformation. *Long Range Planning*, 39(3), 221–239.

Lewin, A. Y., Couto, V. (2007). Next Generation Offshoring: The Globalization of Innovation. *Duke University Centre for International Business Education and Research (CIBER)/Booz Allen Hamilton Report, Durham.*

Lewin, A. Y., Long, C.P ., and Carroll, T.N . (1999). The coevolution of new organizational forms. *Organization Science*, 10(5), 535-50.

Lewin, A. Y., Massini, S., and Peeters, C. (2009). Why are companies offshoring innovation? The emerging global race for talent. *Journal of International Business Studies*, 40(6), 901–925.

Lewin, A. Y., Weigelt, C., and Emery. (2004). Adaptation and selection in strategy and change: Perspectives on strategic change in organizations. *Handbook of organization change and innovation,* 108–160.

Lewin, A., and Volberda, H. (2011). Co-evolution of global sourcing: The need to understand the underlying mechanisms of firm-decisions to offshore. *International Business Review*, 20(3), 241-251.

Lewin, A., Peacock, M., Peeters, C., Russell, J., and Sutton, G. (2005).Duke University, Centre for International Business Education and Research (CIBER)/Archstone *Consulting.2nd Bi-annual Offshore Survey Result*.

Lewin, A.Y., Massini, S., Ajchariyawong, N.P., Sappenfield, D., and Walker, J. (2009). Getting serious about offshoring in a struggling economy. *Shared services and outsourcing network (SSON)*, 19–23.

Loh, L., and Venkatraman, N. (1992). Determinants of IT outsourcing: a cross-sectional analysis. *Journal of Management Information Systems*, 9(1), 7-24.

Lskavyan, V., and Spatareanu, M. (2008). Host country's governance and the size of foreign investors. *Economics Letters,* 100 (2), 258–261.

Lumpkin, G.T., and Dess, G.G. (1995). "Simplicity as a strategy-making process: the effects of stage of organizational development and environment on performance". *Academy of Management Journal,* 38(5), 1386-407.

Luo, Y., and Peng, M.W. (1999). Learning to compete in a transition economy: Experience, environment, and performance. *Journal of International Business Studies*, 30(2), 269-96.

Luo, Y. (2002). Capability exploitation and building in a foreign market: Implications for multinational enterprises. *Organization Science*, 13: 48–63.

Luo, Y., Wang, S.L., Jayaraman, V., and Zheng, Q. (2012). Governing business process offshoring: Properties, processes, and preferred modes. *Journal of World Business,* 24(7), 13.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J.M., West, S. G., and Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83–104.

Mahoney, J.T., and Pandian, J.R. (1992). The resource based view within the conversation of strategic management. *Strategic Management Journal*, 13, 363–380.

Malone, T. W., Yates, J., and Benjamin, R.I. (1987). 'Electronic markets and electronic hierarchies'. *Communications of the Association for Computing Machinery (ACM)*, 30 (6), 484–497.

Maltz, A., Sauter, E. (1995). Services outsourcing: marketing strategy and the internal competitor. *Journal of Strategic Marketing*, 3, 233–244.

Mankiw, N., and Swagel, P. (2006).The Politics and Economics of Offshore Outsourcing. *National Bureau of Economic Research*.

Manning, S., Lewin, A.Y., Schuerch, M. 2011. The Stability of Offshore Outsourcing Relationships: The Role of Relation Specificity and Client Control. *Management International Review,* 51.

Manning, S., Massini, S., and Lewin, A. Y. (2008). A dynamic perspective on next-generation offshoring: The global sourcing of science and engineering talent. *Academy of Management Perspectives,* 22(3), 35 54.

Manning, S., Massini, S., Peeters, C., and Lewin, A.Y. (2012). Global Co-Evolution of Firm Boundaries: Process Commoditization, Capabilities, Development, and Path Dependencies. *Centre Emile Bernheim (CEB).*

Manning, S., Massini, S., Peeters, C., and Lewin. A.Y. (2012).Global Co-Evolution of Firm Boundaries: Process Commoditization, Capabilities Development, and Path Dependencies. *Centre Emile Bernheim* (*CEB).*

Maskell P., Pedersen T., Petersen B., Dick-Nielsen J. (2006). Learning Paths to Offshore Outsourcing - From Cost Reduction to Knowledge Seeking. *Centre for Strategic Management and Globalization (SMG) Working Paper.*

Maskell, P., Pedersen, T., Petersen, B., and Dick, N.J. (2007). Learning paths to offshore outsourcing: From cost reduction to knowledge seeking. *Industry and Innovation*, 14, 239–257.

Massini, S., Ajchariyawong, N.P., and Lewin, A.Y. (2010). Role of Corporate-Wide Offshoring Strategy on Offshoring Drivers, Risks and Performance. *Industry and Innovation*, 17(4).

Mayer, K. J., and Salomon, R. (2006). Capabilities, contractual hazards, and governance: integrating resource-based and transaction cost perspectives. *Academy of Management Journal,* 49, 942–959.

McCann, P., and Mudambi, R. (2005). Analytical differences in the economics of geography: the case of the multinational firm. *Environment and Planning A,* 37, 1857 -1876.

McDougall, P. P., and Oviatt, B. M. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal*, 43(5), 902–906.

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management,* 27(1), 45-63.

Metters, R., and Verma, R. (2008). History of offshoring knowledge services. *Journal of Operations Management* 26(2), 141–147.

Mihalache, O.R., Jansen, J.J.J.P., Van Den Bosch, F.A.J., and Volberda, H.W. (2012). Offshoring and firm innovation: The moderating role of top management team attributes. *Strategic Management Journal,* 33(13), 1480-1498.

Monczka, R., Trent, R., and Handfield, R. (2005). Purchasing and supply chain management. South-Western, Mason, OH.

Mosakowski, E. (2002). Overcoming resource disadvantages in entrepreneurial organisations: When less is more. In M. A. Hitt, R.D. Ireland, S.

Mudambi, R. (2008) Location, control and innovation in knowledge-intensive industries. *Journal of Economic Geography*, 8, 699–725.

Mudambi, R., and Venzin, M. (2010). The strategic nexus of offshoring and outsourcing decisions. *Journal of Management Studies*, 47(8), 1510-1533..

Mudambi, S. M., and Tallman, S. (2010). Make, buy or ally? Theoretical perspectives on knowledge process outsourcing through alliances. *Journal of Management Studies*, 47, 1434–1456.

Murray, J.Y., Kotabe, M., and Wildt, A.R. (1995). Strategic and financial performance implications of global sourcing strategy: A contingency analysis. *Journal of International Business Studies,* 26(1), 181–202.

Myers, S. (1977). The determinants of corporate borrowing. *Journal of Financial Economics, 5*(2), 147-175.

Mykland, P.A., Zhang, L. (2006). ANOVA for diffusions and Ito processes. *Annals of Statistics, forthcoming,* 34(4).

Nachum, L., and Zaheer, S. (2005). The persistence of distance? The effect of technology on MNE motivations for foreign investment. *Strategic Management Journal*, 26(8), 747–767.

Naghavi, A., and Ottaviano, G. (2009). Offshoring and product innovation. *Economic Theory*, 38 (3) , 517-532.

Nasbeth, L., and Ray, G.F. (1974). The diffusion of new industrial processes. *London: Cambridge University Press.*

Nicholson, N., Rees, A., and Rooney, A.B (1990). Strategy, Innovation and Performance. *Journal of Management Studies*, 27(5), 511-34.

Nieto, M.J., and Rodriguez, A. (2011). Offshoring of R&D: Looking abroad to improve innovation performance. *Journal of International Business Studies*, 42**,** 345–361, doi:10.1057/jibs.2010.59.

Novak, S., and Stern, S. (2008). How does outsourcing affect performance dynamics? Evidence from the automobile industry. *Management Science* 54 (12), 1963–1979.

Noya, A.M., and Canal, E.G. (2011).Technological capabilities and the decision to outsource/outsource offshore R&D services. *International Business Review*, 20(3),264-277.

Nunnally, J. (1978). Psychometric Theory. *McGraw-Hill, New York.*

Nunnally, J.C. and Bernstein, I.H. (1994). Psychometric Theory, 3rd ed. *McGraw-Hill, Inc.: New York.*

Nunnally, J.C. (1978). Psychometric Theory. *McGraw Hill: New York.*

O'Farrell, P.N., and Hitchens, D.M.W.N. (1988). Alternative theories of Small-organisation growth: a critical view. *Environment and Planning*, 20, 1365-1383.

Okhuysen, G., and Bonardi, J.P. (2011). The Challenges of Building Theory by Combining Lenses. *Academy of Management Review*, 38 (1), 6-11.

Oliva, R., and Kallenberg, R. (2003). Managing the transition from products to services. *International Journal of Service Industry Management*, 14, 160–172.

Osborne, J.W. (2008). Best Practices in Quantitative Methods. Sage Publications: Thousand Oaks, CA.

Oshri, I., Kotlarsky, J., and Willcocks, L. (2009). The Handbook of Global Outsourcing and Offshoring. *Palgrave August.*

Oviatt, B. M., and McDougall, P. P. (2005). The internationalization of entrepreneurship. *Journal of International Business Studies*, 36(1), 2–8.

Paju, T. (2007). Conceptual model of R&D offshore outsourcing. *Journal of Global Business and Technology*, 3(1), 49–61.

Palenzuela, V. A., and Bobillo, A. M. (1999). Transaction costs and bargaining power: entry mode choice in foreign markets. *Multinational Business Review*, 62–75.

Pan, Y., and David, K. (1996). Cooperative strategies of foreign organisations in an overseas country. *Journal of International Business Studies*, 27(5), 929-46.

Pan, Y., and Li, X. (2000). Joint venture formation of very large multinational firms. *Journal of International Business Studies,* 31(1), 179–189.

Pangarkar, N., and Lim, H. (2003). Performance of foreign direct investment from Singapore. *International Business Review,* 12(5), 601–624.

Parmigiani, A. (2007). Why do organisations both make and buy? An investigation of concurrent sourcing. *Strategic Management Journal*, 28, 285–311.

Pedersen, T., and Jensen, P. D. O. (2007). Offshoring of advanced activities, Paper presented at European Academy of Management (EURAM) Annual Conference Current Management Thinking: Drawing from Social Sciences and Humanities to Address Contemporary Challenges. *Brussels, Belgium: The European Academy of Management (EURAM).*

Pedhazur, E. (1997). Multiple-regression in behavioral research. *Harcourt Brace College Publishers, Orlando.*

Pelegrín, A., and Bolancé, C. (2011).Offshoring and company characteristics: some evidence from the analysis of Spanish firm data. *The Barcelona Institute of Economics (IEB).*

Penrose, E. T. (1959). The theory of the growth of the organisation. *Oxford: Blackwell.*

Penter, K., and Pervan, G. (2009).Offshore Business Process Outsourcing to India: Two Australian SME Case Studies. *Information Systems Outsourcing,* 549-561.

Penter, K., J. W. Wreford, G. P. Pervan, and F. Davidson. (2013). Offshore BPO Decisions and Institutional Influence on Senior Managers. In *Advances In Global Sourcing*, 93-116. London: Springer.

Peteraf, M.A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14, 179-91.

Peters, E., and Levin, I. P. (2008). Dissecting the risky-choice framing effect: Numeracy as an individual-difference factor in weighting risky and riskless options. *Judgment and Decision Making*, 3, 435–448.

Pfannenstein, L.L., and Tsai, R.J. (2004). Offshore Outsourcing: Current and Future Effects on American it Industry. *Information Systems Management,* 21(4).

Phan, P. H. (2004). Entrepreneurship theory: Possibilities and future directions. *Journal of Business Venturing*, 19(5), 617–620.

Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. *New York: Free Press.*

Porter, M. E. (1990). The competitive advantage of nations. New York The Free Press.

Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, 12, 95–117.

Porter, M. (1980). Strategy: Techniques for Analyzing Industries and Competitors. *Free Press, New York.*

Prahalad, C.K., and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review,* 68(3), 79–93.

Prahalad, C.K., and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review* 68(3), 79–93.

Prange, C., Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. *Journal of World Business*, 46 (1), 126-133.

Prange, C., and Janda, M. (2009). Charting Value from Global Innovation Outsourcing? Offshoring & Outsourcing. *Strategic Management Society 29th Annual.*Prezas, A.P. et al. (2010). Does offshoring create value for shareholders? *Review of Financial Economics,* 19(4), 179-191.

Preacher, K. J., and Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, and Computers,* 36, 717-731.

Pyndt, J., and Pedersen, T. (2006). Managing global offshoring strategies – A case approach. *Copenhagen Business School Press.*

Que´lin, B., and Duhamel, F. (2003). Bringing together strategic outsourcing and corporate strategy: outsourcing motives and risks. *European Management Journal*, 21(5), 647–661.

Quenouille, M. H. (1949). Approximate Tests of Correlation in Time-Series. *Journal of the Royal Statistical Society,* 11(1), 68-84.

Quinn, J.B. (1992). Intelligent enterprise: A knowledge and service based paradigm for industry. New York: Free Press.

Quinn, J.B. (1999). Strategic outsourcing: leveraging knowledge capabilities. *Sloan Management Review,* 40, 4, 9-22.

Quinn, J.B., and Hilmer, F.G. (1994). Strategic outsourcing. *Sloan Management Review*, 35, 43- 55.

Rai, A., and Patnayakuni, R. (1996). A Structural Model for CASE Adoption Behaviour. *Journal of Management Information Systems*, 205-234.

Rao, M.T.(2004). Key issues for global IT sourcing: country and individual factors. *Information Systems Management*, 21 (3), 16–21.

Reeves, L.M., and Weisberg, R.W. (1994). The role of content and abstract information in analogical transfer. *Psychological Bulletin*, 115, 381-400.

Reich, R. B. (1991). The work of nations. *New York: Knopf.*

Robertson, T., and Gatignon, H. (1998). Technology development mode: A transaction cost conceptualization. *Strategic Management Journal*, 19(6), 515–531.

Root, F.R. (1987). Entry strategies for international markets. *Lexington: D.C. Heath.*

Rothaermel, F. T., and Hitt, M. (2006). Balancing vertical integration and strategic outsourcing: effects on product portfolio, product success, and firm performance. *Strategic Management Journal,* 27(11), 1033.

Rothwell, R. (1989). Small firm size, innovation and industrial change. *Small Business Economics,* 1(1), 51–64.

Rothwell, R., and Dodgson, M. (1993). Technology-based SMEs: Their role in industrial and economic change. *International Journal of Technology Management.*

Roza, M. (2011). The Relationship between Offshoring Strategies and Firm Performance: Effect of innovation, absorptive capacity and firm size. (Doctoral dissertation). *Erasmus University, Rotterdam*

Roza, M., Bosch, F., and Volberda, H.W. (2011). Offshoring strategy: Motives, functions, locations, and governance modes of small, medium-sized and large firms. *International Business Review*, 20, 314–323.

Sako, M. (2006). Outsourcing and offshoring of business services: implications for productivity. *Oxford Review of Economic Policy*, 22(4), 499–512.

Sanins, S. M., Timbrell, J. A., Elcombe, C. R., and Nicholson, J. K. (1990), Hepatotoxin-induced hypertaurinuria: a proton NMR study. *Archives of Toxicology*, 64, 407- 411.

Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capability perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31: 914–933.

Schendel, D. and G. Patton (1976). Corporate stagnation and turnaround. *Journal of Economics and Business*, 28, 236–241.

Schendel, D., G. Patton and J. Riggs (1976). Corporate turnaround strategies: A study of profit decline and recover. *Journal of General Management*, 3, 3–11.

Schilling, M.A., and Steensma, H.K. (2002). Disentangling the theories of firm boundaries: A path model and empirical test. *Organization Science*, 13(4) , 387–401.

Schreyögg, G., and Kliesch-Eberl, M. (2007). How dynamic can organizational capabilities be? Towards a dual-process model of capability dynamization. *Strategic Management Journal*, 28, 913-933.

Schumpeter, J. A. (1934). The theory of economic development. *London: Oxford University Press.*

Shan, W. (1991). Environmental risks and joint venture sharing arrangements. *Journal of International Business Studies,* 22 (4), 555–578.

Schendel, D. and G. Patton (1976). Corporate stagnation and turnaround. *Journal of Economics and Business*, 28, 236–241.

Schendel, D., G. Patton and J. Riggs (1976). Corporate turnaround strategies: A study of profit decline and recovery. *Journal of General Management*, 3, 3–11.

Shrout, S., and Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.

Siegfried, J. J., and Evans, L. B. (1994). Empirical studies of entry and exit: A survey of the evidence. *Review of Industrial Organization*, 9(2), 121–155.

Simmonds, P. G. (1990). The combined diversification breadth and mode dimensions and the performance of large diversified firms. *Strategic Management Journal,* 11(5), 399–410.

Slaughter, S. A., and Ang, S. (1996). Employment Outsourcing In Information Systems. *Communications of the Association for Computing Machinery (ACM)*, 39(7), 47-54.

Smith, A.J. (1990). Corporate ownership structure and performance: the case of management buyouts. *Journal of Financial Economics,* 27, 143-164.

Smith, M.A., Mitra, S., and Narasimhan, S. (1998). Information systems outsourcing: A study of pre-event organisation characteristics. *Journal of Management Information Systems,* 15(2), 61-93.

Smith, M.B., and Begemann, E. (1998). Measuring association between working capital and return on investment. *South African Journal of Business Management*, 28, 1-5.

Somlev, L.P., and Hoshino, Y. (2005).Influence of location factors on establishment and ownership of foreign investments: The case of the Japanese manufacturing firms in Europe. *International Business Review*, 14(5), 577-598.

Song, J. (2002). Firm capabilities and technology ladders: Sequential foreign investments of Japanese electronics firms in East Asia. *Strategic Management Journal*, 23, 190–210.

Srivastava, S. C., Teo, T. S. H., and Mohapatra, P. S. (2008). Business-related determinants of offshoring intensity. *Information Resources Management Journal*, 21 (1), 44–58.

Steensma, H.K., Marino, L., Weaver, K.M., and Dickson, P.H. (2000). The influence of national culture on the formation of technology alliances by entrepreneurial organisations. *Academy of Management Journal* 43(5), 951-73.

Stevens, D. (2002). The effects of reputation and ethics on budgetary slack. *Journal of Management Accounting Research* 14, 153-171.

Stopford, J. J., and Wells, L. T. (1972). Managing the multinational organisation of the organisation and overlap of subsidiaries. *New York: Basic Books.*

Stratman, J. K. (2008). Facilitating offshoring with enterprise technologies: Reducing operational friction in the offshoring entry and production of services. *Journal of Operations Management*, 26(2), 275–287.

Stringfellow, A., Teagarden, M. B., and Nie, W. (2008). Invisible costs in offshoring services work. *Journal of Operations Management*, 26(2), 164–179.

Subramaniam, M., and Venktraman, N. (2001). Determinants of transnational new product development capability: Testing the influence of transferring and deploying tacit overseas knowledge. *Strategic Management Journal*, 22, 359-78.

Swartz, N. (2004). Offshoring privacy. *Information Management Journal,* 38(5), 24-26.

Tabachnick, B., and Fidell, L. (2001). Using Multivariate Statistics. *Allyn and Bacon, Boston.*

Tallman, S., & Fladmore-Lindquist, K. (2002). Internationalization, globalization, and capability-based strategy. *California Management Review*, 45(1), 116–135.

Tam, K.Y. (1998). The effect of information technology investments on firm performance and evaluation: Evidence from newly industrialized economies. *Information Systems Research, 9,* 85-98.

Taylor, S. E., and Aspinwall, L. G. (1996). Mediating and moderating processes of psychosocial stress. In Kaplan's Psychosocial stress: Perspectives and structure theory, life course and methods". *Academic Press.*

Tebachnick, B.G., and Fidell, L.S. (2001). Using multivariate statistics. *Boston: Allyn and Bacon.*

Teece, D. J. (1987). Profiting from technological innovation: Implications for integration, collaboration, licensing, and public policy. *International Collaborative Ventures in U.S. Manufacturing. Cambridge, MA.*

Teece, D.J., Pisano, G., and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-33.

Teo, T.S.H., and King, W.R. (1997). Integration between business planning and information systems planning: An evolutionary-contingency perspective. *Journal of Management Information Systems*, 14(1), 185-214.

Terpstra, V., & Chow-Ming, Y. (1988). Determinants of foreign investment of U.S. advertising agencies. *Journal of International Business Studies, 19*(1), 33–46.

Thornhill, S. (2006). Knowledge, innovation and firm performance in high- and low-technology regimes. *Journal of Business Venturing*, 21, 687-703.

Thornton, P.H., and Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: executive succession in the higher education publishing industry. *American Journal of Sociology*, 105, 801–843.

Tiwana, A. (2008). Does technological modularity substitute for control? A study of alliance performance in software outsourcing. *Strategic Management Journal*, 29, 769-80.

Tsai W. (2001). Knowledge transfer in intraorganizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal* 44, 996–1004.

Tukey, J.W. (1958). Bias and confidence in not-quite large samples. *The Annals of Mathematical Statistics*. 29(2), 614.

Tushman, M.L., and Nadler, D.A. (1986). Organizing for innovation. *California Management Review,* 28(3), 74-82.

Tyre, M. and Hauptman, O. (1992). Effectiveness of organisational response to technological change in the production process. *Organisation Science*, 3(3), Printed in U.S.A.

The United Nations Conference on Trade and Development (UNCTAD) and Roland Berger Associates. (2004). *Service Offshoring Takes Off in Europe – In Search of Improved Competitiveness*. Paris: *The United Nations Conference on Trade and Development (UNCTAD).*

The United Nations Conference on Trade and Development (UNCTAD). (2004). *World investment report*, the shift towards services. *New York, Geneva: VN.*

Van, W. D., and Xavier, R. (2005). Potential Offshoring: Evidence from Selected Countries. *Brookings Trade Forum*, 165-194.

Vermeulen, F., and Barkema, H. (2002). Pace, rhythm, and scope: Process dependence in building a profitable multinational corporation. *Strategic Management Journal,* 23(7), 637–653.

Vivek, S. D., Banwet, D. K., and Shankar, R. (2008). Analysis of interactions among core, transaction and relationship-specific investments: The case of offshoring. *Journal of Operations Management*, 26(2), 180–197.

Volberda HW, Foss NJ, Lyles MA. (2010). Absorbing the concept of absorptive capacity: how to realize its potential in the organization field. *Organization Science* 21, 931–951.

Wales, W., Parida, V., and Patel P. (2012). Too Much of A Good Thing? Absorptive capacity, firm performance, and the moderating role of entrepreneurial orientation. *Strategic Management Journal*. DOI: 10.1002/smj.2026

Wang, C. L., and Pervaiz, K. A. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management,* 7(4), 303-313.

Wegener, D.T., and Fabrigar, L.R. (2000).Analysis and design for nonexperimental data: addressing causal and noncausal hypotheses. *Handbook of Research Methods in Social and Personality Psychology, Cambridge University Press, New York*, NY, 412-50.

Weigelt, C. (2009). The effect of outsourcing new technologies on integrative capabilities and performance. *Strategic Management Journal* 30(6), 595-616.

West, M.A., and Farr, J.L. (1990). Innovation at work. In Innovation and Creativity at Work: Psychological and Organizational Strategies. *In M.A. West, J.L. Farr (Eds.)*, 3–13.

Westhead, P., Wright, M., and Ucbasaran, D. (2001). The internationalization of new and small organisations: A resource-based view. *Journal of Business Venturing,* 16(4), 333–358.

Whitaker, J., Mithas, S., and Krishnan, M.S. (2005). Antecedents of onshore and offshore business process outsourcing. D. Avison, D. Galletta, eds. Proceedings of the 26th International Conference on Information Systems (ICIS), Association for Information Systems, 85–96

Whitten, D., and Leidner, D. (2006). Bringing IT Back: An Analysis of the Decision to Backsource or Switch Vendors. *Decision Sciences*, 37(4), 605-621.

Williamson, O. E. (1975). Markets and Hierarchies: Analysis and Antitrust Implications. A Study in the Economics of Internal Organization. *New York: The Free Press.*

Williamson, O.E. (1985). The Economic Institutions of Capitalism. *The Free Press, New York.*

Williamson, O.E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36, 269–296.

Wolf, J. A., and Pett, T.L. (2000). Internationalization of small organisations: An examination of export competitive patterns, organisation size, and export performance. *Journal of Small Business Management* 38 (2), 34–47.

Wolter, C., and Veloso, F.M. (2008). The effects of innovation on vertical structure: Perspectives on transaction costs and competences. *Academy of Management Review,* 33, 586-605.

Woodcock, C. P., Beamish, P. W., and Makino, S. (1994). Ownership-based entry mode strategies and international performance. *Journal of International Business Studies,* 25(2), 253–273.

Yang, M.H., Chen, J.C.H., Wu, C.H., and Chao, H.Y. (2010). On characteristics influencing consumer's intention to use web-based self-service. *Human Systems Management*, 29(1), 41–49.

Yigang, P., and Chi, P. S. K. (1999). Financial performance and survival of multinational corporations in China. *Strategic Management Journal,* 20(4), 359–374.

Youngdahl, W., and Ramaswamy, K. (2008). Offshoring knowledge and service work: A conceptual model and research agenda. *Journal of Operations Management*, 26(2), 212–221.

Zahra, S. A., and George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185-203.

Zahra, S.A., and Hayton, J.C. (2008). The effect of international venturing on firm performance: The moderating influence of absorptive capacity. *Journal of Business Venturing,* 23, 195-220.

Zaima, J. K., Turetsky, H., and Cochran, B. (2005). "The MVA-EVATM Relationship: Separation of Market Driven versus Organisation Driven Effects". *Review of Accounting and Finance,* 4(1), 32-49.

Zhang, Y. (2006). The presence of a separate COO/ president and its effect on strategic change and CEO dismissal. *Strategic Management Journal,* 27(3), 283-300.

Zmud, R.W. (1982). Diffusion of modern software practices: Influence of centralization and formalization. *Management Science*, 28(12), 1421-31.

Zhang, Y. (2006). The presence of a separate COO/ president and its effect on strategic change and CEO dismissal. *Strategic Management Journal,*27(3), 283-300.

Zhang Y, Li H, Li Y, Zhou L-A.(2010). FDI spillovers in an emerging market: the role of foreign firms' country origin diversity and domestic firms' absorptive capacity. *Strategic Management Journal* 31(9): 969–989.