
ETD Archive

2014

An Empirical Examination of Relational Governance and Service Capabilities on the Success of Professional Service Firms Offshore Outsourcing the Client Perspective

Renee M. Castrigano
Cleveland State University

Follow this and additional works at: <https://engagedscholarship.csuohio.edu/etdarchive>

 Part of the [Business Commons](#)

How does access to this work benefit you? Let us know!

Recommended Citation

Castrigano, Renee M., "An Empirical Examination of Relational Governance and Service Capabilities on the Success of Professional Service Firms Offshore Outsourcing the Client Perspective" (2014). *ETD Archive*. 53.
<https://engagedscholarship.csuohio.edu/etdarchive/53>

This Dissertation is brought to you for free and open access by EngagedScholarship@CSU. It has been accepted for inclusion in ETD Archive by an authorized administrator of EngagedScholarship@CSU. For more information, please contact library.es@csuohio.edu.

**AN EMPIRICAL EXAMINATION OF RELATIONAL GOVERNANCE AND
SERVICE CAPABILITIES ON THE SUCCESS OF PROFESSIONAL SERVICE
FIRMS OFFSHORE OUTSOURCING:
THE CLIENT PERSPECTIVE**

RENEE M. CASTRIGANO

**Bachelor of Science
John Carroll University
May 1988**

**Masters of Accountancy and Financial Information Systems
Cleveland State University
December 1996**

**Submitted in partial fulfillment of requirements for the degree
DOCTOR OF BUSINESS ADMINISTRATION
CLEVELAND STATE UNIVERSITY
May 2014**

© Renee M. Castrigano, 2014

Approval page to be inserted here

DEDICATION

I dedicate this dissertation to my family for their unending love and support:

To my husband, Tim. I thank you for your patience and support throughout the five years of the doctoral process. Over the past twenty six years, we have shared a multitude of experiences with each being a testament to faith, hope and love.

To my dearest daughters, Megan and Sarah, whom I love and cherish. I am the luckiest mom! Thank you for your love and support. Laugh often and love deeply, believe in yourself and follow your dreams.

To my parent, Patrick and Eleanor Rich. I thank you for your love, encouragement, home-cooked meals, and help with the girls. You have instilled the importance of higher education and persistence for which I will forever be grateful.

To my brothers and all of my in-laws, both Rich and Castrigano. I thank you all for your years of encouragement. I am blessed to be a part of two fabulous families, each willing to be there for one another with immense love.

Thank you!

Acknowledgement

I would like to express my sincere appreciation for my dissertation committee for your guidance, encouragement and words of advice. I have learned from your expertise and leadership and I offer my heartfelt thanks for sharing your time and knowledge with me. This committee, consisting of Dr. Javalgi, Dr. Dixit, Dr. Poznanski and Dr. Wu, has assisted me to achieving my dream and a simple “thank you” is not strong enough to show my gratitude to each of you.

Abstract

Professional services, such as accounting, finance, engineering and management consulting, are significant contributors to the U.S. economy accounting for the largest value added industry within the private sector. Knowledge-intensive professional services reached this level of economic prominence by responding to heightened competition, managing rising costs, utilizing key resources, and re-directing their focus to internal core competencies through the strategic decision to engage in offshore outsourcing relationships. By 2015, the Congressional Research Study report predicts 3.4 million, or 13.7% of professional service jobs will be offshore outsourced. Offshore outsourcing is a firm level strategic decision to relocate business activities to an offshore third party primarily to emerging markets. Based on existing theories of transaction cost economics, resource based view, and resource dependence theory, this dissertation empirically validates a comprehensive model evaluating the multi-dimensional relational governance mechanism of collaboration on the capabilities of the offshore service provider. In addition, the model examines the influence of the service capabilities on the success of the client firm. One of the key contributions of this study is the client perspective examination of the relationship between the U.S. client firm and offshore service provider thereby addressing a stated need for additional academic research.

The importance of governance mechanisms established by professional service firms have evolved over time from minimizing transaction costs and opportunistic

behavior, to maximizing access to complementary resources, to building long-term relationships based on communication, commitment and information sharing. These governance mechanisms are integral to a collaborative client-vendor relationship. This dissertation develops hypotheses, from existing outsourcing literature, evaluating the influence of collaboration on the client's perception of the learning capability, the service innovativeness and the technological capability of the offshore service provider. Additional hypotheses include the influence of these three capabilities on the success of the client firm. Measurement scales were adopted from prior research, tested for reliability and validity using exploratory factor analysis, and used in structural equation modeling to assess the hypotheses. The analyzed results confirm the significant influence of collaboration on service firm capabilities and the influence of capabilities on the success of the offshore outsourcing engagement.

<u>Table of Contents</u>	<u>Page</u>
ABSTRACT	vi
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTERS	
Chapter I: Introduction	
1.1 Overview.....	1
1.2 The Importance of the Service Industry.....	4
1.3 An Introduction to Offshore Outsourcing.....	5
1.4 An Introduction to Professional Service Firms.....	12
1.4.1 Introduction to Offshore Outsourcing of Professional Service Firms.....	16
1.5 Purpose of Dissertation.....	20
1.6 Significance of Research	23
Chapter II: Literature Review	
2.1 Theoretical Overview	26
2.2 Transaction Cost Economics	27
2.2.1 TCE and Offshore Outsourcing	34
2.2.2 Limitations of TCE	35
2.3 Resource-based View	36
2.3.1 RBV and Offshore Outsourcing	41
2.3.2 Limitations of RBV	42
2.4 Resource Dependence Theory	43

2.5 Literature Review: Offshore Outsourcing Success	47
2.6 Literature Review: Relational Governance and Collaboration.....	49
2.7 Literature Review: Service Capabilities.....	58
2.7.1 Technological Capability.....	59
2.7.2 Learning Capability	62
2.7.3 Service Innovativeness	64
Chapter III: Model and Hypotheses Development	
3.1 Overview	68
3.2 Collaboration Hypotheses	
3.2.1 Hypothesis 1a: Collaboration and Technological Capability	69
3.2.2 Hypothesis 1b: Collaboration and Learning Capability	71
3.3 Technological Capability Hypotheses	
3.3.1 Hypothesis 2a: Technological Capability and Learning Capability	73
3.3.2 Hypothesis 2b: Technological Capability and Service Innovativeness	74
3.3.3 Hypothesis 2c: Technological Capability and Offshore Outsourcing Success	76
3.4 Learning Capability Hypotheses	
3.4.1 Hypothesis 3a: Learning Capability and Service Innovativeness	77
3.4.2 Hypothesis 3b: Learning Capability and Offshore Outsourcing Success	78
3.5 Service Innovativeness Hypothesis	

3.5.1 Hypothesis 4: Service Innovativeness and Offshore Outsourcing Success	80
Chapter IV: Research Design and Methodology	
4.1 Overview	83
4.2 Study Design and Sample	83
4.2.1 Sample Population and Sampling Criteria	88
4.2.2 Sample Size	88
4.3 Data Collection Procedures	91
4.4 Survey Design and Scale Development	
4.4.1 DV: Offshore Outsourcing Success Scale	99
4.4.2 Collaboration Scale	100
4.4.3 Technological Capability Scale	101
4.4.4 Learning Capability Scale	102
4.4.5 Service Innovativeness Scale	104
4.4.6 Control Variables	106
4.4.6.1 Size of Client Firm	106
4.4.6.2 Location of Service Provider.....	107
4.4.6.3 Type of Offshore Outsourcing	108
4.5 Assumptions of Structural Equation Modeling	108
4.6 Dissertation Model	110
Chapter V: Results	
5.1 Overview	111
5.2 Pretest Results	
5.2.1 Pretest Descriptive Statistics	111

5.2.2 Pretest Reliability and Validity Assessments	
5.2.2.1 Offshore Outsourcing Scale	116
5.2.2.2 Collaboration Scale	118
5.2.2.3 Technological Capability Scale	119
5.2.2.4 Learning Capability Scale	121
5.2.2.5 Service Innovativeness Scale	122
5.3 Full Sample Results	123
5.3.1 Full Sample Descriptive Statistics	124
5.3.2 Full Sample Frequency Distributions	129
5.3.2 Normality and Multicollinearity	130
5.3.4 Testing Procedures	131
5.3.5 Assessment of Response Bias and Common Method Bias ...	131
5.3.6 Full Sample Reliability and Validity Assessments	134
5.4 Analysis of Model	
5.4.1 Structural Equation Model Fit	135
5.4.2 Analysis of Hypotheses	136
5.4.3 Structural Model with Standardized Parameter Estimates ..	141
Chapter VI: Discussion	
6.1 Discussion of Results	142
6.2 Managerial Contributions	147
6.3 Limitations	150
6.4 Future Research	150

Bibliography	152
Appendix	
A: Survey in Response Format	173

LIST OF TABLES

Table I: Offshore outsourcing of tax preparation services by U.S. accounting firms ...	18
Table II: Summary of International Business Theories, Governance and Capabilities...	46
Table III: Summary of Offshore Outsourcing Success Literature	48
Table IV: Summary of Relational Governance Literature	53
Table V: Summary of Technological Capability Literature	61
Table VI: Summary of Learning Capability Literature	63
Table VII: Summary of Service Innovativeness Literature	67
Table VIII: Collection of Pretest Sample Data	112
Table IX: Pretest Sample Data of Accounting, Engineering and IT Firms	113
Table X: Pretest Count by Professional Service Firm Activity	114
Table XI: Pretest Type of Offshore Outsourcing Engagement, Multiple Engagements	114
Table XII: Pretest Type of Offshore Outsourcing Engagement: Restated	115
Table XIII: Pretest Data: Firm Size	115
Table XIV: Pretest Firm Experience	116
Table XV: Pretest Offshore Outsourcing Success Scale Reliability and Validity Assessments	117
Table XVI: Pretest Collaboration Scale Reliability and Validity Assessments.....	119
Table XVII: Pretest Technological Capability Scale Reliability and Validity Assessments	120
Table XVIII: Pretest Learning Capability Scale Reliability and Validity Assessments	121

Table XIX: Pretest Service Innovativeness Scale Reliability and Validity Assessments	123
Table XX: Collection of Qualtrics Full Sample Data	124
Table XXI: Full Sample Breakdown of Professional Service Firms Engaged in Offshore Outsourcing	125
Table XXII: Full Sample Primary Business Activity of Professional Service Firm	126
Table XXIII: Full Sample Offshore Outsourcing Type of Engagement including Multiple Engagements	126
Table XXIV: Full Sample Offshore Outsourcing Type of Engagement Restated	127
Table XXV: Full Sample Data for Firm Size	128
Table XXVI: Full Sample Experience of Professional Service Firms in Offshore Outsourcing	128
Table XXVII: Full Sample Construct Frequencies	129
Table XXVIII: Assessment of Response Bias	132
Table XXIX: Summary of Full Sample Reliability and Validity Assessments	134
Table XXX: Model Fit Indices	135
Table XXXI: Tests of Significance	137
Table XXXII: Summary of Hypotheses	140

LIST OF FIGURES

Figure 1: Location Factors for Offshore Outsourcing of Professional Services	9
Figure 2: Graphical Depiction of Types of Offshore Outsourcing	11
Figure 3: Offshore Outsourcing of Professional Services	19
Figure 4: Theoretical Model of Dissertation	69
Figure 5: Dissertation Model	110
Figure 6: Structural Model with Standardized Parameter Estimates	141

CHAPTER I

INTRODUCTION

1.1 Overview

The purpose of this research is to empirically examine the importance of collaboration in an offshore outsourcing relationship and its influence on vendor capabilities. In the 2007 PricewaterhouseCoopers (PwC) Global Outsourcing study, outsourcing success depends upon a highly collaborative client-vendor relationship (Miller, 2008). The PwC study further provides managerial evidence of the importance of collaboration on gaining a competitive advantage. This dissertation will address the importance of collaboration in the client-vendor relationship, an essential component to a long term successful relationship (Humphries & Wilding, 2004).

The extant international business literature has thoroughly investigated the strategic decision to offshore outsource, the decision on the location of the service provider, and the client-vendor relationship, especially from the vendor firm perspective (Lee and Kim, 2005; Nielsen & Nielsen, 2009; Eisingrich, Rubera, Seifert, 2009). Most of this literature has been directed toward the dependent variable of performance measures or the quality of the performance. The offshore outsourcing literature stream

has examined numerous antecedents to performance including the benefits and risks (Herath, Kishore, 2009), hidden costs (Larson, Manning, Pedersen, 2013), relational quality (Park, Lee, Morgan, 2011), knowledge transfer (Deng, 2012), organizational learning (Whitaker, Mithas, Krishnan, 2010) or trust (Wang, Bradford, Xu, Weitz, 2008) to name only a few. The scope of these studies have crossed many industries including biotech (Welter, Bosse, Alvarez, 2012), supply chain logistics (Richey, Adams, Dalela, 2012), public sector (Swar, Moon, Oh, Rhee, 2012), or services (Kotabe, Murray, Javalgi, 1998; Kedia & Lahiri, 2007). However, there appears to be a shift occurring in the current offshore outsourcing literature to understanding the means to sustaining the successful relationship between the client and vendor engaged in the offshore outsourcing relationships.

An offshore outsourcing relationship requires the client firm to elect and implement the strategic decision to outsource in-house services to an offshore third party service provider, also called the vendor. The comprehensive model developed for this paper will examine the relationship between the U.S.-based (client) professional service firm and the offshore service provider, evaluated from the U.S. client firm perspective. The client perspective is not extensively examined in prior research. This study focuses on the importance of the collaborative relationship between the client and vendor firms engaged in an offshore outsourcing relationship. The research topics to be surveyed are the multidimensional relational governance mechanism of collaboration and service capabilities influencing the success of offshore outsourcing engagement. More specifically, this dissertation paper empirically assesses the impact of multidimensional collaboration on the service capabilities of the vendor firm, namely service

innovativeness, technological capabilities and learning capability. These service capabilities will be analyzed to determine the significance on the success of the offshore outsourcing engagement.

This model will be supported with a solid theoretical background, namely the use of resource-based view, transaction cost economics, and resource dependence theory. The focus on the importance of collaborative relationships will necessitate a review of network theory as the link to unite theories into one cohesive justification. Chapter II will use these three international business theories to support the usefulness of collaboration in minimizing risks and maximizing the efficient use of firm resources in developing capabilities necessary for a successful relationship.

Chapter III will hypothesize the relationship between the relational governance mechanism of collaboration and each of the service capabilities. The service capabilities are critical to knowledge intensive offshore outsourcing relationships because of the intensive human capital requirements specific to these areas of firm specialization. The dissertation will further test the influence of these capabilities on the success of the offshore outsourcing engagement. Success will be evaluated and operationalized in a manner consistent with previous offshore outsourcing literature. Eight hypotheses will be analyzed in this study.

Chapter IV will discuss the research design and methodology used in the pre-test sample and full data sample. The construction and distribution of the survey will be reviewed. Reliability and validity tests will confirm the appropriateness of the survey instrument as a tool used to analyze the hypotheses of this study. The utilization of structural equation modeling to test the hypothesis will be explained and the assumptions

will be explored. Chapter V will detail the results of the hypothesis testing through defining the significance and power of the statistical results. Chapter VI will conclude with a discussion of implications and a conclusion to the study.

1.2 The Importance of the Service Industry

The service industry is the largest percentage of the private industry gross domestic product (GDP) for the United States and the world economy in 2012. According to the World Bank Report 2012 and the 2012 Central Intelligence Agency World Factbook, services account for 79.7% of United States GDP while industry accounts for 19.1% and agriculture 1.2%. The 79.7% of GDP devoted to services in the United States is greater than the world average of 63.6% of GDP; therefore exposing the significance of the service industry to the U.S. economy, as well as the world economy. In addition, the 2012 World Bank Report reports the labor force by occupation showing 37.3% of the U.S. labor force is employed in the professional, managerial, or technical service field. This is the largest percentage of the U.S. workforce, exceeding the sales industry by 13.1%.

Professional services are significant contributors to the U.S. economy. These specialized services account for almost 21% of the United States gross domestic product, after recording two consecutive years of growth and accounts for largest value added industry within the private sector (Kim, Gilmore, Jolliff: 2012). Professional services reached this level of economic prominence by responding to heightened competition, managing rising costs, and re-directing their focus to internal core competencies through the strategic decision to engage in offshore outsourcing relationships. These information-intensive services are considered a “soft” service (Erramilli, 1990) with specialized

educational requirements, higher knowledge-intensity and professional standards and ethics. This paper specifically identifies professional services as accounting services (audit and tax), management consulting, engineering services and information technology services. These were chosen for several reasons. First, my personal work history has been in the field of accounting with firsthand experience of the offshore outsourcing of tax services to emerging markets. From these experiences, offshore outsourcing has been a research topic of interest throughout my doctoral program. Second, the four specialized services have similar characteristics in defining the services provided, such as human capital intensive, specialized educational achievements necessary, and employee knowledge specific to their field. Section 1.3 will have a greater, in-depth discussion on professional services.

1.3: An Introduction of Offshore Outsourcing

Offshore outsourcing is a firm-level strategic decision to relocate business activities or processes from in-house completion to a specialized third party located in an offshore location. Offshore outsourcing involves expanding the geographic boundaries of the firm; therefore obliging the U.S.-based firm (referred to as the client) to forgo some degree of direct authority and control and assume the risks associated with a third party provider (Stack and Downing, 2005). This strategic choice has garnered extensive academic research, intense interest in managerial discussions, and debates amongst the general public, most of which have taken a negative perception of offshore outsourcing. However, the growth and success of offshore outsourcing has led to this becoming a standard, commonplace business practice (Kedia and Lahiri, 2007). According to Friedman (2005), the world is “flat” in part because of offshore outsourcing. Jensen and

Pedersen (2012: 313) assert offshore outsourcing is the “reorganization of the world economy” bringing new opportunities to emerging markets. The offshore expansion through a collaborative partnership with a third party provider expands the marketplace and increases access to skilled labor resulting in the development of global interdependencies (Javalgi, Dixit, Scherer, 2009).

Firms make several critical decisions prior to the inception of an offshore outsourcing engagement, one of which is the decision of which in-house tasks could be outsourced to a third party while maintaining the same expectation of quality. The range of business activities being offshore outsourced has evolved from simplistic, routine tasks, such as data entry work or the production of tangible goods, to idiosyncratic, complex, knowledge-intensive duties such as engineering design or complex tax preparation (Lahiri & Kedia, 2011; Mudambi & Tallman, 2010; Lewin & Volberda, 2011).

In the early years, outsourcing was common in the manufacturing environment with the loss of “blue collar jobs.” Strange (2011) uses Nike, Toyota and pharmaceutical production as examples of manufacturers electing offshore outsourcing as a corporate strategy. Production of goods and services previously completed within the physical confines of the firm are being externalized; thus “slicing up” the value chain (Contractor, Kumar, Kundu, Pedersen, 2010; Strange, 2011). The rationalization for the decision to outsource the production workload stemmed primarily from a need for cost reduction especially during times of a troubled home economy. Make versus buy became a significant decision for manufacturing firms (Sanders, Locke, Moore, Autry, 2007; Mudambi & Tallman, 2010). Routine production tasks were outsourced with the intent to

access lower cost labor, access to more flexible employees, or to change the internal dynamics and responsibilities of the firm (Quinn, 1999).

However, as the United States changed from a manufacturing- based economy to a service-based economy, many factors have changed. “White collar”, office or managerial jobs are now being outsourced (Sanders et al, 2007; Strange, 2011). The decision to offshore outsource is explained through the improved access to innovative ideas, faster response times to client needs, and the ability to focus on internal core competencies or a worldwide expansion of the market in which the firm conducts its business (Mudambi & Tallman, 2010). The availability of high-skilled, innovative labor at lower costs has “flattened the world” (Friedman, 2005) and complicated the managerial decision-making process. As the U.S. economy has become dominated by the service industry, the activities being offshore outsourced have also shifted to knowledge intensive higher-level services.

Another significant strategic decision is the offshore location of the service provider. The emerging markets have gained acceptance as the location of choice for many U.S. service firms (Javalgi et al, 2009; Lahiri & Kedia, 2011; Lahiri, Kedia, Mukherjee, 2012). A.T. Kearney, a leading consulting company, publishes an annual Global Service Location Index. This report details the leading countries for offshore outsourcing of knowledge-intensive services. Figure 1, as shown on page 9, is the research findings by A.T. Kearney detailing the offshore locations of choice, ranked by country preference. In addition, the report details a breakdown between three evaluation criteria: Financial Attractiveness, People Skills, and Business Environment. Financial attractiveness is evaluated based on compensation costs, tax/regulatory costs and

infrastructure costs, rated from 0-4. Item such as median compensation and the perception of corruption are included in this measurement. The emerging markets of Vietnam and Indonesian ranked strongest for offshore outsourcing of services based on financial attractiveness. People skills are evaluated on a 0 to 3 scale and measured with level of education, relevant professional experience, availability of the labor force and language capabilities. India, China, the United Kingdom held the top three location-of-choice spots for people skills measured by the percent of a university- educated workforce including a quality rating for the schools. Business environment is the third evaluation tool in offshore outsourcing of knowledge-intensive services. A.T. Kearney measures business environment with an analysis of the country infrastructure, cultural exposure, country risk, and the security of intellectual property. The measurement items include the quality of telecommunication, access to internet, intellectual property protection, and software piracy protection. Singapore and Germany rank highest in this category using this evaluation criterion.

Figure 1, shown below, details the resulting scores by country and measurement criteria. The data shows the emerging markets of India, China and Malaysia as the top three countries for offshore outsourcing of services. These countries have gained the reputation as having an extensive labor market that is technologically adept, willing to adapt to different cultures, able to speak multiple languages, and a labor force with the ability to generate innovative ideas (Javalgi et al, 2009). Additionally, firms expanding into these countries have access to a competent labor force of approximately 1.5 billion people; thus creating immediate value to the firm by the sheer volume of qualified labor.

Figure 1: Location Factors for Offshore Outsourcing of Professional Services

Figure 1

The A.T. Kearney Global Services Location Index,TM 2011

Rank	Country	Financial attractiveness	People skills and availability	Business environment	Total score
1	India	3.11	2.76	1.14	7.01
2	China	2.62	2.55	1.31	6.49
3	Malaysia	2.78	1.38	1.83	5.99
4	Egypt	3.10	1.36	1.35	5.81
5	Indonesia	3.24	1.53	1.01	5.78
6	Mexico	2.68	1.60	1.44	5.72
7	Thailand	3.05	1.38	1.29	5.72
8	Vietnam	3.27	1.19	1.24	5.69
9	Philippines	3.18	1.31	1.16	5.65
10	Chile	2.44	1.27	1.82	5.52
11	Estonia	2.31	0.95	2.24	5.51
12	Brazil	2.02	2.07	1.38	5.48
13	Latvia	2.56	0.93	1.96	5.46
14	Lithuania	2.48	0.93	2.02	5.43
15	United Arab Emirates	2.41	0.94	2.05	5.41
16	United Kingdom	0.91	2.26	2.23	5.41
17	Bulgaria	2.82	0.88	1.67	5.37
18	United States	0.45	2.88	2.01	5.35
19	Costa Rica	2.84	0.94	1.56	5.34
20	Russia	2.48	1.79	1.07	5.34
21	Sri Lanka	3.20	0.95	1.11	5.26
22	Jordan	2.97	0.77	1.49	5.23
23	Tunisia	3.05	0.81	1.37	5.23
24	Poland	2.14	1.27	1.81	5.23
25	Romania	2.54	1.03	1.65	5.21
26	Germany	0.76	2.17	2.27	5.20
27	Ghana	3.21	0.69	1.28	5.18
28	Pakistan	3.23	1.16	0.76	5.15
29	Senegal	3.23	0.78	1.11	5.12
30	Argentina	2.45	1.58	1.09	5.12
31	Hungary	2.05	1.24	1.82	5.11
32	Singapore	1.00	1.66	2.40	5.06
33	Jamaica	2.81	0.86	1.34	5.01
34	Panama	2.77	0.72	1.49	4.98
35	Czech Republic	1.81	1.14	2.03	4.98
36	Mauritius	2.41	0.87	1.70	4.98
37	Morocco	2.83	0.87	1.26	4.96
38	Ukraine	2.86	1.07	1.02	4.95
39	Canada	0.56	2.14	2.25	4.95
40	Slovakia	2.33	0.93	1.65	4.91
41	Uruguay	2.42	0.91	1.42	4.75
42	Spain	0.81	2.06	1.88	4.75
43	Colombia	2.34	1.20	1.18	4.72
44	France	0.38	2.12	2.11	4.61
45	South Africa	2.27	0.93	1.37	4.57
46	Australia	0.51	1.80	2.13	4.44
47	Israel	1.45	1.35	1.64	4.44
48	Turkey	1.87	1.29	1.17	4.33
49	Ireland	0.42	1.74	2.08	4.24
50	Portugal	1.21	1.09	1.85	4.15

Note: The weight distribution for the three categories is 40:30:30. Financial attractiveness is rated on a scale of 0 to 4, and the categories for people skills and availability, and business environment are on a scale of 0 to 3.

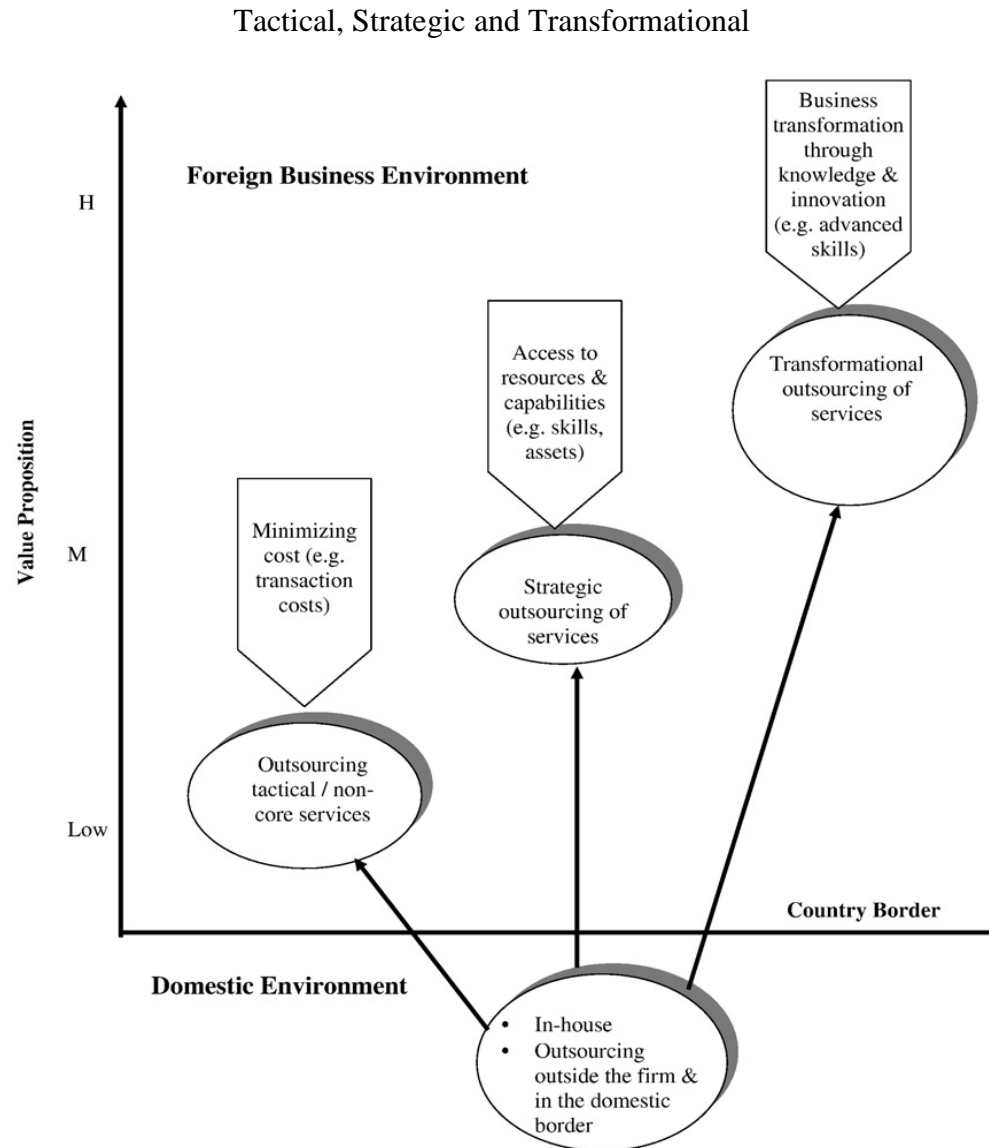
Source: A.T. Kearney Global Services Location IndexTM, 2011

Firms engaged in offshore outsourcing need governance mechanisms to protect their firm resources and capabilities from increased risks, information asymmetry, and opportunistic behavior created from the relationship with the third party service provider (Haried & Ramamurthy, 2009; Manning, Lewin, Schuerch, 2011). The need for

governance is heightened in knowledge-intensive offshore outsourcing due to the proprietary or confidential exchange of information. The relational governance mechanisms of commitment, communication and information exchange are critical in highly skilled offshore outsourcing. Hoegl & Wagner (2005) examined the buyer-supplier relationship and concluded these three relational governance mechanisms, commitment, communication and information exchange, integrate into collaboration and influence the success of the relationship. Yet the magnitude of these governance mechanisms can fluctuate based on the type of offshore outsourcing engagement.

Javalgi et al (2009) identified three outsourcing engagements whose governance mechanisms and firm capabilities vary based on the degree of the relationship between the U.S. client and the offshore service provider. The taxonomy, created by these authors and frequently referenced, includes tactical, strategic and transformational offshore outsourcing. Figure 2, as shown below, graphically depicts the three-level taxonomy. Tactical offshore outsourcing is transaction-based with a focus on business processing of non-core activities (Javalgi et al, 2009; Lahiri & Kedia, 2009). These relationships are usually short-term contractual arrangements with the intent to achieve economies of scale and minimize operational costs; therefore, tactical offshore outsourcing is associated with low risk levels. The transactional nature of the relationship results in lower levels of collaboration within the client-vendor relationship. Tactical outsourcing relationships do not emphasize the creation of firm value nor encourage the creativity of innovative ideas.

Figure 2: Graphical Depiction of Types of Offshore Outsourcing:



The second level of offshore outsourcing, strategic, offers greater risks but with greater benefits if the relationship is successful. The intent of strategic offshore outsourcing is to partner with an offshore service provider that offers complementary resources to supplement the client firm resources and sustain a competitive advantage in the client firm market (Javalgi et al, 2009; Lahiri and Kedia, 2009). The partnering

relationship for access to complementary resources infers a higher degree of collaboration within the client-vendor relationship. Strategic offshore outsourcing offers a moderate degree of value creation generated from sustaining a competitive advantage.

Transformational offshore outsourcing can be described as a joint venture or strategic alliance with an offshore firm. This type of engagement contains shared risks, shared authority and the merging together of two firms, their routines and their processes. Sharing routines and processes necessitates the highest degree of collaboration between the client and vendor firms. There is an abundant potential for growth into new markets, access to new resources and capabilities, and access to innovative ideas. These three levels of offshore outsourcing engagements will be further discussed in chapter two as they relate to international business theories and the mode of governance chosen by the client firm.

1.4: An Introduction to Professional Service Firms

Offshore outsourcing of services is a specialized area of study because of the unique characteristics differentiating services from a manufacturing environment. Four characteristics differentiate the service industry from manufacturing: intangibility, inseparability, perishability, and heterogeneity (DiGregorio, Musteen, Thomas, 2008).

Intangibility refers to the lack of a tangible product when services are offered to clients. Moeller (2010: 361) defines intangibility as a “deed, performance, or action” undertaken by the service firm. The risk associated with intangibility is the difficulty is assessing the provided service quality. Often with professional service firms, service quality is defined on a project by project basis or as a moving target that cannot be generalized. For example, Ernest and Young, a Big Four Accounting Firm, has

seventeen of the Fortune 50 publically traded firms (Hamilton, 2012). As an example of assessing intangibility, their largest client, Wal-Mart, will assess the quality of service received from Ernst and Young based on evaluation criteria different than Exxon Mobil, another Ernst and Young Fortune 50 client. The intangibility of services is the foundation of knowledge-based offerings.

Inseparability refers to the simultaneous production and consumption of the service. In other words, the client is deeply involved in the completion of the offered service. Moeller (2010) explains inseparability as the service being sold prior to the work being completed. This is in contrast to goods which are produced first and sold second. As an example, Ernst and Young (E&Y) is contracted to perform accounting and audit services for Wal-Mart which are completed over an extended period of time. During this time, Wal-Mart must work closely with E&Y, sharing financial data, organizational processes, and granting confidential privileges to E&Y, their contracted service provider. This exemplified the concept of inseparability.

Perishability refers to the inability to “stockpile services” (Moeller, 2010: 362). In addition, perishability refers to the short-term, one-time usage of the provided services. Again using the example of E&Y, audit and tax services are completed annually with regular quarterly interval reporting as well. Once the period has ended, the service provided cannot be undone or changed; instead, the service must be repeated on a regular basis. This is in contrast to a tangible manufactured product in which the lifetime of the product can be long-term with repetitive use. Furthermore, the services provided to the client are time sensitive and dependent upon the willingness of the client to engage and cooperate with the service provider. Using the example of E&Y, publically traded

companies have strict date deadlines associated with the filing of audit reports, tax reporting and annual report required deadlines. The accounting firm must meet these deadlines or face significant penalties and potential loss of a major client. One reason professional service firms choose to outsource workload is to allocate the required work to meet tightly-scheduled deadlines. The time zone difference associated with offshore outsourcing is an added benefit relative to billable hours for the CPA firm. Offshore outsourcing expands the labor hour availability into 24-hour billable labor hours.

Heterogeneity refers to the spectrum of customized services offered to each client as well as the potential range of perceived quality received by the client. The uniqueness provided to each client is a characteristic of services, not seen in the production or consumption of tangible goods. Moeller (2010) explain heterogeneity as the non-standardization of projects. This is especially evident in engineering and management consulting: each project has unique specifications, requirements or designs that will not be exactly duplicated by another client. These unique service industry characteristics add a level of complexity to the governance and capabilities of service firms.

The above discussion characterized the service industry and differentiated services from manufacturing. Alternately, professional service firms (PSFs) are a specialized sub-sector of the service industry. PSFs maintain the differentiated service industry characteristics but also include an additional three characteristics specifically identified with professional services.

The service industry has a large spectrum of service offerings ranging from customer-based hospitality, tourism, insurance, and telecommunications to knowledge-based healthcare, accounting and tax, legal, and engineering. This spectrum runs the

gamut in the required interactions with the client, the knowledge intensity, the essential firm resources and the managerial skill sets required to successfully manage these service organizations. This dissertation directs the scope of the research to professional service firms, the knowledge-based organizations, such as accounting, management consulting, engineering, and information technology consulting.

In addition to the four characteristics of the service industry, PSFs have three additional distinguishing characteristics. First, the services rendered by professional service firms require advanced level of competency, including a greater degree of specialization of industry-specific knowledge within the labor force than required in the service industry. The competency and knowledge is embedded in individuals or firm processes; therefore, human capital becomes a critical element to PSFs (von Nordenflycht, 2010). As a knowledge-intensive firm, PSFs create value through the development of human capital (Hitt, Bierman, Schimizu, Kochhar, 2001). Employees and management, from both the client and offshore service providers, require advanced certifications or a higher-level educational degree to be employed by a PSF. The advanced knowledge criteria and the risks associated with the transfer of knowledge or exchange of information between the client and offshore service providers impact the importance of the relational governance. The exchange of information and critical need for communication stresses the importance of a collaborative relationship when PSFs are engaged in offshore outsourcing. Human capital becomes the primary firm resource creating value for the firm (von Nordenflycht, 2010; Malhotra & Morris, 2009).

The second unique characteristic, according to von Nordenflycht (2010), is the low capital investment required in the startup of PSF. The author is referencing tangible

capital such as manufacturing equipment. The largest capital outlay is the investment in high quality employees and management. Once again, the importance of human capital is emphasized as the key firm resource. In addition to having a high degree of technical knowledge, employees of professional service firms must also display strong interpersonal skills to interact with the clients, similar to that of the service industry. The ability to maintain current and adequate technological capabilities becomes important in PSFs offshore outsourcing.

The third characteristic of PSFs is a “professionalized work force” (von Nordenflycht, 2010: 163). This PSF characteristic is described as a self-regulated profession with clearly defined professional norms and standards of ethics. These norms guide the interactions between the client and service provider with known consequences for actions crossing the ethical dilemma line. The standards of ethics, coupled with the relational governance mechanisms of commitment, communication and information exchange help the client firm develop offshore outsourcing relationships to the benefit of the client firm. These three characteristics distinguish PSF from the service industry and further strengthen the importance of relational governance mechanisms.

1.4.1 Introduction to Offshore Outsourcing of Professional Service Firms

Professional service firms have evolved since their growth in the 1980's. Professional service firms (PSF) were organized with minimal hierarchical structure, high task autonomy, and decentralized authority (Malhotra & Morris, 2009). Then, the 1990's brought increased pressures of efficiency and managerial control as well as increased competition. PSF governance mechanisms and capabilities had to be examined and adjusted to meet the external pressures. As a result, PSFs shifted their focus to

specialization of offered services, centralization of authority, and a focus on core in-house competencies including utilizing external resources to generate increased performance (Cooper, Hinings, Greenwood, & Brown, 1996).

To meet the goals of (a) focusing on core in-house competencies, (b) control costs and (c) sustain a competitive edge in the changing professional service segment, U.S.-based professional service firms choose to engage in an offshore outsourcing strategy. Further encouraging the offshore outsourcing strategy was the growing highly-skilled labor market in lower cost offshore regions during a time when the home economy was struggling.

The number of professional service firms choosing to offshore outsource knowledge-based tasks has significantly increased in the past decade. This growth of offshore outsourcing by professional service firms will be exemplified through the presentation of the results of three different research studies published in the years 2009, 2011 and 2013.

First, Bandyopadhyay and Hall (2009) empirically studied the extent of outsourcing of tax preparation services by U.S. accounting firms to offshore locations. They subdivided accounting firms into their relative size with the results providing evidence of the magnitude of accounting firms offshore outsourcing tax preparation services. Their results show the following:

Table I: Offshore Outsourcing of Tax Preparation Services by U.S. Accounting Firms

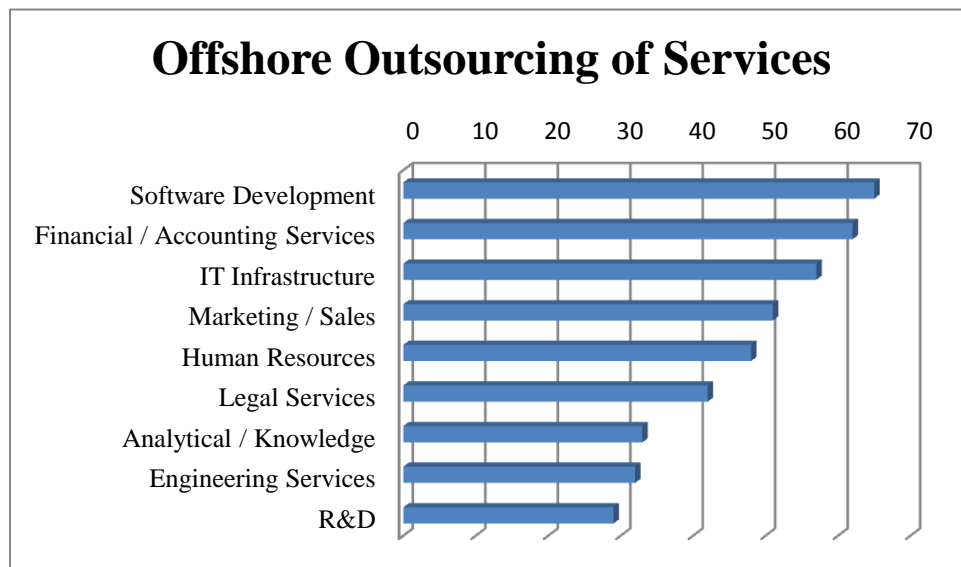
Firm Size	% of Firms	% Offshore Outsourcing
Local	47%	40%
Regional	41%	31%
National/International	12%	50%
Revenue Less than \$10 mil	36%	33%
Revenue Greater than \$10m	64%	43%

This table shows, as of 2009, 40% of local CPA firms, one-third of regional CPA firms, and half of large CPA firms are engaged in an offshore outsourcing relationship. A common misperception is that only the largest of firms are making the decision to offshore outsourcing; however, these results provide data showing at least one-third of smaller firms are utilizing this strategy to maintain a competitive advantage within their niche market (Bandyopadhyay and Hall, 2009).

Two years later, according to the 2011 Congressional Research Service (CRS) Report to Congress, offshore outsourcing of professional services started during the 2001 economic downturn as a means to improve efficiencies and increase profits. The strategic change to offshore outsourcing was facilitated by technological advances at that time. Technology eliminated the problems associated with geographical distance and the cost/benefit relationship shifted to the benefits of offshore outsourcing outweighing the costs. The 2011 CRS Report to Congress quantifies the magnitude of offshore outsourcing of professional service jobs. By 2015, the report predicts 3.4 million professional service jobs will be offshore outsourced (Levine, 2011: 6). This figure encompasses 13.7% of professional service jobs compared with 12% of offshore outsourced manufacturing jobs (Levine, 2011: 10).

Lastly, in 2013, Kate O’Sullivan from the Duke University Offshoring Research Network studied the offshore outsourcing of knowledge-based services. Figure 3, shown below, graphically illustrates the percentage of professional service firms electing to outsource services offshore with accounting and information technology assuming the second and third most outsourced professional services.

Figure 3: Offshore Outsourcing of Professional Services



This graph exemplifies the significant increase, compared to the 2009 results, in the percentage of firms opting for this strategy and strengthens the critical importance of research focused on professional service firms. This is not the wave of the future but a reality of the world market and today’s economy. This dissertation is limited to accounting, management consulting, information technology and engineering: three of the top nine professional services offshore outsourced and improves the contribution of the managerial implications. Offshore outsourcing by professional service firms has grown significantly in the past decade. The academic research is responding by thoroughly examining the unique aspects relative to professional service firms.

1.5: Purpose of Dissertation

The purpose of this dissertation is to address two research gaps involving the globalization of professional services through an offshore outsourcing strategic decision. Governing the relationship between the client and service provider, specifically engaged in knowledge-intensive professional service firm offshore outsourcing, has evolved over time. According to Vivek, Richey & Dalela (2009: 20), the need for governance mechanisms has changed from minimizing opportunistic behavior, to maximizing complementary resources, to building a long-term relationship built on a foundation of trust, commitment and communication. As a greater percentage of U.S. professional service firms make the strategic decision to offshore outsource, there is an increased need to improve the understanding of the governance mechanisms required for a successful relationship between the U.S. client and offshore service provider firms. Governance of the relationship, as well as understanding and monitoring the U.S. client firms perceptions of the offshore service providers capabilities becomes integral to handling the challenges faced by management in a geographically distant partnership. Yet, the U.S. client firm perspective of governance addresses a gap in the literature. In an article published in 2013, Deng, Mao, Wang indicate the need for the client perspective in the offshore outsourcing literature as an areas of necessary future research. This paper will address this future research suggestion from respected and prolific authors.

A second literature gap addressed in this paper is the comprehensive examination of the influence of collaboration on the vendor's service capabilities. Collaboration has been researched within the buyer-supplier relationship but has limited research in the client-vendor relationship. This will be the primary relational governance mechanism

examined in this study. Furthermore, there is extensive literature on the impact of relational governance on the performance of international partnerships (Wang & Wei, 2007; Chakarabaty, Whitten and Green, 2008; Zhou and Li, 2012). There is also prior literature on firm capabilities impacting the performance of international partnerships (Kotabe, Murray & Javalgi, 1998; Palvia et al, 2010). However, the comprehensive model examining the relationship between the relational governance mechanism of collaboration and service firm capabilities specifically influencing success of offshore outsourcing engagements has limited prior research, especially as it relates to professional service firms.

Based on the existing theories of transaction cost economics, resource based view and resource dependence theory, this paper will develop a comprehensive model to fill the research gaps linking collaboration to offshore service provider capabilities and the success of the client firm. More specifically, the objectives of this paper are threefold:

- (1) Examine the relationship between collaboration in the client-vendor relationship and the service provider's capabilities (as perceived by the client firm) in the offshore outsourcing relationship of professional services,
- (2) Develop a comprehensive model of service capabilities specific to professional service firms,
- (3) Assess the impact of service capabilities as antecedents to the client firm success.

The questions to be answered, relative to the research gaps are:

- What is collaboration and how is it measured?

- Is collaboration an essential governance mechanism to be developed between the client and vendor relationship?
 - Does collaboration influence the vendor's willingness to develop or strengthen their technological capabilities, as perceived by the client firm?
 - What are the service provider's technological capabilities?
 - Does collaboration influence the vendor's willingness to adopt of culture of learning, assessed from the client perspective?
 - How is the willingness ability to learn captured?
 - Does collaboration influence the ability to generate innovative ideas, as evaluated from the client firm perspective?
 - How are service firms innovative?
- Are the service provider capabilities interrelated?
 - Does technological capability influence the willingness to learn?
 - Does the willingness and ability to learn influence the degree of innovativeness?
 - Do technological capabilities influence the degree of service innovativeness?
- What key factors contribute to a successful offshore outsourcing relationship from the client perspective?
 - How is offshore outsourcing success evaluated and measured?
 - Do the vendor's technological capabilities influence the client's success in the offshore outsourcing relationship?

- Does the vendor's learning capabilities aid in a successful engagement from the client perspective?
- Does service innovativeness of the offshore service provider directly influence the success of the client firm outsourced engagement?
- Are the offshore service provider's capabilities statistically significant antecedents to a success of the client offshore outsourcing engagement?

1.6: Significance of Research

This dissertation will focus on professional service firm offshore outsourcing engagements, specifically accounting firms, management consulting, engineering firms, and information technology firms. The significance of this offshore outsourcing research in these areas has been previously discussed in the introduction, but will be summarized into a few major anticipated contributions:

1. An empirically validated comprehensive model that examines the client perspective of a successful offshore outsourcing client-vendor relationship.
2. Empirical confirmation of the importance of collaboration in a successful client-vendor relationship.
3. Confirmation of the importance of the vendor's capabilities on the client firm success.
4. Advancements in the offshore outsourcing literature from an empirical examination of collaboration, service capabilities and success.

The importance of this research can be viewed from the academic perspective or the managerial viewpoint. From an academic perspective, we need to take our research ideas from the current economic environment and respond with relevant literature to

support the business community in proving why these strategic choices have merit or weaknesses. We, as academics, need to be creative in the application of established international business theories and work to create new theoretical literature or empirically confirming existing theory. This dissertation adds to existing literature through the creation of a comprehensive model addressing collaboration in the offshore outsourcing relationship and the antecedents to the success of offshore outsourcing engagements from the client perspective. The client perspective focus of this dissertation has been a suggestion in the future research ideas of three different well-respected researchers.

Deng et al (2013) recommended future research focus on the client side of the offshore outsourcing relationship because of an unbalanced focus on the emerging market service provider perspective. A second future research suggestion comes from Battor and Battor (2010) addressing the need for further testing on the importance of service innovativeness and learning as capabilities within the services industry. These researchers acknowledge the capability research from the manufacturing perspective, but the stress the need to carry these capabilities into the intangible service industry. A third future suggestion proposed by Lahiri, Kedia and Mukherjee (2012) is addressed in this dissertation. These researchers are prolific in offshore outsourcing literature and recently examined management capabilities and partnership quality on the performance of the offshore outsourcing engagement. They suggested additional capabilities, beyond the qualities of the relationship, must be examined to effectively measure the success of the engagement. This dissertation addresses all of these suggested future research ideas.

Conversely, this is a critical issue from a managerial perspective as well. The importance of this strategic firm decision is discussed in an article by Ceri Hughes

(2012), a Global Knowledge Business Leader at KPMG, one of the “Big Four” accounting firms. In 2009, KPMG has created a Centre of Excellence for Offshore Outsourcing Support. The purpose of the Centre is to assist multinational firms in the major decisions such as which activities to offshore outsource and the choice of location issues. Ms. Hughes (2012: 31) identifies the “value propositions” used in the analysis of the decision-making process to offshore outsourcing as focusing on “core operating principles” and “avoiding the risk of multiple disconnected knowledge efforts”. Furthermore, Ms. Hughes references the importance of building “capabilities to reduce redundancy or waste” (2012: 31) as a means to maintaining a competitive advantage through the offshore outsourcing decision. The creation of this Centre for Excellence and its growth from one employee to over fifty employees in a four year time period illustrates the significance of offshore outsourcing and the need for this area of research from a managerial perspective.

In summary, this dissertation study makes three significant contributions to the existing literature on the offshore outsourcing engagements involving professional service firms. The first contribution is to improve the understanding of the relational governance mechanism of collaboration influencing service capabilities from the client perspective. The second contribution is to thoroughly investigate the antecedents of offshore outsourcing success, namely technological capabilities, learning capability and service innovativeness. The client perspective of the offshore outsourcing relationship, using professional service firms as the sample domain, is the overarching contribution.

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Overview

In the context of offshore outsourcing of services, different theories have been asserted to address the unique facets of this strategic decision. These theories are used to explain the underlying, core principles to the managerial decision-making process. For example, several theories address the reasoning for the outsourcing decision, the assessment of where to locate the outsourced services, the degree of the control in the outsourcing relationship, or the risks willing to be assumed in the outsourcing relationship. In the following segments of Chapter II, three theories will be reviewed relative to the success of professional service firms outsourcing offshore. Based the significance of the transaction costs, the high degree of asset specificity of professional services, and the uncertainties associated with the decision to offshore outsource, this paper will address Transaction Cost Economics (TCE). TCE addresses the governance mode chosen by the firm to compensate for the benefit/risk analysis based on the degree of interaction between the two firms. Resource-based View (RBV) will be reviewed relative to the firm resources and capabilities utilized to achieve and sustain a competitive

advantage in their market segment. The primary resource exploited in professional service transactions is the knowledge embedded in the personnel and processes of the firm. Resource based view explains the importance of firm specific resources, namely tacit and explicit knowledge, in achieving a sustained competitive advantage. The third theory is Resource Dependence Theory (RDT), a theory explaining the interdependencies between the client firm and the offshore outsourcing firm involved in the engagement. This theory explains the firm's willingness to share the risks, control, and authority with the intent of growth or survival and access to new markets. The development of each theory will be reviewed, followed by an explanation on the relation to professional service offshore outsourcing, and ending with a discussion of the limitations.

2.2 Transaction Cost Economics

Extant offshore outsourcing literature has frequently referenced transaction cost economics as the theoretical explanation for hypotheses testing. More recently, Tsang (2000), Holcomb and Hitt (2007), Javalgi et al (2009), Mudambi and Tallman (2010) and Bunyaratavej, Doh, Hahn, Lewin, and Massini (2011), have used transaction cost economics to explain their conceptual and empirical evidence of successful offshore outsourcing. Transaction cost economics (TCE) was developed by Williamson (1981), as an extension of the earlier work of Coase (1937), as a theory of firm governance. TCE is commonly applied to theoretically justify the governance mode chosen to manage the relationship between the U.S. based client firm and the offshore service provider engaged in an outsourcing engagement.

TCE is based on two critical assumptions, the drivers of transaction costs. If the two assumptions drive the transaction cost, then the concept of transaction costs must be

addressed first. More explicitly, transaction costs are the expenses incurred to negotiate, monitor, and enforce the contract between the two firms (Tiwana & Bush, 2007; Holcomb & Hitt, 2007). According to Williamson (2002: 174), “all complex contracts are unavoidably incomplete.” There will always be unexpected, unanticipated occurrences that require the parties to be flexible and willing to adapt. Governance mechanisms must exist to handle the challenges of one party’s failure to adapt or the breakdown between the parties, thus raising the transaction costs. Specifically, there are three transaction costs: negotiation, monitoring and enforcement costs (Williamson, 2002). Negotiation costs are considered to be ex ante transaction costs: the costs incurred to enter into the relationship, prior to the inception of the first business transaction. These costs are risky because the relationship could fail before given the opportunity to reap the benefits of the relationship. In contrast, monitoring and enforcement costs are ex post transaction costs, incurred to maintain the stability of the relationship and minimize the risks.

Williamson (1991) asserted that transaction costs occur because of imperfect and inefficient markets. The imperfect market characteristics arise because of resource mobility, heterogeneity in products, asymmetry of information and the complexity of contracts (Williamson, 1981; Nicholson, Jones, Espenlaub, 2006). Williamson concludes the ideal form of firm governance is that which minimizes the transaction costs in imperfect markets. Consequently, transaction cost economics provides the explanation for firms to minimize monitoring and enforcement costs through the governance mode decision process (Malhotra, Agarwal, Ulgado, 2003). The importance of TCE to the offshore outsourcing of professional services is the matching of acceptable risks and

magnitude of transaction costs to the chosen governance mechanism. Consequently, Williamson (2008) devised three governance modes specifically for outsourcing: market-based governance, hierarchy-based governance, or a hybrid governance mode.

Market governance is based on a competitive market price for the services provided, in which there is no dependency between the client firm and the service provider (Williamson, 2002). This governance mechanism is usually contractually-based, grounded in the awareness of legal ramifications if the parties do not comply with the contract, contains strong incentives for completion of outsourced tasks and minimal administrative controls (Williamson, 2008 and 1991). Williamson also proposes that the sources and volume of financing correspond to the governance level; thus market governance requires low financial support where the risk of financial loss is low or financial resources can be redeployed to alternative uses. The disadvantage to market-based governance is the high transaction cost: monitoring and enforcement are greatest with market-based governance (Williamson, 1991). This would be consistent with tactical offshore outsourcing engagements, which will be further discussed in the following sub-section.

The opposing end of the governance spectrum is hierarchy-based governance entitled the “unified firm” (Williamson, 2002: 183). This is necessary in understanding transformational offshore outsourcing engagements in which joint ventures or strategic alliance are formed between the two firms. The highest degree of cooperation and financial support is required in hierarchical governance models in which unified ownership exists. The financing is often equity based due to the ownership (wholly-owned or subsidiary) aspects of hierarchical governance. Williamson (2008: 9) states

hierarchical governance involves three additional characteristics: “coordinated adaptation of routines, internal dispute resolution, and shared bureaucratic cost burdens.” Disputes are handled internally within the management hierarchy of the firm and the risk of opportunistic behavior is not relevant due to the unification of the two firms (Noorderhaven, 1994).

The hybrid governance mode falls on the spectrum between market based and hierarchical. The critical nature of hybrid governance is the commitment to a long-term relationship between the offshore outsourcing parties (Williamson, 2008). Noorderhaven (1994) states trust, commitment and mutual expectations are critical to a successful hybrid relationship; however shortcomings exist in hybrid forms. Consequently, the trust, coordination, and commitment affect degree of risks being assumed by the client firm and thus the transaction costs; which in turn, influences the chosen governance mode.

Transaction costs fluctuate based on three dimensions: (1) asset specificity, (2) environmental and technological uncertainty and (3) the frequency of the contact in the relationship (Williamson, 1981; Holcomb & Hitt, 2007; Ellram, Tate, Billington, 2007; Javalgi et al, 2009). These three dimensions influence the mode of governance; consequently, supporting the type of offshore outsourcing engaged by the client firm, ranging from short-term, low risk, contractual relationships (tactical) to a fully integrated/wholly owned, high risk subsidiary (transformational).

Asset specificity refers to the “measure of non-redeployment” (Williamson, 2008). This measure is the value of an asset toward a specific transaction relative to the value the asset would have in an alternative use. In other words, asset specificity is the

cost of not deploying a resource to an alternate use if the asset is not being used to its full potential. In terms of offshore outsourcing of professional services, asset specificity refers to the critical nature of human capital required to address the heterogeneity of the required services. The basis of professional services is the knowledge-intensive human capital requirements; thus asset specificity is exceedingly high. In turn, high asset specificity determines the governance mode (Nicholson et al 2006).

Everaert, Sarens and Rommel (2010: 105) empirically examined TCE and outsourcing accounting functions. These researchers confirmed asset specificity of non-routine tasks is significant and negatively associated with outsourcing intensity. The greater the asset specificity and knowledge intensity, the less likely a firm outsources the services with market-based governance.

Transaction cost economics is founded on imperfect markets, uncertainty in the outcomes of transactions and potential for opportunistic behavior. The level of uncertainty is a response to the impact of environmental changes on the firm transactions. Environmental and technological uncertainty arises due to rapid changes in technology, changes in the market and changes in the availability of resources from competition (Griffith, Harmancioglu, Droge, 2009; Ellram et al, 2008). Technological uncertainty is highest in the earlier period of the relationship, as the offshore service provider learns the processes and services of the client firm (Nicholson et al, 2006). Time comes as an advantage in offshore outsourcing relationships: time to build trusting and committed relationships which reduces the risks. In addition, Williamson (1981) said the asymmetry of information between the client and offshore service provider will result in uncertainty; thus, influencing the level of offshore outsourcing engagement and the degree of

governance mechanisms chosen by each firm. The greater the uncertainty, the more intense is the need for control over the relationship; thus the greater the uncertainty, the more likely a strategic outsourcing engagement. Mudambi and Tallman (2010) acknowledge the increased uncertainty, information asymmetry and the required on-going collaboration is the leverage for professional service firms to offshore outsourcing. The most efficient governance mode will be adopted to minimize transaction costs and maximize efficiency in the offshore outsourcing decision. As an example, Holcomb and Hitt (2007) note selecting complex governance for a short-term, transaction-specific contractual relationship will result in increased costs and increased difficulty in the decision-making process.

The frequency of the transactions is commonly measured with the cost of the engagement: the more transactions, the higher the cost; however, technological advancements have changed the cost structure in service-based offshore outsourcing (Mudambi and Tallman, 2010; Ellram et al, 2008). Variable costs per transaction have declined whereas the fixed costs associated with starting a new service-based engagement have significantly increased (Ellram et al, 2008). With the proven statistics showing the growth of offshore outsourcing of professional services, this means offshore servicing has become less costly relative to the volume of transactions. The individual transaction fee has decreased and as a greater number of transactions are completed, the fixed cost per transactions also decreases in cost. Hence, frequency can no longer be evaluated purely on the cost of the engagement, creating an opportunity to create a new measurement method for the frequency of offshore outsourcing.

Now that there is an understanding of the three transaction costs, the three governance modes and the three dimensions influencing the magnitude of transaction costs, the assumptions can be more easily understood. The first assumption is the potential for opportunistic behavior, or maximizing self-motivated behavior at the expense of the other party (Seggie, 2012). These behaviors can include failure to share problems, covering up incomplete work, or recording inaccurate information to name a few. Monitoring and enforcing are transaction costs necessary to minimize the risks of opportunism; consequently, the risk of opportunism increases transactional costs (Seggie, 2012). To counteract this cycle and reduce transaction costs while minimizing risks, adopting a governance mode with increased control, trust and communication is recommended (Everaert et al, 2010; Nooteboom, 2004). This is pertinent to knowledge-intensive offshore outsourcing relationships in which the client firm resources become vulnerable to the loss of proprietary knowledge from the interactions with the offshore service provider. The second assumption is bounded rationality or the inability to fully specify all scenarios or outcomes in a contract with an offshore service provider (Williamson, 1981). In times of high uncertainty, decision makers are limited in their evaluation of alternatives because of the complexity of the situation and incomplete information (Griffith et al, 2009; Vivek et al, 2009). The client firms' limited decision making ability, based on bounded rationality, results in the client firm opting for arms-length transactions and short-term contract periods to reduce uncertainty and reduce the risk of opportunism (Tiwana & Bush, 2007). Consequently, TCE is frequently used to justify the use of tactical offshore outsourcing engagements.

2.2.1 TCE and Offshore Outsourcing

The anticipated outcome of tactical offshore outsourcing is a reduction in labor costs relative to the quality of internally generated work (Kedia and Lahiri, 2007). The issues with in-house quality can be the result of a lack of technological advancements, unavailability of local resources, or a shortage of skilled labor (Kedia and Lahiri, 2007). The intent is not to create firm value; instead, the partnership is short-term and focused on task-completion through the access to skilled, inexpensive labor. This relationship is typical of Williamson's market-based governance mode with the outsourcing of non-strategic, non-core activities (Javalgi et al, 2009). Tactical offshore outsourcing is commonly termed business-process outsourcing (BPO) in which routine front-office tasks are outsourced to overseas locations. The assumptions of TCE, opportunism and bounded rationality, are evident in tactical offshore outsourcing because of the short-term nature of the relationship. There is not sufficient time or control to develop a deep-rooted trust or commitment to the provider.

Collaboration entails shared practices, information exchange, and sufficient status from the service provider to contribute expertise to the client firm (Levina & Vasst, 2008). In a tactical relationship, these qualities of collaboration are not as critical as needed in the two other types of offshore outsourcing relationships. The client firm purpose for entering a tactical relationship is not necessarily to gain expert knowledge, but in contrast is primarily cost reduction or workload reduction. Bunyaratavej et al (2011), Kedia and Lahiri (2007) and Javalgi et al (2009) propose TCE as the theoretical justification for offshore outsourcing of services at the tactical level when cost reduction and improved efficiency are the anticipated outcomes for the client firm in the offshore

outsourcing engagement. However, these authors argue TCE does not have sufficient explanatory power for all outsourcing relationships. Instead, Bunyaratavej et al (2011) emphasize resource based view as necessary to justify the other types of offshore outsourcing because of the creation of value from resource specificity. Professional service firms are knowledge intensive and knowledge specific; therefore the asset specificity is high. An asymmetry of knowledge exists in PSF relationships causing uncertainty in the relationship. Hence, as the offshore outsourcing engagement becomes more complex, the PSFs require differing degrees of governance mechanisms to minimize the risks tied to TCE.

2.2.2 Limitations of TCE

There are several disadvantages to using TCE as the theoretical foundation of offshore outsourcing; thus “opening the door” for other theories to be applicable and discussed in the following sections. Nooteboom (2004: 506) defines bounded rationality as a “fundamental uncertainty concerning future contingencies.” However, bounded rationality implies decision makers are incapable of being fully informed. Nooteboom further asserts this is a mistake with TCE: the decision maker could predict future contingencies correctly, achieving efficiency in the relationship, and minimizing transaction costs. A second disadvantage of TCE is the emphasis placed on cost reduction as an explanation for the type of offshore outsourcing engagement adopted by the client firm (Tsang, 2000). Creation of firm value is not addressed in TCE: the primary focus is the minimization of transaction costs. Professional service firms must assess decision options on more levels than purely cost reduction. Lastly, a third criticism of TCE comes from Ghoshal & Moran (1996). These researchers have two

criticisms of TCE: (a) trust must be considered when examining efficiency in the relationship between two firms engaged in offshore outsourcing and (b) innovative activities of the firm are not accounted for in the TCE mode because innovation is not transaction specific. These criticisms support TCE as the strongest theory for tactical offshore outsourcing in which innovation and value creation are unlikely goals due to the transaction specific nature of tactical outsourcing. In conclusion, TCE can best be used to explain tactical engagements, but an unlikely explanation for the more advanced strategic and transformational engagements.

2.3: Resource Based View

Similar to TCE and its founder Williamson, resource based view is attributed to Jay Barney; however, earlier researchers first broached the research topic of the importance of firm-specific resources resulting in a competitive advantage for the firm. Penrose (1959: 24) was the first person to argue the firm was a “collection of productive resources” which, when exploited, created value to the firm leading to a competitive advantage. Several years later, Wernerfelt (1984) proposed the competitive advantage addressed by Penrose is achieved when the firm gains resources critical to the nature of the offered product or service. Building on the work of Penrose and Wernerfelt, Barney (1991) concluded the firm competitive advantage is achieved from valuable, heterogeneous, immobile and non-substitutable resources. The combinations of valuable resources allow for the accumulation of value to the firm through the superior performance generated from the firm-specific resources (Palvia, King, Xia, Palvia, 2010). Hence, firm-specific resources lead to a sustained competitive advantage through the strategic use of rare, valuable, inimitable, and non-substitutable resources.

RBV drives offshore outsourcing through the search for and access to complementary resources needed to create firm value and sustain competitive advantage (Roza, Bosch, Volberda, 2011; Holcomb & Hitt, 2007). This is beyond cost reduction and begins the research into value-creation, knowledge-seeking activities. The offshore service provider possesses complementary resources and capabilities, specifically in demand from the client firm. Consequently, the client firm must evaluate the service provider resources and capabilities for relevance and complementary benefits (Palvia et al, 2010). In addition, Jennex and Adelakun (2003) add the evaluation of the service provider's complementary resources, most especially in a knowledge-intensive offshore outsourcing relationship, must include a review of human capital, technology, and an efficient client interface. However, Javalgi et al (2009: 159) argue that the offshore opportunities of accessing inexpensive, complementary resources in emerging markets are not the only criteria for developing a competitive advantage; instead, the client firm must be able to identify, develop and protect the available resource to achieve the desired goals. Gaining access to resources is necessary but not sufficient in sustaining a competitive advantage. The process of integrating the processes and resources into the firm generates value.

Furthermore, RBV addresses the shortcomings of TCE. Bounded rationality and opportunism are accounted for in RBV model through the collaboration and sharing of resources between the parties in the offshore outsourcing relationship (Vivek et al, 2009). RBV acknowledges the potential for rational, managerial decision making through the learning process, thus contradicting the transaction cost model. Opportunistic behavior is reduced through the heightened relational governance mechanism, specifically trust and

commitment. Trust must be earned and nurtured in the relationship; therefore, resource based view requires a long-term outsourcing engagement to achieve the benefits.

Consequently, resource-based view is significant in the explanation of strategic offshore outsourcing. However, this dissertation focuses on professional service firms in which human capital and embedded knowledge are the key firm-specific resources.

While RBV focuses on firm resources, knowledge-based view, an extension of RBV, exploits knowledge as a specific firm resource which is embedded in the individuals and processes of the firm. KBV must be addressed in this dissertation because of the critical role of human capital in knowledge-intensive professional service firms, as well as the importance of developing the learning process. Grant (1996, p. 112) stated knowledge is the primary source of value creation in the firm. Organizations are “repositories of knowledge” created by individuals (Inkpen & Dinur, 1998: 456). The process of sharing knowledge between individuals and organizations creates firm value through the sharing of innovative ideas and services; therefore, the professional service firm offshore outsourcing relationship exploits the knowledge sharing process to improve client firm value. RBV and KBV heighten the importance of exploiting the core capabilities of the firm through the strategic outsourcing decision.

The basic assumptions of KBV, distinguishing the theory from RBV, include the dynamic view of knowledge and the firm. Knowledge is not a static resource, incapable of being expanded or changed, as presented in resource-based view. Instead, knowledge is malleable and integral to the learning process. Knowledge can be accessed from outside the firm or created internally from identification of problems and innovatively creating a solution (Nickerson and Zenger, 2004). The uncertainty involved in the

outcomes of knowledge creation differentiates KBV from TCE. In TCE, the governance mode minimizes the uncertainty; yet in KBV, the uncertainty is integrated into the creation of knowledge. Unlike RBV, decision-makers are capable of rational decisions because of knowledge and the ability to learn from one another (Nonaka, Toyama, Nagata, 2000; Nickerson and Zenger, 2004). The relationship between the client firm and the offshore service provider creates value through the identification of problems, mutually developing alternative solutions, and the implementation of new opportunities (Nonaka et al, 2000). These are the key qualities of a collaborative relationship focused on the generation of firm value as the output from the relationship. Knowledge based view, as it applies to offshore outsourcing, implies a bi-directional, mutual relationship between the client and the service provider; thus both firms can achieve value creation.

Two types of knowledge must be briefly discussed in the offshore outsourcing relationship of professional service firms: tacit knowledge and explicit knowledge. To understand how knowledge creates firm value in the offshore outsourcing relationship, Nonaka et al (2004) defines explicit knowledge as generalized, easily transmitted, codified knowledge. Explicit knowledge is commonly discussed in business process outsourcing, a lower level of outsourcing than this dissertation is addressing. Explicit knowledge is informational, step-by-step know-how. In contrast, tacit knowledge is embedded within the individual or firm processes, difficult to articulate or duplicate, and not easily transferred. Tacit knowledge also exists within the collaborative relationship and can grow through information sharing and the capability to learn within the firms (Hitt et al, 2001). This type of knowledge is expandable.

Hitt et al (2001) gives an excellent example of tacit versus explicit knowledge in professional service firms. Employees of professional service firms gain explicit knowledge through education and certification in their specific field of study. However, to achieve partner status within a professional service firm, tacit knowledge must be built from years of industry and firm experiences, deeply embedded in these individuals and integral to professional service firms (Hitt et al, 2001). Through years of experience, these employees gain tacit knowledge through the process of “learning by doing” (Hitt et al, 2001: 14). Hence, knowledge sharing and the capability to learn are essential to the sustainability of the professional service firm competitive advantage.

Under the knowledge based view, the professional service firm will offshore outsource professional-level knowledge-intensive jobs when the client firm is unable to efficiently use the existing in-house knowledge. The need for shared knowledge is the basis of outsourcing. This is supported by Spender & Grant (1996: 7) who state “knowledge is the primary resource upon which competitive advantage is founded and its transferability determines the period over which its possessor can earn rents from it.” This statement implies the client and service provider mutually benefit from the offshore outsourcing partnership. Consequently, the logic of offshore outsourcing is made possible by the assumption that resources are heterogeneously distributed across firms (Li, Boulding, Staelin, 2010). This allows the service provider to offer services and earn rents by tapping into the needs of the client firm. The offshore outsourcing relationship will allow the client firm to focus on core competencies, supplement its knowledge with access to highly skilled knowledge, increase efficiency, and sustain competitive advantage (Chang & Gurbaxani, 2012; Tiwana & Bush, 2007). Thus, RBV and KBV

explain the sustained competitive advantage generated from the creation of value in shared knowledge through the strategic offshore outsourcing engagement.

2.3.1 RBV and Offshore Outsourcing

Strategic offshore outsourcing is characterized by long-term commitments in which the firms work toward a mutual satisfaction and joint effort to create firm value for both parties (Vivek et al, 2009). The focus in strategic relationships is the building of trust, commitment, and a mutual desire to create firm value. Strategic offshore outsourcing cannot occur without the assumption of resource heterogeneity amongst firms. Tiwana and Bush (2007: 270) explain strategic outsourcing as creating a long-term shared understanding to exploit specialized firm resources through the integration of the complementary resources of the client's knowledge and the vendor's technical skills. This is commonly referred to as knowledge process outsourcing (KPO). This type of relationship has moved beyond non-core activities.

The focus of strategic offshore outsourcing is the creation of value through a collaborative relationship with knowledge transfer and the creation of innovative ideas. The knowledge transfer is high-level, tacit knowledge with significant strategic potential (Mudambi and Venzin, 2010; Mudambi and Tallman, 2010). Hence, the risks and uncertainties are expanded in part, due to the challenges of potentially reversing the decision.

Kedia and Lahiri (2007: 27) identify strategic engagements as “remaining locally responsive as well as globally integrative.” The global integration is driven by the offshore service providers cumulative experience and willingness to learn with the emerging economies standing out amongst other countries. Learning is the key strategic

process to create a sustainable competitive advantage through strategic offshore outsourcing (Kedia and Lahiri, 2007). Furthermore, the global integration sustains competitive advantage by filling client-firm resource voids with valuable, rare, inimitable and non-substitutable resources provided from the service provider.

Holcomb and Hitt (2007) propose strategic relationships allow management to focus on growth and innovation because of the reduction of transaction costs stemming from a declining information exchange asymmetry between firms. These authors specifically differentiate between strategic offshore outsourcing and strategic alliances in which risks are shared and common goals are established. Resource-based view and the extension to knowledge-based view are the foundational theories for strategic offshore outsourcing.

2.3.2 Limitations to RBV

There are several commonly expressed criticisms of resource-based view. Priem and Butler (2001) debate the definition of valuable firm resources by contradicting the notion that value comes from the firm. Priem and Butler (2001: 30) argue the value is exogenous to RBV and determined by the market environment. With value removed from the resource characteristic criteria, competitive advantage is more difficult to achieve and sustain. In addition, the characteristics of firm resources are generic and do not differentiate among the degree of rent production; therefore, the link between valuable resources and competitive advantage is weak at best (Priem and Butler, 2001). An added critique of RBV is that the heterogeneity and immobility of resources are not generalizable; thus, can only be achieved by the largest of firms with significant market share (Kraaijenbrink, Spender, Groen, 2010). These authors argue that if each resource is

unique to the firm, small and medium sized firms would be unable to compete based on availability of financial resources and market share. Also of importance are the critics who argue RBV is not a theory of the firm because RBV distinguishes traits between firms but does not explain the existence of the firm (Kogut and Zander, 1992). In response, Kogut and Zander (1992) began the knowledge-based view. KBV addressed several of the shortcomings of RBV. However, the weaknesses in resource based view do not minimize the importance of RBV toward strategic offshore outsourcing.

2.4: Resource Dependence Theory

In contrast to TCE and RBV, resource dependence theory (RDT) assumes the most complex relationship and accounts for the limitations of uncertainty and opportunism found in TCE. RDT also accounts for the weaknesses of RBV. As uncertainty and the risk of opportunism increases, the client firm will form closer, more interactive relationships to minimize risks (Pfeffer & Salancik, 1978; Fink, Edelman, Hatten & James, 2006; Javalgi et al, 2009). The client firm reduces uncertainty through shared control of core knowledge resources in transformational offshore outsourcing relationship through which both firms are redefined, unified or transformed into a new organization (Griffith et al, 2009; Kedia and Lahiri, 2007).

RDT focuses on the external environment of the firm (Javalgi et al, 2009). More specifically, RDT recognizes the importance of external resources and the need to form alliances to access resources external to the client firm. Holl, Zinn and Mor (1996) tested the resource dependence theory in the knowledge intensive health care field. Even though healthcare is not addressed in this dissertation, it maintains similar knowledge intensive characteristics relative to accounting and engineering professional services.

Thus, the results of the empirical analysis from Holl et al (1996) are relevant to this dissertation. These researchers state the external environment is defined by the exchanges between two unrelated, independent firms. A dependency develops from the exchange of resources; consequently the dependency is necessary for survival and growth. Firms are willing to alter the organizational structure and transform the boundaries of the firm to accommodate the new resources that will guarantee survivability and growth of market share (Holl et al, 1996).

Resource dependence theory has three factors integral to the degree of interdependency between firms: “resource importance, resource alternatives, and resource discretion” (Medcof, 2001: 1002). Resource importance and resource alternatives implies the greater the degree of importance of the resource and the fewer alternatives, the greater the interdependence of the client and service provider firms. Additionally Medcof (2001) states resource discretion implies the firm possessing the resource, with discretion over its usage, has greater control and power in the relationship. In summary, Medcof concluded there is a direct relationship between the degree of strategic importance of the resource and the interdependency between firms: the higher the knowledge-based resource, the greater the inter-firm dependency. Furthermore, an inverse relationship exists between the availability of alternative resources and the interdependency between firms: the greater the substitutability of resources, the less inter-firm dependency. Lastly, the degree of autonomous discretion in the usage of the resource is directly related to the interdependency. All three are directly associated with the power of the resource-controlling firm. These characteristics are apparent extensions of RBV characteristics such as the non-substitutable and inimitability.

Fink et al (2006) empirically examines two additional characteristics of external resources, namely technological resources and resource asset specificity. Their research empirically concludes asset specificity significantly influences the transformational formation of the client-vendor relationship while technological resources contribute less to the formation decision. The degree of asset specificity and knowledge-intensiveness of professional services allows Fink's research to be applicable to offshore outsourcing of professional services.

Transformational offshore outsourcing entails redefining the existing client firm through a mutually dependent partnership, sharing the risks, creating a quicker response to client needs, and responding to changes in the external environment (Kedia & Lahiri, 2007). According to Pfeffer & Salancik (1978), the client firms are dependent on partnered offshore service providers for strategic core resources, assistance in adaptation to rapidly changing external environments, and to sustain a competitive advantage. RDT is the primary theory to justify joint ventures and strategic alliances, or transformational offshore outsourcing engagements (Hillman, Withers & Collins, 2009).

A disadvantage to using RDT is the client firm loss of autonomy but this is offset by the mutual dependence of the client and offshore service provider, often resulting in the long-term existence of the relationship (Xia, 2011). Hence, RDT is an excellent justification for transformational offshore outsourcing.

The three theoretical frameworks explaining the offshore outsourcing of professional services, as detailed in the above sections, are summarized in Table II.

Table II: Summarization of International Theories, Governance and Strategic Capabilities

	Tactical	Strategic	Transformational
Theoretical Support	TCE	RBV	RDT
Goals	Cost Minimization High Quality of Work	Access to Complementary Knowledge, Create Firm Value	Redefine Firm, Growth, Greater Market Share, Shared Risk
Relationship Features	Short-term, Contractual, Arms-length Transaction-based	Long-term, Contractual, Knowledge Sharing	Long-Term Joint Ventures, Strategic Alliances
<u>Governance:</u>			
Collaboration	Low	Moderate	High
Commitment	Short-term	Long-term	Long-term
Communication, Information Sharing	Low to Moderate	Moderate to High	High
<u>Service Capabilities:</u>			
Service Innovativeness	Low	Moderate	High
Learning	Low	Moderate	High
Technology	Moderate	Moderate to High	High

Offshore outsourcing of professional services is a rapidly growing segment. The client firms' decision to utilize offshore outsourcing as a viable strategic decision is growing in popularity and helping firms achieve and sustain a competitive advantage. Table II depicts the relationship between international business theory, the type of offshore outsourcing, the relational governance mechanisms and the strategic capabilities discussed throughout this dissertation. The information presented in this table has been

proposed by extant literature and will be empirically examined throughout this dissertation.

2.5 Literature Review: Offshore Outsourcing Success

Offshore outsourcing success has been extensively discussed in prior literature as a multidimensional construct with the measurement of success dependent upon the outsourced activity and the anticipated benefit. The three most common dimensions of offshore outsourcing success are technological benefits, strategic benefits or economic benefits. Technological benefits is frequently used for the measurement of offshore outsourcing success when the primary activity is information systems outsourcing (Grover, Joong, Teng, 1996; Lee, Miranda, Kim, 2004; Lee & Kim, 1999) and refers to the firm attainment of advanced technological resources. The evaluation of success based on technological benefits is supported by the RBV theory. The outsourcing relationship success is gauged by the access to complementary resources not accessible to the client firm to aid the client in achieving a competitive advantage. Strategic offshore outsourcing has been addressed by Ren, Ngai, Cho (2010); Han, Lee, Seo (2008), or Lee (2001). Strategic success is achieved when the firm can re-focus its attention onto core business processes through the outsourcing of non-core activities. This type of success allows the firm to address new firm strategies, not previously focused on by the firm. Strategic success is assessed based on the improvements to the efficiency and effectiveness of the firm (Goo, Huang, Hart, 2008). Because of this assessment, RBV and network theory are considered the underlying justification. Economic success is more evident by its name. This type of success is evaluated on the identification of significant cost drivers and the improved control of costs. Economic success is clearly defined

through transaction cost economics. Outsourcing success is the organizational advantage gained through the outsourcing relationship. Swar, Moon, Oh, and Rhee (2012: 464) identify outsourcing success as the “degree to which predefined objectives are realized.” These authors further define the predefined objectives as technological, strategic or economic, remaining consistent with mainstream literature. Goo et al (2008: 479) has a slightly different approach to the measurement of outsourcing success with the “satisfaction with the intended benefits gained as the result of the outsourced activity.” At first glance satisfaction appears to be a new dimension established by Goo et al (2008) in their explanation of outsourcing success. Upon further review of the survey items used by other researchers, satisfaction is consistently one or two of the survey items. Reviewing Table III below, offshore outsourcing success is commonly measured with 8 to 10 survey items. In each of these measurements, satisfaction accounts for one or two of the measurement items. This dissertation study has adopted the eight strategic and economic dimensions of outsourcing success including the items addressing the satisfaction of the relationship.

Table III: Summary of Offshore Outsourcing Success Literature

Author	Year	Dimensions of Offshore Outsourcing Success	Number of Scale Items	Scale Adopted from Prior Research
Grover, Cheon, Teng	1996	Strategic, Technological, Economic	9	
Lee	2001	Strategic, Satisfaction, IT, Economic	9	Lee & Kim (1999)
Lee, Miranda, Kim	2004	Strategic Competence, Cost efficiency, Technology catalyst	9	Lacity & Willcocks (2001); Grover et al (1996); Lee (2001)

Han, Lee, Seo	2008	Relationship Capability, IT, Management Capability	8	Lee (2001); Bassellier, Reich, Benbasat (2003); Feeny & Willcocks (1998)
Goo, Huang, Hart	2008	Strategic, Technological, Functional	10	Lee, Miranda, Kim (2004); Lee & Kim (2005); Grover et al (1996)
Ren, Ngai, Cho	2010	Strategic, Technological, Economic	Details Not given	Grover, Cheon, Teng (1996); Lee & Kim (1999); Lee (2001)
Swar, Moon, Oh Rhee	2012	Satisfaction	3	Grover, Cheon, Teng (1996); Lee, Huynh, Hirschheim (2008); Rai, Maruping, Venkatesh (2009)
Schwarz	2014	Strategic, Technological, Economic	Conceptual	Grover et al (1996); Goo, Huang, Hart (2008); Lee (2001); Lee, Miranda, Kim (2004)

2.6 Literature Review: Relational Governance and Collaboration

According to Robichau (2011) there are at least 50 definitions of governance; however, all of the research agrees that governance is a multi-dimensional construct involving relationships, values and norms contained within the management of the firm. However, a distinction must be noted between relational governance and formal governance. Relational governance focuses on the values and norms evidenced in firm interactions and controlled by management, whereas formal governance focuses on contracts, legal agreements, and a clearly defined relationship per a contract. This paper

will focus only on the relational governance mechanism of collaboration in the offshore outsourcing relationship between U.S. professional service firm and an offshore outsourcing provider where collaboration is measured as a multidimensional construct comprised of commitment, information exchange and communication (Hoegl & Wagner, 2005), all of which are dimensions of relational governance.

Lacity, Khan and Willcocks (2009: 137) define relational governance as the “soft issues” of managing the offshore outsourcing relationship. Hoetker & Mellewigt (2009) define relational governance as a firm level mechanism allowing interaction between employees with the intent of advancing the client-vendor relationship including the minimization of the risk of opportunism. The underlying concept of relational governance is the coordination of multiple firms working toward a common goal. Hoetker & Mellewigt (2009) have empirically concluded knowledge-intensive firms require greater reliance on relational governance relative to other service firms. This heightened reliance on information exchange, commitment and communication is due to the nature of the service being tacit knowledge intensive.

According to Wang & Wei (2007: 649), relational governance is a “hybrid structure that allows exchange partners to adapt flexibly in responding to uncertainty.” The hybrid structure entails a combination of the relationship between partner firms and shared technology. Technology is essential as a means of governance according to Wang & Wei (2007); however, these authors hypothesize the relational aspect of the governance construct as multi-dimensional including trust, commitment, and joint actions. Several authors, each having a unique definition of relational governance, have just been reviewed; however, each researcher has the common thread of relational

governance used for the minimization of transaction cost risks, minimization of opportunistic risk and a means of monitoring and strengthening the relationship.

The majority of authors use trust, commitment and/or communication as dimensions in testing relational governance in the offshore outsourcing relationship. The third dimension of relational governance varies by researcher. Poppo, Zhou, Zenger (2008) and Olander, Laukkanen, Blomqvist, Ritala (2010) use collaboration as a multi-dimensional construct including flexibility, cooperation, and information exchange. Lee and Cavusgil (2006) identify the third dimension of governance as a multidimensional construct termed relational governance comprised of information exchange, communication and coordination. Furthermore, Goo et al (2009) identify the additional dimension of relational governance called relational norms. Relational norms include information exchange, flexibility, and conflict resolution. Lastly, Lacity et al (2009) measure relational governance with trust, communication, information exchange and cooperation. This is consistent with the literature of Hoegl and Wagner (2005) and Martin and Eisenhardt (2010) who acknowledge collaboration as multidimensional relational governance construct. Collaboration, as defined by Martin and Eisenhardt, is the “collective activity by two or more business entities to create economic value.” Richey, Adams and Dalela (2012: 35) describe collaboration as a “mutually shared process where two firms display a mutual understanding and shared vision with an aim of achieving collective goals.” Simatupang and Sridharan (2005) developed a collaboration index for supply chain networks. They defined the three dimensions of collaboration as information exchange, decision synchronization and incentive alignment. Decision synchronization entails the communication and coordination of decision making

processes; hence, decision synchronization is evaluated on the accuracy of the response in meeting the demands of the client firm. The accuracy and timeliness of the communication are critical components of this dimension. The third dimension, according to Simatupang and Sridharan (2005: 265), is incentive alignment: the process of sharing costs, risks and benefits of the relationship. Incentive alignment infers both firms will act in a manner beneficial to both parties because of the commitment between the two firms. Research confirms collaboration as a crucial element to the client vendor relationship. Consequently, Robichau's (2011) statement regarding the proliferation of definitions for relational governance is accurately assessed based on a review of the authors. Thus, this paper will use commitment, communication and information exchange as dimensions of collaboration, a relational governance mechanism.

Table IV, shown below, illustrates a listing of authors who utilized relational governance and the dimensions used to test the construct. This is not meant to be an exhaustive list, but a sampling of literature on relational governance in service-related offshore outsourcing partnerships. The importance of relational governance is heightened in professional service firms' offshore outsourcing due to their unique characteristics. Communication, commitment and information sharing are critical in the success of the offshore outsourcing relationship because of the intangible, heterogeneous nature of the service industry, where service quality is difficult to standardize. Moreover, these relational governance mechanisms are essential when the primary source of revenue is an intangible service provided from the knowledge embedded in employees, the firms' largest capital investment.

Table IV: Summary of Relational Governance Literature

Authors	Journal	Year	Type	Constructs
Faems, Janssens, Madhok, van Looy	Academy of Management Journal	2008	Conceptual	Trust, Collaboration
Poppo and Zenger	Strategic Management Journal	2002	Empirical	Open Communication, Information Sharing, Trust, Dependence, Cooperation
Hardy, Phillips, and Lawrence	Journal of Management Studies	2003	Case Study	Characteristics of collaboration
Lee and Choi	Journal of Management Information Systems	2003	Empirical	Collaboration: Information exchange, Communication, Shared Understanding
Simatupang and Sridharan	International Journal of Physical Distribution and Logistics Management	2004	Empirical	Collaboration Index: Information sharing, Decision Synchronization, Incentive Alignment
Humphries and Wilding	Journal of Marketing Management	2004	Empirical	Trust, Cooperation, Coordination, Collaboration
Hoegl and Wagner	Journal of Management	2005	Empirical	Communication, Commitment, Information Exchange
Sanders and Premus	Journal of Business Logistics	2005	Empirical	Collaboration as Information Exchange and Communication
Lee and Cavusgil	Journal of Business Research	2006	Empirical	Trust, Commitment, Relational Capital

Eng and Wong	Technovation	2006	Conceptual	Relational Norms, Trust, Commitment, Reputation, Control, Dependence
Wang and Wei	Decision Sciences	2007	Empirical	Trust, Commitment, Coordination, Joint Problem Solving
Gencturk and Aulakh	Journal of International Marketing	2007	Empirical	Trust, Flexibility, Commitment
Wang, Bradford, Xu and Weitz	International Journal of Research in Marketing	2008	Empirical	Trust, Authority, Contracts
Poppo, Zhou, Zenger	Journal of Management Studies	2008	Empirical	Collaboration, Trust, Information Exchange
Vivek, Richey, and Dalela	Journal of World Business	2009	Conceptual	Trust, Honesty, Benevolence, Reliability, Commitment, Diligence
Goo, Kishore, Rao	MIS Quarterly	2009	Empirical	Relational Norm (flexibility, information exchange, solidarity), Trust, Conflict Resolution, Dependence
Haried and Ramamurthy	Project Management Journal	2009	Conceptual	Trust, Conflict Resolution, Commitment
Hoetker and Mellewig	Strategic Management Journal	2009	Empirical	Open Communication, Information Sharing, Trust, Dependence, Cooperation
Olander, Laukkanen, Blomqvist, Ritala	Knowledge and Process Management	2010	Case Study	Trust, Commitment, Collaboration, Communication
Mani, Barua, Whinston	MIS Quarterly	2010	Empirical	Commitment, Joint Action, Conflict Resolution

Rai, Keil, Hornyak, Wullenweber	Journal of Management Information Systems	2012	Empirical	Information Exchange, Trust, Conflict Resolution
Richey, Adams, Dalela	Journal of Business Logistics	2012	Empirical	Collaboration: Information exchange, communication, Shared Understanding
Ramanathan and Gunasekaran	International Journal of Production Economics	2014	Empirical	Information sharing, satisfaction, transparency, collaborative planning, collaborative decision making, success

Collaboration has been identified in prior literature as a multidimensional construct built from information exchange, commitment and communication. Each dimension of collaboration has been examined in extant management or marketing literature. This study will begin with a discussion of the prior research addressing the dimensions of information exchange, commitment and communication. There is a fine line between information exchange and communication. Information exchange has been explained as the degree of communication between the client and the vendor in the offshore outsourcing relationship. The communication can range from informative know-how to proprietary knowledge (Swar et al, 2012; Mohr and Spekman, 1994). Information sharing brings together firms, building closer, longer-term relationships through “what” is shared. Additionally, information exchange, information sharing, knowledge sharing and knowledge overlapping are similar constructs, utilizing common items of measurement. Lee (2001: 324) identifies knowledge sharing as the “activity of transferring and disseminating explicit and tacit knowledge from one party to another.” Mohr and Spekman (1994) and Swar et al (2012: 464) identify information sharing as the

degree to which critical or proprietary information is communicated to the other party. Mao et al (2008: 483) explain information sharing as the depth of information exchanged between partners. In contrast, communication relates to the timeliness, relevance and accuracy of the information exchange: “when and how well” information is shared (Swar et al, 2012). The connection between information sharing and communication is visible from the case studies conducted by Haried and Ramamurthy (2009: 63) in which they concluded information exchange is a key relational governance mechanism enabled by the importance of effective communication. Moreover, Nordtvedt et al (2008: 717) argues the need for effective and efficient information exchange. Effective exchanges include useful information that can be comprehended by the receiving partner and evaluated based on the “degree to which goals are attained.” In contrast, efficient exchange entails the speed and timeliness of the exchange as well as the cost of the information exchange, commonly regarded as communication.

Commitment is the third dimension of a collaborative relationship. Relationships develop through sequential phases with commitment being the fourth phase of development (Dwyer, Schurr, Oh, 1987; Goo et al, 2009). These authors describe commitment as an explicit pledge for the continuation of the relationship. Additionally, they confirm commitment to contain three dimensions: inputs, durability and consistency (Dwyer et al, 1987: 19). Inputs imply the need for communication and dedicated resources to maintain a lasting relationship while durability implies the renewability of the relationship because of the receipt of mutual benefits. Consistency is the stability of the communication and dedication of resources. If the regularity of the inputs fluctuates, the relationship will suffer negative consequences due to uncertainty (Dwyer et al, 1987).

The article by Dwyer focused on organizational commitment in the buyer-seller relationship, a relationship similar to the offshore outsourcing relationship.

Commitment is the willingness to “walk the extra mile” to maintain the offshore outsourced relationship (Eisingerich, Rubera, & Seifert, 2009: 346). Mohr & Spekman (1994: 138) identified relationship commitment as the willingness to exert effort to “weather short-term problems to achieve long-term goals without the risk of opportunism.” Goo et al (2009: 127) refer to commitment in the offshore outsourcing relationship as the durability to continue the relationship, the willingness to be deeply involved in the relationship, and the confidence in the stability of the relationship. Commitment is evaluated by Wang & Wei (2007, p. 671) with items such as “we assumed renewal would occur, we felt part of a supplier family, and we were attracted to the things the supplier stood for.” The committed relationship is long-term oriented and creates value for the client firm. Thus, commitment is a relational governance mechanism essential to the success of the offshore outsourcing engagement, most especially in strategic and transformational offshore outsourcing. These two types of offshore outsourcing assume a long-term relationship in which the level of commitment is essential in the relationship.

In summary, information exchange involves the transfer of knowledge through the means of communication. Communication directs its focus to the timeliness and the accuracy of the exchanged information. Commitment is the willingness to work together toward a common goal in a lasting relationship. These dimensions constitute collaboration and are supported by Hoegl and Wagner (2005); Richey, Adams and Dalela (2012); Sanders and Premus (2005); Hoetker and Mellewigt (2009).

2.7 Literature Review: Service Capabilities

Strategic capabilities literature advances the resource-based view discussion of resources. Helfat & Peteraf (2003: 999) distinguish between a resource and a capability as follows: a resource is a tangible or intangible asset owned or managed by the firm; whereas a capability is the utilization of the resources to meet the firm goals. Yet neither resources nor capabilities are static, they evolve over time and are unique to each firm. Furthermore, based on the assumption of RBV that resources are immobile and heterogeneously distributed across firms, offshore outsourcing engagements introduce a new set of complementary resources for the client firm to utilize to meet the goals of the firm. The PSFs primary intangible resource is knowledge embedded in the individuals and firm processes; therefore based on Helfat & Peteraf's definition, the strategic capability becomes the effective exploration and exploitation of embedded knowledge in the vendor firm.

Strategic capabilities are the ability of management to “think and act strategically” in a changing external environment (Prahalad, 1983, p. 237). Prahalad extends the definition of external environment beyond the competitor to include the changing needs of the customer. This distinction is an important to PSFs where perishability and inseparability are critical characteristics. Professional service firms provide time sensitive, knowledge-intensive services for an external customer. Each customer requires a unique knowledge set, not standardized across customers, specific to its business entity to be delivered in a timely fashion. The PSF must develop the capability to remain flexible to interpreting and assimilating information from various customers in a consistently changing environment.

In addition, prior research by Leonard-Barton (1992) states strategic capabilities allows the firm to strategically differentiate itself to achieve a competitive advantage. The differentiation develops in four dimensions: “knowledge embedded in employees, technical systems, managerial systems, and values and norms within existing processes of the firm” (Leonard-Barton, 1992, p. 113). These four dimensions are not independent of one another, nor can one dimension alone lead to competitive advantage. Instead, to create competitive advantage, the four dimensions of strategic capabilities must be engrained within the firm daily interactions. The strategic capability develops when management can effectively blend the knowledge embedded within the employees with granting access to technological resources and offering the support to encourage generation of innovative ideas. Leonard-Barton (1992) contends when the four dimensions of strategic capabilities exist within the firm, employees are empowered to generate new and innovative ideas. These dimensions are carried into this paper as the dimensions used to define strategic capabilities of PSF engaged in offshore outsourcing: service innovation, management capability and technological capability.

2.7.1 Technological Capability

Technological capability requires an infusion of investment dollars and therefore takes additional resources to develop and maintain. The capability reflects the vendor firm’s ability and willingness to adapt to available technological advancements.

Unfortunately, technology is rapidly advancing to a point where remaining current on all new developments can be a daunting task. In contrast, many service providers are willing to accept the responsibility to maintain the highest technological capability to become an industry leader in the outsourcing arena. Afuah (2002) concludes the importance in

developing technological capabilities; however, even more important is to first understand which capabilities have greater value in the market. Once the core competency is created, a competitive advantage can be achieved and sustained across multiple markets. In support of Afuah's research, technological capability allows the service provider to exploit the accumulation of new knowledge and skills to create a competitive advantage (Zhou and Wu, 2010). Lastly, Richey, Tokman and Dalela (2010) assert technological capability is the "critical function in understanding outsourcing partners uniquely co-create value."

Lu and Ramamurthy (2011) examine technological capability as a three dimensional construct divided into technological infrastructure capability, technological business spanning capability and technological proactive stance capability. Infrastructure is measured based on the capacity of data storage, warehousing, connectivity and server capabilities. This dimension is not relevant to this dissertation study. Technological business spanning capability captures the strategic planning processes, management understanding the value of technology, and the development of a robust technological plan. This dimension is also not relevant to this study of offshore outsourcing. The third dimension is critical and encompasses the ability to remain current on technological innovations, seeking new ways to enhance the effectiveness of technology, and a willingness to experiment with new technological advances. These measurements of technological capability would be pertinent to the offshore outsourcing relationship and are adopted as items in the survey instrument developed for this study. Unfortunately, the literature on technological capability in an offshore outsourcing environment and its measurements are as diverse as they are sparse.

Table V: Summary of Technological Capability Literature

Author	Year	Dimensions of Technological Capability	Number of Scale Items	Scale Adopted from Prior Research
Bharadwaj	2000		Case Study	
Afuah	2002		Details not given	
Sanders & Premus	2005		4	Grover & Malhotra (1999); Kent & Mentzer (2003)
Zhou & Wu	2010	Acquiring, Mastering, Technological Innovation	5	Song, Droge, Hanvanich, Calatone (2005); Afuah (2002)
Richey, Tokman, Dalela	2010	Resource Complementary	5	Sarkar, Echambadi, Cavusgil, Aulakh (2001)
Lu & Ramamurthy	2011	Technological Proactive Stance	4	Bharadwaj (2000); Fichman (2004); Weill, Subramani, Broadbent (2002)
Noya & Canal	2011		Details not given	Afuah (2002); Mayer & Salomon (2006)
Prajogo, McDermott, Jayaram	2014	Degree of technological intensity and degree of customization	3	Schmenner (1986)

The underlying theory of seeking a vendor with advanced technological capability is rooted in resource based view. The client firm is searching for access to complementary resources to achieve or sustain their competitive advantage. This study adopted the one dimension from Lu and Ramamurthy (2011) as the most relevant measurement to professional service firm's offshore outsourcing relationship.

2.7.2 Learning Capabilities

The offshore service provider must possess the organizational culture and the ability to learn, most especially in the knowledge-intensive field of professional service firms. Yet this is not a one-time acquisition of knowledge or skills. More importantly, learning capability is dynamic and must evolve over the course of the relationship. There is an abundance of literature on organization learning, but there is not one consistent definition.

Learning capability is defined by the motivation of the vendor to learn new skills and new knowledge (Nordtvedt, Kedia, Datta, Rasheed, 2008). But learning capability is a double-edged sword: it can enhance or jeopardize the offshore outsourcing relationship. Simonin (2004: 409) states learning capability “captures the degree of desire for internalizing the partner’s skills and competencies.” Simonin stresses this is not the passive accumulation of competencies, but an act of collaboration meant to guide the future relationship. The definition according to Fiol and Lyles (1985: 811) is “the development of insights, knowledge, and associations between past actions, the effectiveness of those actions, future actions.” Baker and Sinkula (1999) assert learning capability requires the service provider to eradicate old perceptions and biases and develop an understanding of the cause and effect of their proactive willingness to learn new knowledge. This research was advancing the prior research from 1997 in which

Furthermore, Jensen (2009: 183) examined the learning process in an offshore outsourcing relationship of advanced services and stated the identification of “who needs to learn what and how” is critical in the outsourcing relationship. He examined these

questions in a longitudinal case study of three firms. The conclusion was the implications of the service provider's intent to learn were bigger than anticipated in altering the strategic course of the offshore firm. The offshore service provider willing to embrace learning experienced an essential change in the client firm perception: the client firm entered the relationship for cost and stayed for the quality. Whitaker, Mithas and Krishnan (2010) also examine organizational learning in business process outsourcing engagements by recognizing the unique challenges to outsourcing such as communication, coordination, and transfer of outputs. Overcoming these challenges influences the service provider's ability to learn and impacts the overall relationship between the client and vendor. The focus of this study is on professional service firms with high knowledge intensity and with specific skill set requirements. The above discussion on learning capability exemplifies the importance of the service provider's ability and willingness to be open-minded and committed to learning. These are the two dimensions to be adopted by this study. Table VI is a summary of the learning capability literature.

Table VI: Summary of Learning Capability Literature

Author	Year	Dimensions of Learning Capability	Number of Scale Items	Scale Adopted from Prior Research
Sinkula, Baker, Noordewier	1997	Shared vision, Open mindedness, Commitment to learn	11	
Baker & Sinkula	1999	Shared vision, Open mindedness, Commitment to learn	18	Sinkula, Baker, Noordewier (1997)

Simonin	1999	Commitment to learn	2	
Panayides	2007	Shared vision, knowledge sharing, Commitment to learn	12	Sinkula, Baker, Noordewier (1997); Hult & Ferrell (1997); Calantone, Cavusgil, Zhao (2002)
Nordtvedt, Kedia, Datta, Rasheed	2008		4	Szulanski (1996); Simonin (2004); Mowery, Oxley, Silverman (1996)
Bustinza, Molina, Gutierrez	2010	Open mindedness, Commitment to learn	4	Garcia-Morales (2007)
Park, Lee, Morgan	2011	Information selection, knowledge sharing, knowledge making	23	Newly developed scale but based on Baker & Sinkula (1999); Sinkula (1994); Bell, Whitwell, Lukas (2002)
Deng, Mao	2012	Interaction experience, knowledge articulation	4	Tsang (1999); Inkpen & Currall (2004); Doz and Hamel (1998)
Deng, Mao, Wang	2013		4	Tsang (1999); Inkpen & Currall (2004); Doz and Hamel (1998)

2.7.3 Service Innovativeness

Innovativeness is usually associated with the generation of new products or improvements made to existing tangible products. This dissertation study has the narrow scope of professional services in which innovativeness is more difficult to conceptualize. There is a slowly improving research literature stream on service innovativeness and advances to service offerings to differentiate service firms. Yet, in contrast, Bertrand and Mol (2013: 751) assert innovativeness within an offshore outsourcing relationship has been ignored in academic research. This has made the operationalization of the service

innovativeness construct challenging due to the need to generalize from non-professional services or product innovation.

After an extensive literature search, the terminology “innovative capability” has only been expressed by Charterina and Landeta (2013: 23). These researchers distinguish between innovativeness as the open-minded to new ideas versus innovative capability as a “cultural proclivity toward appreciation of innovativeness.”

Service innovativeness has been examined in three dimensions: process innovation, technological innovation, and organizational innovation (Van der Aa, Elfring, 2002; Cainelli, Evangelista, Savona, 2006; Nielsen & Nielsen, 2009). Process innovation requires the integration of dissimilar but complementary knowledge from different business departments into the development of new methods of conducting business (Nielsen and Nielsen, 2009). Extant literature on operational innovation reports undeveloped and inconclusive results (Van der Aa and Elfring, 2002) yet more recently Oke and Kach (2012) specifically addressed this type of service innovation. Operational service innovativeness is the ability of the service provider to sense, respond, and leverage internal and external knowledge into new processes (Oke and Kach, 2012).

Bertrand and Mol (2013) argue innovativeness is easier to develop in offshore outsourcing relationships because innovation requires heterogeneity of inputs. A single firm is more likely to experience homogeneity with the employees, backgrounds and experiences compared to two independent firm uniting two heterogeneous organizations. They empirically conclude outsourcing influences product innovativeness but not process innovativeness because process innovativeness is globally standardized.

Lastly, Hogan, Soutar, McColl-Kennedy and Sweeney (2011) developed a scale for professional service firms innovative capability. This new scale development is consistent with the narrow scope of this dissertation study. Hogan et al (2011: 1266) develop a holistic definition of innovative capability from the limited available research: “firm's ability, relative to its competitors, to apply the collective knowledge, skills, and resources to innovation activities relating to new products, processes, services, or management, marketing or work organization systems, in order to create added value for the firm or its stakeholders.” They specifically differentiate service innovation from manufacturing based innovativeness. From this definition, these researchers identify three dimensions unique to professional service firms: client focus, marketing focus and technology focus. Client focused service innovativeness is the service providers ability to provide unique benefits superior when compared to competitors. The unique benefits include meeting the client demands in novel ways. Client focused innovation was identified as the most significant contribution to professional service firm innovativeness. These survey items were adopted for this dissertation study. The literature review of service innovativeness is summarized in Table VII.

Table VII: Summary of Service Innovativeness Literature

Author	Year	Dimensions of Service Innovativeness	Number of Scale Items	Scale Adopted from Prior Research
Calantone, Cavusgil, Zhao	2002	Behavioral, Organizational	6	Hurt, Joseph, Cook (1977)
Nielsen & Nielsen	2009	Process	3	Newly developed
Hogan, Soutar, Kennedy, Sweeney	2011	Client focus, Marketing focus, Technology focus	13	Wang & Ahmed (2004); Nasution & Mavondo (2008)
Oke and Kach	2012	Operational	3	Hammer (2004)
Bertrand & Mol	2013	Product, Process	Details not given	
Charterina & Landeta	2013	Product	4	Capon, Farley and Hubert (1988)

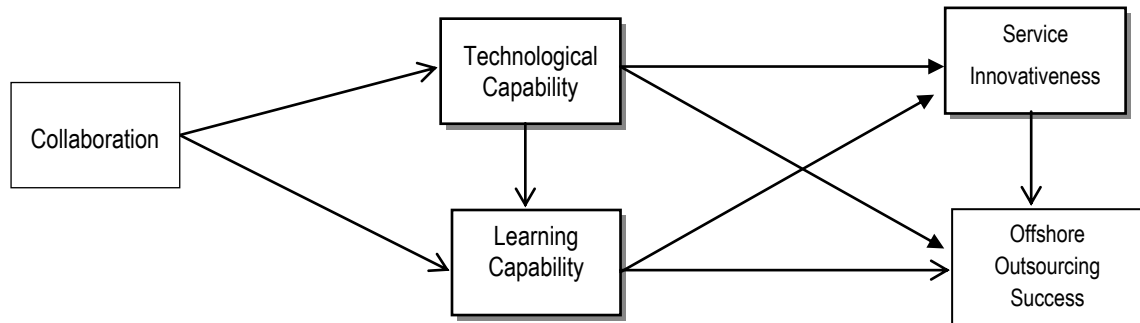
CHAPTER III

MODEL AND HYPOTHESIS DEVELOPMENT

3.1 Overview

This dissertation study has the primary purpose to contribute to the offshore outsourcing literature within the scope of professional service firms. The first contribution is to examine the influence of the collaborative client-vendor relationship on the service capabilities of the offshore service provider in an offshore outsourcing engagement between professional service firms. This study will use the U.S. client perspective. More specifically, the U.S. client will evaluate the influence of a collaborative relationship on the service capabilities of the offshore service provider. A collaborative relationship is necessary to develop and strengthen the relationship between the U.S. client firm and the offshore service provider. Second is to investigate the relationship of the service capabilities of the offshore service provider on the success of the offshore outsourcing engagement as assessed by the U.S. client firm. In other words, the U.S. client firm assesses and evaluates the service capabilities of the offshore service provider to determine the potential for achieving success in the relationship. The conceptual model, as seen in Figure 4, is the result of a thorough literature review.

Figure 4: Theoretical Model of Dissertation



3.2: Collaboration Hypotheses

3.2.1: Hypothesis 1a: Collaboration and Technological Capability

Collaboration is measured as a three dimensional construct; therefore, the relationship between collaboration and technological capability will be examined at both the dimensional relationships and the construct level. The dimensions of collaboration are: information exchange, communication and commitment. The relationship between collaboration and technological capabilities is grounded in RBV theory. The client firm is seeking complementary resources to achieve or sustain competitive advantage. The vendor firm is willing to invest in the necessary technological resources due to the committed, cooperative, collaborative relationship with the client firm and allows the vendor firm increased flexibility in reacting to the client firm needs (Richey, Adams, Dalela, 2012)

The relationship between information exchange and technological capabilities was empirically confirmed as significant according to Zahra, Neubaum and Larrenta (2007: 1072) and supported with the knowledge based view theory of the firm. They examined this relationship in a knowledge-intensive, geographically diverse,

decentralized management structure of family owned firms and noted these two challenges differentiated their research from the typical family owned firm literature. The discussion supporting this empirically significant hypothesis is the importance of information exchange in a decentralized management organization influencing the need for sophisticated technological capabilities to supplement the absorption and storage of the exchanged information (Zahra et al, 2007).

In 1987, Dwyer, Schurr and Oh conceptualized the buyer-supplier relationship into five critical phases: communication and commitment are two of the five phases critical to the success of the relationship. The relationship cannot be sustained without bilateral communication of goals, resource availability, and priorities. As the relationship changes over time, new resource demands will arise from the fluctuation of the buyer seller relationship. Granting the resource demands verifies the level commitment between the parties. Commitment is a unique and distinguishing phase because of the intentionally willingness to engage resources or invest additional resources to maintain the relationship. In professional service firms, technological resources are essential in the interaction between the two firms to minimize transaction costs and the risks of uncertainty and opportunistic behavior.

The relationship of collaboration and technological capabilities also maintains the support of academic literature; yet the results are inconclusive. Sanders and Premus (2005) empirically confirmed the collaboration – technological capability relationship in the buyer-supplier manufacturing environment. Collaboration is the result of human interaction in the form of information exchange, communication, coordination, and mutual understanding (Sanders and Premus, 2005). The collaborative relationship

influences the willingness to support and invest in technological capabilities as confirmed by this research. In contrast, Richey, Adams and Dalela (2012) used the retail service industry to examine a similar relationship. These researchers assert technological relationship; therefore, they hypothesized a direct relationship between collaboration and technological capability. The results were inconclusive. Kim and R.P. Lee (2010) received similar inconclusive results when examining the relationship using supply chain executives as the sampling domain.

Based upon the literature support described above, this study hypothesizes the relationship between collaboration and technological capability to be:

H1a: Collaboration, from the client perspective, is positively related to the technological capability of the offshore service provider in the relationship between professional service firms.

3.2.2 Hypothesis 1b: Collaboration and Learning Capability

The relationship between collaboration and learning capability has conflicting results in academic literature but all of the literature is supported by the theory of KBV. Learning capability is the ability to combine the accumulation of past experiences with the current business environment and the transfer of knowledge into a firm level capability that brings a competitive advantage. In 1996, Inkpen published an article in the California Management Review saying the competitive business environment is radically changing and management must consider strategic changes in response to the environment. The recommended strategic changes were forming “linkages” or collaborative joint ventures to foster learning capability (Inkpen, 1996: 128). Another

conceptualized publication from 1996 addresses this relationship within the biotechnology field. Learning is a social process which is profoundly linked to the conditions under which the firm learns; consequently, learning capability is a function of the degree of collaboration between the firms (Powell, Koput, Doerr, 1996: 118).

Collaboration is not a means of compensating for lacking skill, nor a single transaction; rather it is a dynamic and synergistic relationship leading to the creation of knowledge (Hardy, Phillips, Lawrence, 2003). Through a case study approach of business-to-business relationships, these authors propose collaboration with high degrees of interaction, communication and commitment leads to high learning capability. Yet research conducted using High Technology SME's from the Netherlands found this relationship insignificant. Nijssen, Hillebrand, de Jong and Kemp (2012) anticipated higher intensity collaboration would result in stronger learning capability due to the relationship fostering exchanges of ideas and opportunities to learn. Their empirical findings conclude collaboration significantly influences learning capability only when there is a high dependency between the two firms. This would infer this relationship to exist in strategic or transformational offshore outsourcing but not at the tactical level. A review of the literature discusses this relationship at the joint venture, strategic alliance level of partnership; however, this dissertation study hypothesizes the relationship as:

H1b: Collaboration, from the client perspective, is positively related to the learning capability of the offshore service provider in the relationship between professional service firms.

3.3: Technological Capability Hypotheses

3.3.1 Hypothesis 2a: Technological Capability and Learning Capability

There is limited research on the relationship between technological capability and learning capability. In 2008, Song and Shin published an article in the *Journal of International Business Studies*, a leading international business publication. This article researched the influence of technological capabilities from the home country multinational corporation semiconductor firm on the learning capability of the host country subsidiary. The semiconductor industry was chosen because of its innovativeness, its level of technical competency required, and the degree of global outsourcing relationships. Relationships were examined from firms in North America, Europe and Asia. Song and Shin (2008) hypothesize an inverted-U relationship between technological capability of the parent firm and learning capability of the offshore subsidiary. They assert that the ability to identify, acquire and assimilate knowledge, or the capacity to learn, is related to the sophistication of technological capabilities (2008: 294). They further declare a direct relationship between the strength of the home country technological capability and the strength of the learning capability from the host country. Both hypothesized relationships were found to be significant. The inverted-U relationship is justified with the statement that prior literature has only focused on the source of competitive advantage from learning capability but has never acknowledged the negative side (2008: 300). At some point, according to Song and Shin, firms reach a threshold level in which technological capabilities no longer influence learning capability.

A study of Chinese businesses from Yu, Dong, Shen, Khalifa and Hao (2013) supports the relationship between technological capabilities and learning capability. These researchers define learning capability as the ability of the firm to “harness the intellectual and social capital of individuals to realize the firms potential” (Yu et al, 2013: 2509). Using KBV theory as support, these authors empirically conclude a significant relationship between technology and learning based on the need to develop technological capabilities to process and integrate new knowledge into the firm.

Based on the above noted research, this dissertation study hypothesizes the following:

H2a: Technological capability is positively related to the learning capability of the offshore service provider, from the client perspective, in the outsourcing relationship between professional service firms.

3.3.2 Hypothesis 2b: Technological Capability and Service Innovativeness

Researchers use RBV to justify the use of technological resources to yield a competitive advantage through the generation of innovative ideas. When a firm builds its technological capabilities, it invests significant resources which involve the accumulation of knowledge, training, and discovery of new ways of doing business (Zhou and Wu, 2010). The accumulation of technological capability allows firms to experiment with innovative ideas and designs; however, this cannot increase indefinitely (Zhou and Wu, 2010). According to these researchers, organizational inertia will discourage innovativeness if the technological capabilities are well established. Hence, Zhou and Wu confirmed these relationships between technological capability and service

innovativeness in their examination of outsourcing of high technology sectors of China, specifically information technology, telecommunications, and electronics. This dissertation will generalize these results to professional service firms due to the similarities between these highly skilled, technical industries.

In contrast, Vijayasarathy (2010) did not find a direct relationship between technological capability and service innovativeness when using supply chain management as its sample domain. These results can be due to the lower degree of knowledge-intensity in supply chain firms.

Lastly, in support of the hypothesized relationship, is a recently published longitudinal case study conducted by two gentlemen from Harvard on the relationship between technological capabilities and innovativeness. The first part of the study examined a firm outsourcing one component to an offshore supplier. Several years later, the same firm expanded the outsourcing to multiple suppliers to further stimulate innovation. Each supplier was given a “technology development plan” from the client firm with degrees of implementation of technological guidelines. The result of the case study concluded technological capability significantly influences the degree of innovativeness generated by the supplier. Based on the supporting literature, this dissertation study hypothesizes the following relationship:

H2b: Technological capability is positively related to the service innovativeness of the offshore service provider, from the client perspective, in the outsourcing relationship between professional service firms.

3.3.3 Hypothesis 2c: Technological Capability and Offshore Outsourcing Success

Technological capability, as proposed by Kalaighnam & Varadarajan (2012), is specific to the industry in which the firms are operating. According to these two authors (2012, p. 353), technology intensive firms require specialized technological assets because of the lack of standardization of services and the need for proprietary knowledge. Their definition of technology intensive firms encompasses professional service firms in the lack of standardized services. As a result, they propose the technological capability will positively influence offshore outsourcing success. Welter, Bosse, & Alvarez (2013) hypothesized technological capabilities will have a positive influence on market value (strategic success). This research was conducted in the biotech industry but the hypothesis was not empirically supported. In contrast, Weigelt (2009) stated the rapid and significant changes in technology have resulted in firms outsourcing of technological services to keep pace with the changing environment. He refers to technologies as assets that improve processes in areas requiring specialized knowledge. As the firm increases outsourcing of technology for process improvement, the lower the success of the client firm as supported in Weigelt's (2009) empirical study. Conversely, Weigelt hypothesized if the client firm is as technologically capable as the offshore service provider in the outsourcing relationship, the relationship will be strategically successful. This hypothesis was significantly positive using data regarding online banking services and performance measured as ROA and ROE. As a summary of this research, if technological asymmetry does not exist, technological capability can positively influence firm strategic success.

Based on the review of prior literature, we hypothesize a relationship between technological capability and offshore outsourcing success as:

H2c: Technological capability of the offshore service provider is positively related to the offshore outsourcing success of the client firm in the outsourcing relationship between professional service firms.

3.4 Learning Capability Hypotheses

3.4.1 Hypothesis 3a: Learning Capability and Service Innovativeness

Learning capability is the ability of the firm to create and use knowledge, the degree of which the firm is willing to promote learning as an investment, and its commitment to enhance competitive advantage (Calantone, Cavusgil, Zhao, 2002). In the same 2002 article, these three prolific authors hypothesized the relationship between learning capability and innovativeness using US manufacturing and service industries. The relationship was significantly supported and the authors conclude that a positive learning environment encourages employees to develop new skills and challenge the norms of the business; thus promoting innovativeness.

More recently, Nasution, Mavondo, Matanda and Ndubisi (2011) examined the significance of learning capability on innovativeness in the Indonesian hospitality service industry. Nasution et al (2011: 338) references and utilizes the Baker and Sinkula (1999) innovation scale, the research base for this dissertation study, in acknowledging the influence of learning capability on the ability to “think outside the box,” leading to potential for innovativeness. The empirically based conclusion shows there exists a significant relationship between learning and innovativeness.

One additional publication, relative to this hypothesis development, must be explored. Anderson, Espinosa, and Suanes (2011) examined innovation in services, acknowledging the unique characteristics of the service industry. In professional services, tacit knowledge is difficult to communicate yet influenced by the organizational culture and cooperation among joint venture partners. Thus learning capability within professional service firm joint ventures must stem from an acceptable culture of open mindedness and willingness to learn. Anderson et al (2011: 2027) empirically confirms this culture positively influences innovation and in the current economic climate, innovativeness is vital to sustaining a competitive advantage.

H3a: Learning capability is positively related to the service innovativeness of the offshore service provider, from the client perspective, in the outsourcing relationship between professional service firms.

3.4.2: Hypotheses 3b: Learning Capability and Offshore Outsourcing Success

As was previously stated, further research is necessary in the area of learning capabilities of professional service firms. Storey and Hughes (2013) empirically tested the relationship between the organizations learning capability and the success of the organization. “Learning capability is a necessity, underpins the value of the firm and is key to competitive advantage” according to Storey and Hughes (2013: 841).

Unfortunately, this study did not encompass an offshore outsourcing relationship; however, professional service firms were examined. They concluded a significant positive relationship. Bustinza et al (2010) examined the relationship of learning capability on outsourcing success using knowledge-based service firms in Spain. These

researchers identified learning capability as the ability to create and acquire knowledge such that it changes the behavior of the firm to reflect the new knowledge (2010: 26).

Not only is learning necessary to achieve a competitive advantage, according to Bustinza et al, learning is important in avoiding uncertainty. Their results showed a significant positive relationship between the organizational capability to learn and success in an outsourcing (not offshore) relationship.

Furthermore, Deng (2012) examined learning capability on performance; however, performance was measured with only one dimension: cost control. Cost control is also one of the eight dimensions of success. Learning from the client improves the vendors competence, efficiency, and quality of the delivered services; thus impacting the performance relationship (Deng et al, 2013: 7). Understanding this aspect of the study, Deng (2012) empirically confirmed learning capability and performance. Lastly, Noya, Canal and Guillen (2013) researched the absorptive capacity of the client firm engaged in R&D outsourcing on the success of the engagement. Absorptive capacity is the firm's ability to recognize, assimilate and transform new information for the benefit of the firm (Cohen and Levinthal, 1990). Even though absorptive capacity has higher-order capabilities than learning capability, it is useful to note Noya et al (2013) research. These researchers assert the higher the absorptive capacity, the greater the vendor will perform the outsourced activities due to improved coordination and communication. Hence, the hypothesized relationship is significantly confirmed that when outsourcing requires a high degree of proprietary knowledge, the offshore service provider must be prepared to exploit this knowledge to the benefit of the client firm success (2013: 71). Thus, based

on the above literature support, we hypothesize the relationship between learning capability and offshore outsourcing success.

H3b: Learning capability of the offshore service provider is positively related to the offshore outsourcing success of the client firm in the outsourcing relationship between professional service firms.

3.5 Hypothesis 4: Service Innovativeness and Offshore Outsourcing Success

Innovative capability cannot be acquired through purchase instead it is dependent on the accumulation of knowledge over many years. This statement comes from Hoecht and Trott (2010: 678) who conceptualize the critical nature of innovativeness in service firms. They stress that that outsourcing solely for cost reduction purposes is short-sighted and will harm the firm from the inherent risks of eroding the knowledge base of the firm. Instead, the firm should focus strategies on developing organizational knowledge through multiple outsourcing engagements with a very limited number of offshore service providers, if possible through ownership or transformational outsourcing. Yet these ideas were only conceptualized and not empirically tested. Kotabe, Murray and Javalgi (1998) examined innovation of core services compared to innovation of supplementary services and their influence on success. Each of these constructs was also examined from domestic versus foreign outsourcing. The focus of this dissertation is offshore outsourcing; therefore, only the foreign sourcing results will be addressed. Core services are the primary services necessary to generate rents; whereas, supplementary services only exist to support the core services or to improve the quality of the core services (Kotabe et al, 1998: 12). Both core services and supplementary services directly

influence strategic success defined as an increase in market share; however, neither influenced financial success defined as return on sales, equity and investment. Yet when these relationships included reliance on foreign sourcing (offshore outsourcing), supplementary services significantly influenced success. The suggested explanation for these results was the reliance or magnitude of the importance of the supplementary services, potentially diluting the core service competencies (1998: 24).

Cainelli, Evangelista, Savona (2006) assessed the process innovation in service firms as a means of improving the delivered service quality or the offering of new services. However, Cainelli et al (2006: 450) asserts that a firm requires past success in order to have the propensity to innovate due to the accumulation of resources necessary for innovation: past successes commits the firm to future innovation. That being said, Cainelli empirically confirmed innovativeness in service firms impacts the success of the firm; thus creating a circle of success resulting in a competitive advantage. The only downside is the scope of this research did not involve the outsourcing dimension; however, these results can be used as the foundation of this paper.

Eisingerich et al (2010: 348) discusses the need for innovation in service firms as a means of avoiding commoditization. Consequently, service firms must focus on developing new service offerings to achieve greater success. This research was conducted through a series of executives from professional service firms. Eisingerich (2010) concluded a significant relationship. This dissertation aims to duplicate this result using statistical analysis of a survey instrument. Thus, from the above noted literature, we hypothesize a relationship between service innovation and success of the offshore outsourcing relationship.

H3c: Service Innovativeness of the offshore service provider is positively related to the offshore outsourcing success of the client firm in the outsourcing relationship between professional service firms.

CHAPTER IV

RESEARCH DESIGN AND METHODOLOGY

4.1 Overview

The primary purpose of Chapter IV is to describe the research methodology utilized to test the hypotheses developed with the support of prior literature. In this chapter, the research design and sample will be discussed followed by an explanation of the sample population and sample criteria. Next will be the details of the data collection procedures, followed by details of the survey instrument and scales used in the operationalization of the variables and controls variables. This section of Chapter IV will encompass the psychometric testing procedures to assess the reliability and validity of the instrument scales including exploratory analysis of the pretest sample and confirmatory factor analysis of the full sample. Lastly, the assumptions of structural equation modeling will be discussed to confirm the relevance of using this method to test the eight hypotheses of this model.

4.2 Study Design and Sample

The foundation of this dissertation study is an examination of professional service firms engaged in offshore outsourcing of activities; thus, the sample is comprised of

accounting, engineering, management consulting and information technology firms. Professional service firms, as previously noted, have unique characteristics associated with the professional service label: highly knowledge-intensive with a specifically educated and certified workforce, bound by professional norms of conduct (Reihlen and Apel, 2007). Furthermore, the tasks are customized to the needs of a third party customer with extensive discretion and personal/professional judgment by the workforce conducting the services; therefore, human capital and intellectual capital are highly valued in professional service firms. According to Hoovers.com, the industries encompassing professional services are accounting, advertising, architecture, engineering, information technology, legal, management consulting, and scientific research.

Four of these industries are chosen to represent the sample of professional service firms offshore outsourcing in this dissertation. Based on the knowledge-intensity and customization of the service tasks required for completion, this dissertation will focus on accounting, management consulting, engineering, and information technology. Furthermore, Malhotra and Morris (2009) utilized accounting, management consulting, engineering and legal in their research, stating the management of these industries is similar. Malhotra and Morris (2009: 895-896) stated the nature of the knowledge, the jurisdictional control, the nature of the client relationship, and the organizational structure including human resource requirements and even pricing policies are similar between these professional service firms. However, we did not use legal services because of the limited nature of offshore outsourcing engaged in by legal firms; instead, we chose to use information technology as the fourth industry in this dissertation study for two reasons.

First, information technology consulting meets all of the criteria of professional services with uniquely skilled, knowledge intensive workforce, low tangible capital requirements, and a code of ethics among its professionals. The second justification for including information technology arose from the Kate O'Sullivan article referenced earlier in this manuscript. The study conducted by Duke University found the largest percentage of offshore outsourcing professional service firms are software development companies, financial/accounting companies, and information technology infrastructure companies. Engineering firms fell eighth out of the top ten most prolific offshore outsourcing professional services. Additionally, accounting firms were selected to be representative of professional service firms because of my personal, professional experience and the availability to accounting professionals to assist in the pre-testing of the survey instrument. Consequently, this dissertation study will be directed at U.S.-headquartered accounting firms, management consulting firms, engineering firms and information technology firms.

The sample population for the collection of data for this study was United States based, knowledge intensive, professional service firms, specifically accounting firms, management consulting firms, engineering firms, and information technology firms. These firms were further narrowed in scope by their engagement in an offshore outsourcing relationship. The collection of data took place over two phases spanning approximately nine months.

The first phase was the pretest of the survey instrument. The pretest survey was distributed via a professional market research firm, Qualtrics Inc., with the purpose of assessing the reliability and validity of the scale items utilized in the survey instrument.

All of the scale items used in this research instrument had been previously tested and empirically supported in past offshore outsourcing literature.

The market research firm was instructed to limit the sample population to the professional service firms noted above with senior management level respondents. Qualtrics identified 400 firms meeting the knowledge intensive, professional service firm designations. Furthermore, a survey item asked the respondent if their firm is currently/has been engaged in an offshore outsourcing relationship. If the respondent replied negatively, the survey attempt was terminated and the respondent was thanked for their time. Given this constraint, 204 of the 400 or 51% of nationwide professional service firms were currently engaged in an offshore outsourcing relationship. The remaining 196 firms had never been in an outsourcing relationship. The next survey item confirmed the professional service firm was a U.S. business entity. Lastly, a survey question requested the type of business conducted by the professional service firm. Numerous choices were given, in addition to the four businesses to be examined. For example, the survey question offered banking, legal, architecture or other. If any of these business types were selected, the respondent was thanked for their time and the survey was terminated. In summary, there were three selection criteria questions that screened for respondents fitting the sample criteria for this study. 75 completed surveys were culled from the 204 responses as a pretest sample.

The second phase of data collection began after the approval of the dissertation proposal defense on July 29, 2013. This phase entailed the collection of a full sample data set for testing of the theoretical model. The second phase started with the collection of 17 completed surveys from Cleveland State University Accounting and Engineering

graduates. The data collection procedures will be discussed at length in the following section. Due to a low response rate, Qualtrics was once again employed to collect the remainder of the full sample data using the same survey instrument used in the pretest and given to the CSU Alumni. The distribution criteria for the collection of responses remained the same as the pretest sample. The target sample population was to achieve 200 completed responses necessary for structural equation modeling. 110 completed surveys were successfully gained by the market research firm in the full sample collection, 75 completed responses in the pretest sample collection, and 17 completed in the CSU Alumni collection process.

In summary, this dissertation study design was comprised of the following steps:

Step 1: Understanding of the unique issues facing professional service firms. An extensive literature search was conducted analyzing the unique characteristics of professional service firms. This led to the selection of constructs and the development of the model for study. The survey was created from the adoption or adaptation of previously researched survey items with respect to each construct.

Step 2: Examination of content validity of the survey instrument. The survey instrument was reviewed by multiple experts employed by firms heavily engaged in offshore outsourcing relationships.

Step 3: Initial review. A preliminary review of the survey was undertaken by completion of 10 surveys to validate understanding of the survey concepts and items. The preliminary results were examined for reasonableness, including the completeness of the survey to test the branching questions and an analysis of means and standard deviations.

Step 4: Pretest Sample. Completion of a pretest sample of 75 responses from

professional service firms for survey instrument evaluation.

Step 5: Full scale survey data collection. Completion of a full scale study of 200 survey responses from professional service firms.

4.2.1 Sample Population and Sampling Criteria

The sample population for this research is knowledge intensive, professional service firms engaged in an offshore outsourcing engagement. The survey was administered by a market research firm to a national panel of individuals employed by professional service firms meeting the following criteria:

- a) Headquartered and located in the United States
- b) Professional Service Firms meeting the following NAICS codes:
 - i. 541211 and 541213: CPAs and Tax Preparation Services
 - ii. 541330: Engineering Consulting Services
 - iii. 541511: Custom Computer Programming Services
 - iv. 541611: Business Management Consulting Services
- c) Firm size greater than 20 employees
- d) Respondent was limited to Senior Manager or higher in the corporate hierarchy
- e) Limited to one response per professional service firm

4.2.2 Sample Size

Due to the difficulty in reaching the targeted respondent employed by the limited scope of professional service firms and at a senior management level, a professional market research firm was employed to obtain the pretest sample of 75 respondents. These responses were used to support the dissertation proposal stage of this process. The

details of the data collection procedures are described in the next section. The dissertation proposal defense was approved and the next step was to begin the collection of the remaining necessary responses.

In an attempt to achieve the targeted goal of 200 responses, the next collection point was Cleveland State University Alumni. After speaking with the Director of Alumni Relations for the Monte Ahuja College of Business at Cleveland State University, Christina Menges, she extended an offer to email the electronic link of the dissertation survey instrument to accounting and engineering alumni of Cleveland State University. We discussed the boundaries of the target population and determined all alumni graduating with a College of Business Accounting major or College of Engineering degree was the starting point. Next, the email “blast” was limited to graduates between years 1970 and 2005 actively employed by a professional service firm meeting the accounting or engineering designation. These criteria were screened in the survey instrument as previously discussed. The graduation year restriction was intended to reach senior managers or higher in the professional service firm corporate hierarchy. Graduates within this range have been in the workforce between 9 and 40+ years, enough years to be promoted to the level of a senior manager or higher within their respective professional service firm. Additionally, a survey question was added to screen out any employee below the senior manager level. The alumni department tallied 6,432 nationwide alumni matching these criteria; however, they warned of a poor response rate from the alumni on email “blasts”. Ms. Menges noted the average response rate for alumni department email “blasts” to be 0.1 – 0.25%, meaning expectations should range from six to sixteen completed responses. According to Ms. Menges, since the email was

not a request for financial support, we both were hopeful for a higher response rate. The first email “blast” was sent on a Thursday afternoon gaining 8 completed responses, all coming from engineering alumni. A second email blast of the survey link was sent two weeks later, intentionally the full week following the July 4th holiday weekend, and an additional 9 completed response were submitted via the email link to the electronic survey instrument. In total, 17 responses were gained from the 6,432 alumni or 0.389% response. Even though this was a strong response rate according to the Director of Alumni Relations, this method of collection was determined to be insufficient in yielding the volume of completed responses necessary to create the full sample dataset. This brought the total sample size to 92 or a little less than 50% of the necessary full sample size.

The remaining 110 responses were obtained from the same market research firm used to collect the pretest sample. The criteria and survey instrument remained the same with one exception. One new constraint was added to the distribution of the survey: each of the 100 responses had to be completed by a new respondent from a professional service firm not included in the pretest sample. The purpose of this limitation was to avoid an intentional duplication of responses.

A total sample size of 202 completed responses, including the pretest sample of 75 completed responses, was collected to meet the statistical requirements of structural equation modeling and analyze the dissertation model. Of the 202 completed responses, 17 responses were gathered from Cleveland State University alumni employed by professional service firms offering accounting or engineering services while the remaining 185 responses were obtained from the market research firm, Qualtrics.

The guideline for the sample size was determined based on the use of structural equation modeling on the full data set. Sample size is a crucial consideration in statistical analysis to gain the statistical power of confidence in the results. The Type I error rate is expected to remain no greater than 5% or $\alpha < 0.05$. Type I error is incorrectly rejecting the null hypothesis meaning a relationship is shown to exist when in fact, the relationship is insignificant. If the data is normally distributed, the z-score should fall between -1.96 and +1.96 when $\alpha = 0.05$. Type I error will skew the z-score. Type II error, accepting the null hypothesis when the null should have been rejected, is controlled by the sample size. According to Hair, Black, Babin, Anderson and Tatham (2006), the recommended sample size is twenty times the number of variables in the model, with a minimum sample size of 100. The dissertation model has five variables estimating the sample size to be approximately 100. However, other guidelines suggest five to ten responses per survey item (Bentler, 1990; Nunnally, 1967) estimating the sample size to range between 153 and 310 based on 31 items. Additional literature supports a sample size of 200 as adequate and should not to exceed a sample size of 500 (Hair et al, 2006); therefore, the collection of 202 responses is a sufficient and appropriate sample size to meet the statistical demands of the model.

4.3 Data Collection Procedures

The survey instrument was designed to empirically test the dissertation model. The survey instrument utilizes established scale items previously tested for reliability and validity in past literature. The supporting documentation for the scale items used in prior literature, including a comparison of the original results from prior research compared to the results of this study, is detailed in the following sections by construct.

Prior to the distribution of the survey instrument and the commencement of data collection, initial content validity needed to be confirmed. A three step process was implemented to assess content validity of the survey instrument. First, after an extensive review of the offshore outsourcing literature and analysis of the constructs used in prior research, a theoretical model was created to address a research gap in the literature. The dissertation model was created with literature support to justify the potential relationships proposed in the model. The constructs used to develop this model have been previously utilized and empirically tested in previously published research studies. The published research details the specific language of the survey items used in prior research. This study adopted or adapted reliable and validated survey items from the existing literature of each construct. Second, the preliminary survey instrument was emailed to two individuals involved in the offshore outsourcing decision making process for their firms. The first individual is a senior manager employed by one of the “Big Four” Accounting Firms. She is integral to the selection and training of the partnering offshore vendor. She made several important observations of the preliminary survey instrument. First she noted the potential for one firm to be engaged in multiple offshore outsourcing engagements simultaneously with different vendors. The initial survey item asked the respondent to classify the type of outsourcing engagement. Multiple engagements were not considered. Her comment prompted the addition of new survey items to identify multiple engagement circumstances and to assess the responses accurately. As a result, a fourth classification was added to the type of offshore outsourcing which gave the option to select “we are engaged in more than one offshore outsourcing engagement.” If this fourth option is selected by the respondent, a branching question is asked to percentage

the three types of offshore outsourcing. The survey item reads “As you consider the multiple offshore outsourcing relationships, please approximate the percentage of each type of engagement.” The respondent is forced to have the percentages add to 100%. If, on the original survey item, only one type of offshore outsourcing is selected, then this question is not viewed by the respondent. The remaining questions ask the respondent to rate the following information using the largest percentage of offshore outsourcing in which their firm is engaged. A second suggestion came from the demographic question which asks the location of the offshore service vendor. This individual recommended adding additional location choices such as Eastern European countries and Other Southeast Asian countries. These suggestions were invaluable to this research and improved the survey instrument. Lastly, the third recommendation she noted was the word “vendor” which was misleading. She strongly encouraged the usage of “service provider”. This change was also made to the survey instrument.

The second individual to receive the survey was the former co-worker of a colleague at Cleveland State University. This individual is a C-suite executive from a Fortune 100 company and was chosen because of the volume of offshore outsourcing engagements engaged in by the Fortune 100 Company. This individual is in a decision-making role on the offshore location and the selection process of the service provider. The company offshore outsources numerous activities ranging from business process outsourcing (call centers and accounts payable tasks) to the completion of complex knowledge-intensive trust tax returns. Knowing this information from talking with my colleague and a preliminary phone conversation, the amended survey instrument was emailed to this individual via the survey link. This individual completed the survey

without further changes or comments. This completion was not included in the 202 completed survey responses because the company does not qualify as a professional service firm. Even though the response was not counted, this feedback was useful to determine the proper corrections were made to the initial survey instrument and the survey instrument achieved face validity.

The completed survey instrument was emailed to the Cleveland State University Institutional Review Board for Human Subjects in Research with the necessary paperwork seeking approval for testing of adult subjects. The approval letter was dated on July 5, 2013 with a copy of the approval letter is attached in Appendix C. The third step in the process of assessing face and content validity was conducted by Qualtrics, the market research firm used to gather the pretest and full data sample. This final validity assessment occurred after the IRB approval was received, the contract was signed with Qualtrics, and the distribution criteria and quota were confirmed reasonable by Qualtrics. A copy of the survey instrument was emailed to Qualtrics. The Qualtrics project manager reviewed the survey and made two recommendations for change. First, the survey contained two major questions, one testing relational governance and one testing strategic capabilities, in matrix format with an expanded list of items. The project manager suggested adding an “attention item” which states “select strongly disagree for this item” with the intent of checking the acquiescence bias of the respondent. If the respondent were simply selecting agree for all of the survey items, this “attention item” would not be properly completed thus flagging the completed survey response. The second recommendation from the Qualtrics project manager was to move the demographic question requesting the location of the service provider to within the top

five questions of the survey. The concern voiced from the project manager was if the professional service firm was engaged in multiple offshore outsourcing engagements, by the end of the survey, the respondent can easily forget which engagement their responses are relative to. Consequently, the demographic location question branches from the type of offshore outsourcing engagement or the percentage of each type question if multiple engagements are the chosen response. These recommended changes were made to the survey and the survey was distributed to three Qualtrics panel experts for face validity testing. These three expert respondents did not have recommended changes. The next step was the survey was then distributed to a select group of Qualtrics respondents to generate ten completed surveys. The ten responses were forwarded to me to review. A cursory review of the responses confirmed a well distributed survey response with 60% tactical and 40% strategic offshore outsourcing. The means and modes were reviewed and appeared reasonable for the small sample size. Based on these procedures, the survey instrument meets the face and content validity test.

The next step was the data collection necessary for the pretest sample. Due to the difficulty in reaching the targeted respondent at the senior management level employed by the limited scope of professional service firms, a professional market research firm was employed to obtain the pretest sample of 75 respondents. The sampling criteria for the 75 responses were previously discussed. Qualtrics is a highly reputable organization that is commonly used by academic researchers for the data collection process, ranging from psychology and nursing (Wool, 2013) to education (Monteiro, Wilson, Beyer, 2013) to advertising (Lawrence, Fournier, Brunel, 2013). This research has been published in leading journals such as the Journal of Obstetric Gynecologic and Neonatal Nursing or

the Journal of Advertising. There is not a reason to doubt the adherence to the sampling criteria guidelines established for this study. Qualtrics collected the first ten responses and stopped the distribution process to conduct a preliminary evaluation of these results. The review process was targeting several areas of interest. First was confirmation of the respondent viewing and answering all survey questions. There are several areas of the survey in which the next question is dependent upon the previous response. These are called branching questions. The branching questions were reviewed for proper survey flow. Second was an examination of the business activity responses to confirm the respondents were involved in one of the three targeted professional services. The third review was to evaluate for reasonableness the mean, median, and standard deviation of the survey items. Upon approval of the preliminary results, the pretest sample data collection was resumed.

The final full sample data collection occurred several months later following the dissertation proposal defense and further literature review. In an attempt to achieve the targeted goal of 200 responses and to minimize the high cost of data collection from Qualtrics, the next collection point was Cleveland State University Alumni. After speaking with the Director of Alumni Relations for the Monte Ahuja College of Business at Cleveland State University, Christina Menges, she extended an offer to email the electronic link of the dissertation survey instrument to accounting and engineering alumni of Cleveland State University. We discussed the boundaries of the target population and determined all alumni graduating with a College of Business Accounting major or College of Engineering degree was the starting point. Next, the email “blast” was limited to graduates between years 1970 and 2005 actively employed by a professional service

firm meeting the accounting or engineering designation. These criteria were screened in the survey instrument as one question specifically asked the business activity. The graduation year restriction was intended to reach senior managers or higher in the professional service firm corporate hierarchy. Graduates within this range have been in the workforce between 9 and 40+ years, enough years to be promoted to the level of a senior manager or higher within their respective professional service firm. Additionally, a survey question was added to screen out any employee below the senior manager level. The alumni department tallied 6,432 nationwide alumni matching these criteria; however, they warned of a poor response rate from the alumni on email “blasts”. Ms. Menges noted the average response rate for alumni department email “blasts” to be 0.1 – 0.25%, meaning expectations should be between 6-16 completed responses. According to Ms. Menges, since the email was not a request for financial support, we both were hopeful for a higher response rate. The first email “blast” was sent on a June afternoon gaining 8 completed responses, all coming from engineering alumni. A second email blast of the survey link was sent two weeks later, intentionally the full week following the July 4th holiday weekend, and an additional 9 completed response were submitted via the email link to the electronic survey instrument. In total, 17 responses were gained from the 6,432 alumni or 0.26% response. Even though this was the anticipated response rate according to the Director of Alumni Relations, this method of collection was determined to be insufficient in yielding the volume of completed responses necessary to create the full sample dataset. This brought the total sample size to 92 or a little less than 50% of the necessary full sample size.

The remaining 110 responses were obtained from the same market research firm, Qualtrics, used to collect the pretest sample. The criteria and survey instrument remained the same with one exception. One new constraint was added to the distribution of the survey: each of the 110 responses had to be completed by a new respondent from a professional service firm not included in the pretest sample. The purpose of this limitation was to avoid an intentional duplication of responses. The primary goal of the data collection process was to achieve a minimum total sample of 200 responses. A total sample size of 202 completed responses, including the pretest sample of 75 completed responses, was collected to meet the statistical requirements of structural equation modeling and analyze the dissertation model. Of the 202 completed responses, 17 responses were gathered from Cleveland State University alumni employed by professional service firms offering accounting or engineering services while the remaining 185 responses were obtained from the market research firm, Qualtrics.

4.4 Survey Design and Scale Development

4.4.1 Dependent Variable: Offshore Outsourcing Success Scale

The offshore outsourcing success scale was developed and operationalized by Lee (2001), published in *Information and Management* and adapted for use in this study. Lee (2001) was examining the success of information systems offshore outsourcing using cross-sectional survey data. Many other researchers have used these scale items in their research of outsourcing success with results meeting the reliability and validity guidelines (Han, Lee, Seo, 2008; Wang, 2002). Offshore outsourcing success is operationalized using a five point Likert scale ranging from strongly disagree (1) to strongly agree (5). There are seven items to measure offshore outsourcing success. Item number seven was

reverse coded; however, this item was dropped due to an insufficient negative factor loading after adjustment were made for the reverse coded wording. This means offshore outsourcing success will be measured using six survey items, all previously tested for reliability and validity in the Lee (2001) research, with the statements summarized below:

1. Our firm has been able to refocus on core business services
2. Our firm has increased control over expenses
3. Our firm has increased access to key knowledge
4. Our firm has increased access to highly skilled personnel
5. Our firm is satisfied with overall benefits of offshore outsourcing
6. Our firm is satisfied with the success of offshore outsourcing relationship

Dimensionality was assessed using principal component analysis in which all six items loaded on a single factor. Construct validity has been assessed using exploratory factor analysis in the pretest sample and confirmatory factor analysis in the full data sample.

According to Hair et al (2006:138) Cronbach Alpha should be greater than 0.60 in exploratory research and 0.70 or higher in confirmatory factor analysis to assess reliability. Convergent validity, the scale items measure what is meant to be measured, has been evaluated using the guidelines of Hair et al (2006) to assess the internal consistency: Composite Reliability greater than 0.70 and Average Variance Extracted greater than 0.50 confirms internal consistency in the scale items.

Dimensionality, construct validity and convergent validity were evaluated and confirmed for both the pretest and full samples. These results can be seen in sections 5.2.2 Pretest Reliability and Validity Assessments and 5.3.5 Full Sample Reliability and Validity Assessments.

4.4.2 Collaboration Scale

The collaboration scale was developed and operationalized by Hoegl and Wagner (2005), published in the Journal of Management and adapted for use in this study. The scale measures collaboration as a three dimensional construct with eight scale items including two items for commitment, four items for information exchange and two items for communication. Hoegl and Wagner (2005) were examining the influence of buyer-supplier collaboration on the success of special projects. According to Google Scholar, their research developing the three dimensional construct of collaboration has been cited in 121 research publications. These citations include Phelps, Heidl, Wadhwa (2012) and Wagner, Eggert, Lindemann (2010). The three dimensions are operationalized using the 1-7 Likert scale from strongly disagree to strongly agree. Eight, reliable and valid, survey items were adapted from Hoegl and Wagner (2005) and summarized below:

1. Both parties commit resources to sustain the relationship
2. Vendor is willing to make further investment to support the needs of the client
3. Both parties share business knowledge of core business processes
4. Both parties exchange information to help business planning
5. Both parties share business and technical information that affect each other's business
6. Information provided by our firm helps the vendor execute requested business tasks
7. Communication is timely
8. Communication is accurate

Dimensionality was assessed using principal component analysis. All eight items loaded onto a single factor loading, without rotation. Construct validity has been assessed using exploratory factor analysis in the pretest sample and confirmatory factor analysis in the full data sample. According to Hair et al (2006:138) Cronbach Alpha should be greater than 0.70 in confirmatory factor analysis to assess reliability. Convergent validity, the scale items measure what is meant to be measured, has been assessed using the guidelines of Hair et al (2006) to evaluate internal consistency: composite reliability greater than 0.70 and average variance extracted greater than 0.50 signal internal consistency in the scale items. Tables XVI and XXIX in sections 5.2.2 and 5.3.5 respectively detail the results of dimensionality, construct validity, and convergent validity for the pretest and full data samples.

4.4.3 Technological Capability Scale

The technological scale was developed and operationalized by Lu and Ramamurthy (2011), published in the MIS Quarterly examining the usage of technological capabilities to improve agility in business spanning relationships. The four item scale was adapted for use in this study. Numerous other researchers have used these scale items in their research with results meeting the reliability and validity guidelines. In total, the CSU Library Ebsco Host notes 121 cited references to this publication using the technological capability scale. The technological capability scale is operationalized using the 1-7 Likert scale from strongly disagree to strongly agree. A summary of the four survey items adopted from Lu and Ramamurthy (2011) are below:

1. Vendor firm seeks enhancements for technology effectiveness
2. Vendor capable of and experiments with new technology

3. Vendor is current with technological innovations

4. The client-vendor relationship is supportive of trying new uses of technology

Dimensionality was assessed using principal component analysis loading onto a single factor loading. Construct validity has been assessed using exploratory factor analysis in the pretest sample and confirmatory factor analysis in the full data sample. According to Hair et al (2006:138) Cronbach Alpha should be greater than 0.60 in exploratory research and 0.70 or higher in confirmatory factor analysis to assess reliability. Table XVII and XXIX, located in sections 5.2.2 and 5.3.5, and compares the factor loadings of the original research published by Lu and Ramamurthy (2011) with the pretest factor loadings and the full data sample factor loadings. In all instances, the cronbach alpha exceeds the recommended guidelines for exploratory and confirmatory factor analysis supporting the reliability of the technological capability scale. Convergent validity, the scale items measure what is meant to be measured, has been assessed using the guidelines of Hair et al (2006) to gauge the internal consistency: Composite Reliability greater than 0.70 and Average Variance Extracted greater than 0.50 signal internal consistencies in the scale items. Dimensionality, construct validity and convergent validity was evaluated and confirmed for both the pretest and full samples.

4.4.4 Learning Capability Scale

The learning capability scale was developed and operationalized by Baker and Sinkula (1999), published in the Journal of Academy of Marketing Science and has been cited in more than 1,350 publications. Numerous other researchers have used these scale items in their research with results meeting the reliability and validity guidelines (Calatone, Cavusgil, Zhao, 2002; Hult, Hurley, Knight, 2004). The scale measures

learning capability with five scale items; however, one item resulted in low factor loadings and was deleted from the pretest and full sample results. The learning capability scale is operationalized using the 1-7 Likert scale from strongly disagree to strongly agree. The four survey items adopted from Baker and Sinkula (1999) are summarized below:

1. Our service provider agrees the ability to learn is the key to competitive advantage
2. Our service provider has a firm-level value that learning is the key to improving services
3. Both firms believe that employee learning is an investment, not an expense.
4. Learning is a key commodity necessary for organizational survival.
5. Our service provider does not make employee learning a top priority
(Reverse)

Dimensionality was assessed using principal component analysis with a single factor loading.

Construct validity has been assessed using exploratory factor analysis in the pretest sample and confirmatory factor analysis in the full data sample. According to Hair et al (2006:138) Cronbach Alpha should be greater than 0.60 in exploratory research and 0.70 or higher in confirmatory factor analysis to assess reliability. Table XVIII and XXIX, in sections 5.2.2 and 5.3.5, compares the factor loadings of the original research previously published by Baker and Sinkula (1999) with the pretest factor loadings and the full data sample factor loadings. In all instances, the cronbach alpha exceeds the

recommended guidelines for exploratory and confirmatory factor analysis supporting the reliability of the learning capability scale.

Convergent validity, the scale items measure what is meant to be measured, has been assessed using the guidelines of Hair et al (2006) to evaluate the internal consistency: composite reliability greater than 0.70 and Average Variance Extracted greater than 0.50 signal internal consistencies in the scale items. Dimensionality, construct and convergent validity were all confirmed.

4.4.5 Service Innovativeness Scale

The service innovativeness scale was developed and operationalized by Hogan, Soutar, McColl and Sweeney (2011) and published in *Industrial Marketing Management*. This research publication was a scale development paper for professional service firm innovativeness. A search using the CSU Library Ebsco Host website shows this article has been cited 83 times since 2011. The scale measures service innovativeness using eight scale items. The service innovativeness scale is operationalized using the 1-7 Likert scale from strongly disagree to strongly agree. The eight survey items, previously tested by Hogan et al (2011), adopted for this study are listed below:

1. Services offered by the service provider offer unique benefits, not offered by their competitors
2. Services offered by the service provider are radically different from competitors
3. Services offered by the service provider are higher quality than from competitors

4. Service provider presents our firm with unique solutions that our firm has not considered
5. Service provider provides innovative ideas to us
6. Services provided are highly innovative
7. Service provider is an industry leader
8. Service provider provides services that offer superior benefits to us

Dimensionality was assessed using principal component analysis which loaded onto a single factor loading. Construct validity has been assessed using exploratory factor analysis in the pretest sample and confirmatory factor analysis in the full data sample. According to Hair et al (2006:138) Cronbach Alpha should be greater than 0.60 in exploratory research and 0.70 or higher in confirmatory factor analysis to assess reliability. Table XIX and XXIX in sections 5.2.2 and 5.3.5, compares the factor loadings of the original research previously published by Hogan et al (2011) with the pretest factor loadings and the full data sample factor loadings. In all instances, the cronbach alpha exceeds the recommended guidelines for exploratory and confirmatory factor analysis supporting the reliability of the collaboration scale. Convergent validity, the scale items measure what is meant to be measured, has been evaluated using the guidelines of Hair et al (2006) to assess the internal consistency: Composite Reliability greater than 0.70 and Average Variance Extracted greater than 0.50 signal internal consistencies in the scale items. As shown in sections 5.2.2 and 5.3.5, collaboration meets all established guidelines for reliability and validity.

4.4.6 Control Variables

Three control variables are used in the examination of the hypothesized model to test the impact of the independent variables. The following control variables are used in the model:

4.4.6.1 Size of professional service firm, measured with the number of employees.

Firm size is commonly measured with the number of employees (Bertrand & Mol, 2013; Noya et al, 2012; Palvia et al, 2010; Ren et al, 2010) when addressing knowledge intensive offshore outsourcing. Prior offshore outsourcing literature, as noted, has used firm size measured with the number of employees as a control variable. The classifications of firm size are consistent with the prior literature.

Noya et al (2012) examined the probability of offshore outsourcing the research function in technology intensive firms. These researchers used the number of employees and the log of firm sales with comparable results for either control variable.

Moreover, Bertrand and Mol (2013) assert the usage of the number of employees as a control variable to account for the economies of scale when entering into an offshore outsourcing relationship. Due to the knowledge intensity of professional service firms, the number of employees is a proxy for the resources available within the professional service firm. These authors also assert firm size, as measured with the number of employees, is important as a control variable when innovativeness is being examined. Using similar support, innovativeness is generated from the union of employees and resource availability; therefore, the number of employees is used as the control variable. This study is consistent with prior research within the professional service firm industry. The control variable size is not significant to offshore outsourcing success.

4.4.6.2 Location of the offshore service provider.

Manning et al (2011) conducted a comparison of business process outsourcing to knowledge intensive outsourcing in sustaining a long-term successful business relationship. These researchers utilized not only the number of employees, with the same classification system as this dissertation study, as a control variable; they also used location of the offshore service provider. Location is used as a control variable due to the client firm perception of risks based on the location of the service provider (Manning et al, 2011; Doh, Bunyaratavej, Hahn, 2009). Prior literature supports the use of location as a control variable, especially in knowledge intensive outsourcing such as professional service firms. The literature employs location as a dichotomous variable examining emerging markets versus developed economies and this study follows the same procedure.

Grimpe & Kaiser (2010) also examined location as a control variable in their research of R&D outsourcing declaring location as a regional difference. They distinguished between East and West Germany controlling for infrastructure and economic growth differences between the two countries. This is similar to the emerging market within this study in that the economic growth differences are recognized in the location control variable amongst the different emerging markets countries. This study employed the dichotomous variable in coding all emerging market countries as a 1 and all others as 0. This treatment of location is consistent with the prior literature on offshore outsourcing of knowledge-intensive services.

4.4.6.3 Type of offshore outsourcing engagement

The type of offshore outsourcing engagements is a categorical variable distinguishing between tactical, strategic and transformational offshore outsourcing. As previously discussed in this study, these three types of outsourcing are classifications of degree of governance, degree of risk acceptance, level of services outsourced, or degree of collaboration. Type must be controlled for in this study to assess collaboration on the service capabilities without confounding effects. Prior literature supports type as a control variable. Rai, Maruping and Venkatesh (2009) used relationship type, defined as risk sharing and project complexity, as a control variable in their evaluation of the success of information systems offshore outsourcing. In addition, Goo, Kishore and Rao (2009) also used type of outsourcing as a control variable. They asserted the control variable type is important when assessing commitment and information exchange within the relationship. This study has viewed these two variables as dimensions of collaboration, consistent with prior literature. Hence, this study has adopted type of offshore outsourcing as a control variable.

4.5 Assumptions of SEM

The hypothesized model is testing using structural equation modeling (SEM). This statistical analysis technique is used because of its ability to simultaneously estimate multiple relationships while incorporating measurement error in the estimation process (Hair, 2006). The estimates are based on correlation matrices. SEM allows for multiple dependent variables whereby one variable can effectively act as both an independent and dependent variable in the same model. Restated, SEM allows for the simultaneous testing of multiple regression equations.

The use of structural equation modelling implies three key assumptions: independence of observations, random sampling of the respondents, and a linear relationship (Hair et al, 2006). Hair et al (2006) further states tests must be conducted for normality, skewness and kurtosis because each of these can distort the results. SEM is sensitive to kurtosis in data resulting in an inflation of the goodness of fit statistics and an under estimation of the standard error. Linearity and normality are evaluated through the examination of residuals, data scatterplots or Kolmogorov-Smirnov tests respectively. Data transformations are the recommended solution if the data is not multivariate normal.

SEM procedures include a two-step testing process. Step 1 is to assess the (a) dimensionality, (b) reliability and (c) validity using confirmatory factor analysis.

(a) Dimensionality is evaluated based on a single factor loading and the percent of variance extracted during confirmatory factor analysis.

(b) Reliability is measured with Cronbach Alpha. An acceptable estimate of reliability is Cronbach Alpha greater than 0.70 when conducting confirmatory factor analysis in step 1 of SEM. The correlations between variables must be at least 0.30 for factor analysis.

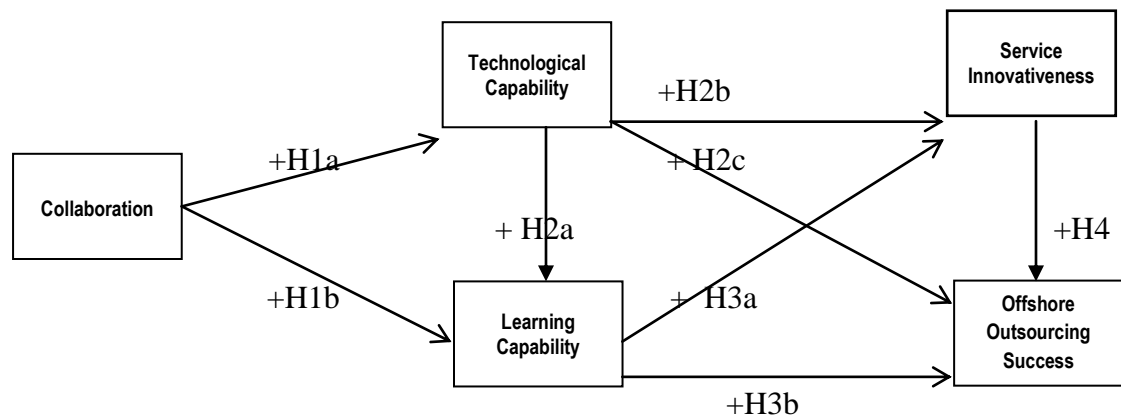
(c) Validity is evaluated in several ways. First, convergent validity is present in the measurement model when the factor loading from confirmatory factor analysis are greater than 0.70 and the fit indices are greater than 0.90. These values can be lower in exploratory factor analysis. Second, discriminant validity is defined by Bagozzi (1980: 376) as “the cross-construct correlations among measures of causally related variables should be highly inter-correlated but should correlate at a level lower than that of the

within-construct correlations. Furthermore, the pattern of correlations among the cross-construct correlations should be uniform.” Therefore, discriminant validity is measured with a review of correlations between constructs being significantly different than 1.0.

Step 2 entails assessing the goodness of fit of the model using commonly accepted guidelines and recommendations. The most widely accepted measurements of goodness of fit of an SEM model are RMSEA, the goodness of fit index (GFI), comparative fit index (CFI) and normed fit index (NFI).

4.6 Dissertation Model

Figure 5: Dissertation Model



The above dissertation model was developed after an extensive review of the collaboration and offshore outsourcing literature. This research empirically examines the relationship between collaboration and technological capability and collaboration and learning capability. The two capabilities of technology and learning are tested as direct effects on service innovativeness and offshore outsourcing success. The hypotheses will examine using AMOS structural equation modelling.

CHAPTER V RESULTS

5.1 Overview

This chapter provides a detail analysis of the results from the pretest and the full sample from descriptive statistics to the tests of hypotheses. The reliability and the validity of the survey items has been established and confirmed in Chapter IV. This chapter will focus on the evaluation of the empirical results.

5.2 Pretest Results

5.2.1 Pretest Sample Descriptive Statistics

Based on the distribution criteria supplied to the market research firm, Qualtrics anticipated a seven to ten workday collection period to achieve 75 completed responses from senior managers employed by professional service firms engaged in offshore outsourcing. The first ten responses, as a test of the survey instrument flow, were completed within 24 hours. These ten responses confirmed the proper flow and branching of the survey instrument. Upon approval, Qualtrics continued to collect completed responses for six business days. The random pretest sample of 75 completed

surveys was collected from a nationwide panel of professional service firms. The pretest sample descriptive statistics are described in detail below.

The following table provides the details of the number of professional service firms, specifically accounting firms, engineering firms, and information technology consulting firms, engaged in an offshore outsourcing relationship. As shown in Table VIII, 403 surveys were distributed to collect the pretest sample of 75 completed surveys. This paper has referred to the phrase “completed responses” on numerous occasions. Qualtrics identifies a completed response survey as a survey without missing data; therefore, there were not missing values nor values to be imputed. All of the data in the empirical analysis was collected from the respondents.

Table VIII: Collection of Pretest Sample Data
Raw Pretest Sample Data

Currently engaged in offshore outsourcing	109	27%
Not currently engaged but was less than 5 years ago	76	19%
Not currently engaged but was greater than 5 years ago	22	5%
Never	196	49%
N=	403	

The 403 responses were generated from professional service firms; however, the scope of this survey is narrowed to three specific “soft” professional service firms namely, accounting, engineering and information technology consulting. At the same time, this study does not want to dismiss the value in the data collected in the pretest collection phase. Interestingly, 51% of professional service firms have never engaged in an offshore outsourcing relationship. This is consistent with the 2013 Duke University results published by O’Sullivan and graphically depicted in Figure 3. Of the remaining 49% with experiences in offshore outsourcing, 109 of 207, or 52.7%, of professional service

firms are actively engaged in an offshore outsourcing relationship. 76 of the 207, or 36.7%, are not actively engaged in a relationship but have experienced a relationship in the past five years. The survey instrument was developed so that only these two demographics responses were given access to complete the entire survey. Those respondents never engaged in an outsourcing relationship or those respondents whose experience is greater than five years ago, were thanked for their time and the survey was terminated. The justification, supporting the termination of responses whose experience was greater than five years prior, stems from the advances in technology and communication during this time period. In addition, the growth of offshore outsourcing and the increased competition among offshore service providers has significantly changed in the past five years. To avoid confounding results, only professional service firms currently engaged or engaged in the past five years were given access to the entire survey instrument. The breakdown of the 75 pretest sample responses from the narrowed scope of professional service firms was as follows:

Table IX: Pretest Sample Data of Accounting, Engineering and IT

Accounting, Engineering, Information Technology Firms Engaged in Offshore Outsourcing Relationship		
Currently engaged in offshore outsourcing	37	50%
Not currently engaged but was less than 5 years ago	38	50%
N=	75	

The seventy five completed responses were generated from accounting firms, engineering firms and information technology consulting firms. Table X shows the breakdown by business activity outsourced to an offshore service provider.

Table X: Pretest Data: Count by Professional Service Firm Activity

Accounting	14	19%
Engineering	25	33%
Information Technology	36	48%
N=	75	

The survey instrument was developed to also collect the type of offshore outsourcing relationship. The three types of offshore outsourcing were discussed in section 1.2, an Introduction to Offshore Outsourcing: tactical, strategic and transformational. In addition, as previously discussed in section 4.3.1, a recommendation was made by a senior manager from a Big Four Accounting Firm to include a fourth classification for “multiple engagements” in the survey question on the type of offshore outsourcing relationship. The results were surprising to the magnitude of firms engaged in multiple concurrent relationships. Table XI shows the composition by type of engagement:

Table XI: Pretest Type of Offshore Outsourcing Engagements with Multiple Engagements

Short-term tactical	38	51%
Long-term strategic	21	28%
Long-term transformational	4	5%
Multiple engagements	12	16%
N=	75	

Those responses selecting multiple engagements were given an additional survey question. This survey item was a ratio formatted item in which the response was forced to equal 100% in order to proceed. Respondents were asked to describe the percentage of each type of engagement. For example, one response showed 20% short-term tactical and 80% long term transformational. The instructions directed the respondent to answer

the remainder of the survey considering only the most significant or largest percentage engagement. The multiple engagements responses were manually analyzed to examine the 100% conformance and to recode the type to tactical (1), strategic (2) or transformational (3) based on the largest percentage. The recoding of these responses occurred in a duplicated file, so as to maintain an authentic file with the original results. Table XII shows the type of professional service firm offshore outsourcing relationships.

Table XII: Type of Offshore Outsourcing Engagement Restated

Short-term tactical	38	51%
Long-term strategic	31	41%
Long-term transformational	6	8%
Multiple engagements	0	
N=	75	

The geographic location of offshore service provider was also assessed in the pretest data set. The results show 91% or 68 of 75 responses, of the professional service firms are engaged in a relationship with an offshore service provider located in an emerging economy. India and China dominate this 91% as the two largest countries of choice. The remaining 9%, or 7 responses, show geographic diversity in the offshore locational choice electing service providers in Canada, England, Russia, Australia, Israel, and Mexico. Data was also collected on firm size as shown in Table XIII.

Table XIII: Pretest Firm Size assessed from the number of employees

20-200 employees	23	31%
201- 500 employees	14	19%
501- 1,500 employees	16	21%
1,501 - 5,000 employees	13	17%
Greater than 5,000 employees	9	12%
N=	75	

The last demographic data collected from the pretest survey instrument was the length of the offshore outsourcing relationship. Table XIV shows the responses. These results allow this study to use the length of the engagement as a proxy for the control variable of experience in offshore outsourcing.

Table XIV: Pretest Firm Experience in offshore outsourcing

Experience of firms		
1 - 3 years of offshore outsourcing experience	30	40%
4 - 6 years of offshore outsourcing experience	27	36%
7 - 10 years of offshore outsourcing experience	15	20%
Greater than 10 year experience	3	4%
N=	75	

5.2.2 Pretest Reliability and Validity Assessments

Reliability and validity of the pretest sample results has been provided in section 4.4 of this study showing all measures meet acceptable psychometric criteria. Section 4.4 details the Average Variance Extracted, the Composite Reliability, the factor loadings onto a single factor, and the percent of variance extracted. These results confirm the reliability and validity of the survey instrument. The same survey instrument was used to test the full sample and the confirmatory factor analysis is also shown in 4.4.

5.2.2.1 Offshore Outsourcing Success Scale

The offshore outsourcing success was adapted from Lee (2001) who examined the influence of the ability of the service provider to exchange and absorb information in the client-vendor relationship and the success of the offshore outsourcing relationship. Lee's (2001) results were significant from the Korean service provider perspective. This article

has become the commonly recognized research in offshore outsourcing success and the justification for adopting the survey items.

Table XV: Pretest Offshore Outsourcing Reliability and Validity Assessments

	Lee (2001) Results	Pretest Sample
Offshore Outsourcing Success	<u>CR=0.90</u>	AVE=0.54, <u>CR=0.78</u>
% of variance explained		60%
Able to refocus on core business	0.67	0.68
Increased control of expenses	0.73	0.75
Increased access to key knowledge	0.78	0.77
Satisfied with benefits of outsourcing	0.78	0.75
Increased access to highly skilled personnel	0.82	0.73
Satisfied with success of offshore outsourcing relationship	0.79	0.78

All factors loaded on a single factor loading with 60% variance explained and an initial eigenvalue of 3.6, thus measuring unidimensionality of this construct. Reliability is assessed using the average variance extracted greater than 0.50 and the composite reliability greater than 0.70. Convergent and discriminant validity are confirmed based on the factor loadings greater than 0.60 in exploratory factor analysis. In addition, the results are consistent with the published data in the Lee (2001) research. Table XV above below presents the reliability and validity of the offshore outsourcing success scale.

5.2.2.2 Collaboration Scale

The collaboration scale was adopted and adapted from Hoegl and Wagner (2005) in their examination of buyer-supplier collaboration in special projects. In conducting the research, the buyer-supplier relationship in a product-based environment is similar to the client-vendor relationship in an offshore outsourcing relationship. The literature on collaboration in an offshore outsourcing relationship is limited; therefore, support for collaboration in services was researched. The service industry collaboration literature reinforces the importance of sharing critical resources, communication and commitment to produce synergistic solutions. The pretest model examined the unidimensional constructs of collaboration: information exchange and commitment. Modifications were made to the proposed model in that the construct of collaboration was acknowledged as a multidimensional construct using confirmatory factor analysis, consistent with the literature. These three dimensions of information exchange, commitment and communication are consistent with the Hoegl and Wagner (2005) empirical research of collaboration.

All factors loaded on a single factor loading with 56.5% variance explained and an initial eigenvalue of 4.52, thus measuring unidimensionality of this construct. Reliability is assessed using the average variance extracted greater than 0.50 and the composite reliability greater than 0.70. Convergent and discriminant validity are confirmed based on the factor loadings greater than 0.60 in exploratory factor analysis but meeting the more stringent guidelines for confirmatory factor analysis. In addition, the composite reliability is consistent with the published data in the Hoegl and Wagner

(2005) research. Table XVI below presents the pretest reliability and validity of the collaboration scale.

Table XVI: Pretest Collaboration Scale Reliability and Validity Assessments

	Hoegl/ Wagner (2005)	Pretest Sample Data AVE=0.56 CR =0.89
<u>Collaboration</u>	CR=0.93	
% of variance explained		56.50%
Both parties commit resources to sustain relationship	Not Available	0.73
Vendor is willing to make further investment to support needs		0.80
Share business knowledge of core business processes		0.75
Exchange information to help business planning		0.75
Share business and technical information that affect each other's business		0.70
Information provided by our firm helps vendor execute requested business tasks		0.79
Communication is timely		0.74
Communication is accurate		0.74

5.2.2.3 Technological Capability Scale

Technological Capability was adopted from Lu and Ramamurthy (2011) who researched the influence of technological capability the agility of business spanning relationships. This research used three dimensions of technological capability; however, only one dimension consisting of four survey items was adopted for this study.

All factors loaded on a single factor loading with 77.5% variance explained and an initial eigenvalue of 3.1, thus measuring unidimensionality of this construct.

Reliability is assessed using the average variance extracted greater than 0.50 and the composite reliability greater than 0.70. Convergent and discriminant validity are confirmed based on the factor loadings greater than 0.60 in exploratory factor analysis but meeting the more stringent guidelines for confirmatory factor analysis of greater than 0.80. In addition, the results are consistent with the published data in the Lu and Ramamurthy (2011) research. Table XVII below presents the pretest reliability and validity of the technological capability scale.

Table XVII: Pretest Technological Capability Scale Reliability and Validity Assessments

<u>Technological Capability</u>	Original Research: Lu/ Ramamurthy (2011)	Pretest Sample
	<u>AVE=0.73,</u> <u>CR=0.91</u>	<u>AVE=0.77,</u> <u>CR=0.90</u>
% of variance explained		77.50%
Supportive of trying new technology	0.72	0.83
Vendor seeks enhancements for technology effectiveness	0.79	0.86
Vendor experiments with new technology	0.94	0.93
Vendor current with technological innovations	0.73	0.90

5.2.2.4 Learning Capability Scale

The learning capability scale was adopted and adapted from Baker, Sinkula and Noordewier (1997) research developing a conceptual framework of learning capability. This scale has been used extensively in the literature. The original scale has three dimensions with eleven survey items; however, five of the eleven are relative to offshore outsourcing of professional services.

Table XVIII: Pretest Learning Capability Scale Reliability and Validity Assessments

	Original Results from Baker, Sinkula, Noordewier	Pretest Sample Results
<u>LEARNING CAPABILITY</u>	<u>CR=0.94</u>	AVE=0.71, <u>CR=0.86</u>
% of variance explained		70.3%
Both firms agree ability to learn is key to competitive advantage		0.83
Both firms agree learning is key to improvement		0.87
Both firms agree employee learning is an investment		0.82
Learning is necessary for organizational survival		0.84

All factors loaded on a single factor loading with 77.5% variance explained and an initial eigenvalue of 3.515, thus measuring unidimensionality of this construct.

Reliability is assessed using the average variance extracted greater than 0.50 and the composite reliability greater than 0.70. Convergent and discriminant validity are confirmed based on the factor loadings greater than 0.60 in exploratory factor analysis

but meeting the more stringent guidelines for confirmatory factor analysis of greater than 0.80. In addition, the composite reliability is consistent with the published data in the Baker, Sinkula and Noordeweir (1997) research. Table XVIII below presents the pretest reliability and validity of the technological capability scale.

5.2.2.5 Service Innovativeness Scale

The service innovativeness scale was adopted from Hogan, Soutar, McColl-Kennedy and Sweeney (2011). These researchers specifically developed a scale for professional service firms innovative capability, a direct relationship to this dissertation study. The original scale was thirteen survey items and this dissertation survey adopted eight of the items.

All factors loaded on a single factor loading with 71.9% variance explained and an initial eigenvalue of 5.752, thus measuring unidimensionality of this construct. Reliability is assessed using the average variance extracted greater than 0.50 and the composite reliability greater than 0.70. Convergent and discriminant validity are confirmed based on the factor loadings greater than 0.60 in exploratory factor analysis but meeting the more stringent guidelines for confirmatory factor analysis of greater than 0.80. In addition, all of the results are consistent or exceed the published data in the Hogan et al (2011) research. Table XIX below presents the pretest reliability and validity of the service innovativeness scale.

Table XIX: Pretest Service Innovativeness Scale Reliability and Validity Assessments

<u>SERVICE INNOVATIVENESS</u>		Original Results Hogan et al <u>AVE=0.70,</u> <u>CR=0.93</u>	Pretest Sample Results <u>AVE=0.73</u> <u>CR=0.94</u>
% Variance Explained			71.90%
Vendor services are higher quality than competitor		0.86	0.87
Vendor offers services radically different than competitors		0.76	0.87
Vendor is innovative		0.62	0.89
Vendor offers unique benefits		0.76	0.89
Vendor offers unique solutions, not previously considered		0.83	0.79
Vendor provides innovative ideas		0.46	0.70
Vendor provides superior benefits		0.97	0.89
Vendor is industry leader		0.93	0.89

5.3 Full Sample Results

To minimize data collection costs from Qualtrics, the survey was distributed to Cleveland State University Alumni whose graduation year was between 1970 and 2005 from the Accounting department within the College of Business or the Engineering department within the College of Engineering. However, the response rate was weak and yielded only 17 completed responses, most from Engineering. The procedures used in

the distribution to CSU Alumni are discussed in Section 4.2.2. These 17 completed responses are incorporated into the 202 full sample data. The remainder of the full sample data collection process was conducted by Qualtrics, using the same survey instrument and similar distribution criteria as enforced for the pretest sample. One new distribution criteria was established: the survey could not be distributed to the same professional service firms as those who completed the survey during the pretest sample. The purpose was to avoid a duplication of survey responses.

This study was designed to use Structural Equation Modeling (SEM) to test the hypotheses. Hair et al (2006) recommends a sample size of 200 when using SEM. The full sample size is 202 completed responses and adequate to conduct SEM..

5.3.1 Full Sample Descriptive Statistics

The full sample contains 202 completed responses. 185 of the 202 responses were collected from Qualtrics, a market research firm. Qualtrics distributes a total of 761 surveys to professional service firms. The descriptive statistics for the collection of data attributed to the market research firm is detailed in this section below:

Table XX: Collection of Qualtrics Full Sample Data

Raw Full Sample Data	Qualtrics Only	
Currently engaged in offshore outsourcing	291	38%
Not currently engaged but was less than 5 years ago	196	26%
Not currently engaged but was greater than 5 years ago	66	9%
Never	208	27%
N=	761	

Interestingly, the percentage of professional service firms who have never been engaged in an offshore outsourcing relationship has dropped from 51% to 27%. The drop in this category was surprising and discussed with the project management team at Qualtrics.

Qualtrics confirmed the survey distribution criteria was enforced and monitored so as to not duplicate responses. Of the remaining 73% with an experience in offshore outsourcing, 291 of 644, or 45.2%, of professional service firms are actively engaged in an offshore outsourcing relationship. 196 of the 644, or 30.4%, are not actively engaged in a relationship but have experienced a relationship in the past five years. The survey instrument was developed so that only these two demographics were given access to complete the entire survey; therefore, the full sample completed response rate was 185 of 487 or a 38% response rate. Those respondents never engaged in an outsourcing relationship or those respondents whose experience is greater than five years ago, were thanked for their time and the survey was terminated. The justification, supporting the termination of responses greater than five years prior, stemmed from the advances in technology and communications during this time period. In addition, the growth of offshore outsourcing and the increased competition among offshore service providers has significantly changed in the past five years. To avoid confounding results, only professional service firms currently engaged or engaged in the past five years were given access to the entire survey instrument. The breakdown of the 185 full sample responses from the narrowed scope of professional service firms was as follows:

Table XXI: Full Sample Breakdown of Professional Service Firms Engaged in Offshore Outsourcing

Professional Service Firms				
Engaged in Offshore Outsourcing Relationship	Qualtrics Only		Full Sample	
Currently engaged in offshore outsourcing	102	52%	108	53%
Not currently engaged but was less than 5 years ago	83	48%	94	47%
N=	185		202	

The 185 completed responses were generated from accounting firms, management consulting, engineering firms and information technology consulting firms. Table XXII shows the breakdown by business activity outsourced to an offshore service provider.

Table XXII: Full Sample Primary Business Activity of Professional Service Firm

	Qualtrics Only		Full Sample	
Accounting	39	21%	41	20%
Management Consulting	48	26%	50	25%
Engineering	62	34%	72	36%
Information Technology	36	19%	39	20%
N=	185		202	

The survey instrument was developed to also collect the type of offshore outsourcing relationship. The three types of offshore outsourcing were discussed in section 1.2, an Introduction to Offshore Outsourcing: tactical, strategic and transformational. In addition, as previously discussed, a recommendation was made by a senior manager from a Big Four Accounting Firm to include “multiple engagements” in the survey question on the type of offshore outsourcing relationship. The results were surprising to the magnitude of firms engaged in multiple concurrent relationships. Table XXIII shows the composition by type of engagement.

Table XXIII: Full Sample Offshore Outsourcing Type of Engagement including Multiple Engagements

	Qualtrics Only		Full Sample	
Short-term tactical	63	34%	67	33%
Long-term strategic	76	41%	83	41%
Long-term transformational	19	10%	22	11%
Multiple engagements	27	15%	30	15%
N=	185		202	

Those responses selecting multiple engagements were given an additional survey question. This survey item was a ratio formatted item in which the response was forced to equal 100% in order to proceed. Respondents were asked to describe the percentage of each type of engagement. For example, one response showed 20% short-term tactical and 80% long term transformational. The instructions directed the respondent to answer the remainder of the survey considering only the most significant or largest percentage, engagement. The multiple engagements responses were manually analyzed to examine the 100% conformance and to recode the type to tactical (1), strategic (2) or transformational (3) based on the largest percentage. The recoding of these responses occurred in a duplicated file, so as to maintain a file with the original authenticity of the results. Table XXIV shows the type of professional service firm offshore outsourcing relationships.

Table XXIV: Full Sample Offshore Outsourcing Type of Engagement Restated

	Qualtrics Only		Full Sample	
Short-term tactical	74	40%	79	39%
Long-term strategic	88	48%	95	47%
Long-term transformational	23	12%	28	14%
Multiple engagements	0		0	
N=	185		202	

The geographic location of offshore service provider was also assessed in the pretest data set. The results show 84%, or 147 responses, of the professional service firms are engaged in a relationship with an offshore service provider located in an emerging economy. India and China dominate this 84% as the two largest countries of choice. The

remaining 16%, or 28 responses, show geographic diversity in locational choice electing service providers in Canada, England, Russia, Europe, Australia, Israel, and Mexico.

Data was also collected on firm size as shown in Table XXV.

Table XXV: Full Sample Data for Firm Size

	Qualtrics Only		Full Sample	
20-200 employees	55	30%	61	30%
201- 500 employees	37	20%	40	20%
501- 1,500 employees	38	20.5%	40	20%
1,501 - 5,000 employees	30	16%	31	15%
Greater than 5,000 employees	25	13.5%	30	15%
N=	185		202	

The last demographic data collected from the survey instrument was the length of the offshore outsourcing relationship. Table XXVI shows the responses. These results allow this study to use the length of the engagement as a proxy for the control variable of experience in offshore outsourcing.

Table XXVI: Full Sample Experience of Professional Service Firms in Offshore Outsourcing

Experience of firms	Qualtrics Only		Full Sample	
First year of offshore outsourcing experience	4	2%	4	2%
1 - 3 years of offshore outsourcing experience	59	32%	64	32%
4 - 6 years of offshore outsourcing experience	70	37.5%	75	37%
7 - 10 years of offshore outsourcing experience	36	19.5%	38	19%
Greater than 10 year experience	16	9%	21	10%
N=	185		202	

Comparing the results of the Qualtrics only and Full Sample of n=202, including the 17 CSU Alumni, the samples are statistical consistent. The type of offshore outsourcing,

including the allocation of multiple engagements, maintains consistent percentages of total population for both the Qualtrics and Full Sample data sets. In addition, control variables of firm size, years of offshore outsourcing experience, and the location of the service provider remain consistent. As the result of the sample consistency, this dissertation utilizes the n=202 for the sample size.

5.3.2 Full Sample Frequency Distributions

The last full sample descriptive statistic is a summary of frequencies by construct. Each construct, with the exception of offshore outsourcing success, is a seven-point scale. As reflected in Table XXVII, all mean and median calculations by construct fall above the midpoint of the scale. There was not a problem with missing data due to the criteria established in the relationship with Qualtrics. A completed survey required no missing data to be included as a completed survey; therefore, all data is generated directly from the respondent.

Table XXVII: Full Sample Construct Frequencies

		COLLAB	TECH	LEARN	INNOV	SUCCESS
N	Valid	202	202	202	202	202
	Missing	0	0	0	0	0
	Mean	5.48	5.44	5.62	5.21	4.10
	Median	5.63	5.50	5.75	5.25	4.17
	Mode	6.38	6.00	6.00	6	4.00
	Std. Deviation	0.99	1.00	0.95	1.12	0.63
	Minimum	1.00	2.50	3.00	1.00	1.00
	Maximum	7.00	7.00	7.00	7.00	5.00

Several of the frequency results are of interest to be noted. The highest mean value is learning capability. This can be interpreted to reflect the importance of the

client's perception of the service provider's ability to learn the knowledge-specific outsourced service. In addition, the minimum value of the learning capability construct was 3 on the seven point Likert scale. This means that there were not any respondents that disagreed with the learning capability items such as learning as an investment or learning is the key to competitive advantage.

5.3.2 Normality and Multicollinearity of Data

The use of SEM requires the assumption of multivariate distribution of data; however, minor deviations from this assumption will not produce invalid conclusions. One test of normality is an examination of the data for skewness or kurtosis. Examination of the skewness statistic resulted in all of the constructs negatively skewed. An examination of the kurtosis statistic resulted in a negative technological capability and learning capability statistic while all other constructs had positive kurtosis statistics. The values fell within the benchmarks of ± 2.0 showing normality of the full sample data.

Multicollinearity reflects the shared variance between variables and is identified through several examinations. The first test of assessing multicollinearity is the examination of the correlation matrix. Correlations should be greater than 0.30 to show sufficient correlation for factor analysis but below 0.90 to avoid substantial collinearity (Hair, 2006: 227). In examining the Pearson correlation matrix, all correlations fall within the recommended guidelines. However, the correlation matrix is not the only recommended method of assessing collinearity. An examination of tolerance and variance inflation factor is also recommended. Tolerance is the amount of variability of the independent variable not explained by other independent variables while variance inflation factor is the inverse of tolerance. According to Hair et al (2006: 230), VIF

values greater than 5.0 and tolerance levels below 0.19 indicates high correlations (greater than 0.90) among variables. The VIF values range from 1.7-3.1. Both of these tests of multicollinearity indicate appropriate levels for use in structural equation modeling.

5.3.4 Testing Procedures

Psychometric properties of the scales were evaluated using multiple examination techniques. Anderson and Gerbing (1988) recommend a two-stage procedure to testing the hypothesized model. First, the pretest sample was examined for dimensionality, reliability, construct, convergent and discriminant validity. Dimensionality was assessed from the single factor loadings coupled with the high percent of variance extracted from the first factor loading. Reliability was evaluated on the resulting cronbach alpha greater than 0.70. Validities were examined with average variance extracted and composite reliability to confirm internal consistency. Second, structural equation modeling was used to test the hypothesized relationships. The following section demonstrates the results and the evaluation of the structural equation model.

5.3.5 Assessment of Response Bias and Common Method Bias

As previously stated, analysis for nonresponse bias was not pertinent to this study because of the use of the market research firm in the collection of survey responses. The market research firm screened out any survey results with missing data; therefore, any results lacking full responses were not included in the sample population. However, to consider other response bias, the sample was split in two halves based on the respondent completion date of the survey. The two halves were compared on demographic variables of firm size based on number of employees, type of outsourcing relationship, and length

of outsourcing relationship. The comparison of early respondent to late respondents is shown in Table XXVIII.

Table XXVIII: Assessment of Response Bias

		<u>EARLY</u> <u>RESPONDENT</u>	<u>LATE</u> <u>RESPONDENT</u>
Size	Min/Max	1 / 5	1 / 5
	Mean	2.74	2.65
	T-Value	18.58	18.77
	Standard Error		
	Mean	0.15	0.14
Type	Min/Max	1 / 3	1 / 3
	Mean	1.73	1.76
	T-Values	26.03	26.19
	Standard Error		
	Mean	0.07	0.07
Length	Min/Max	1 / 5	1 / 5
	Mean	2.99	3.09
	T-Value	29.61	30.33
	Standard Error		
	Mean	0.10	0.10

As shown on Table XXVIII, there are not significant differences between early respondents and late respondents; thus drawing the conclusion that response bias is not confounding the results.

Common method bias must also be assessed because the survey was completed by self-reporting respondents using the same survey instrument during one period of time. Common method variance can result in measurement error, confounding the estimates of the relationships between constructs. Several approaches to evaluating the absence of common method bias were adopted for this study. First, procedures were instituted in the survey process, such as protecting respondent confidentiality, reducing item

ambiguity with face validity tests, and creating unique survey blocks within the survey instrument for governance survey items, capability survey items and success items (Wang et al, 2008). Second, following the recommendations of Podsakoff et al (2003), Harman's one-factor test and exploratory factor analysis was evaluated across all variables. All variables were used in the exploratory principal component factor analysis to determine the number of variables necessary to account for the cumulative variance extracted. Common method bias will result in a significant single factor with the majority percentage of variance extracted. The results confirm five factors with eigenvalues greater than or near 1.0 contributing to a cumulative percent of variance extracted at 69.998% using principal component and maximum likelihood extraction without rotation. Of the five factors, there is not a single factor carrying the overwhelming majority of the variance extracted with the first factor accounting for 38%. In addition, the single factor model (Podsakoff et al, 2003; Yalcinkaya, Calantone, Griffith, 2007) yielded insignificant results with a chi-square/degrees of freedom = 83.6, GFI = 0.482, CFI = 0.292, and RMSEA = 0.641. These results indicate that there is not significant common method bias confounding the interpretation of results.

The third assessment of common method bias follows the procedure established by Netemeyer, Boles, McKee, McMurrian (1997) and followed by Yalcinkaya et al (2007) and Wang et al (2009). In this assessment, two models are compared: model one constrains the factor loadings to zero while the second model allows the loadings to be estimated freely (Yalcinkaya et al 2007; Wang et al, 2009). The difference between the two models represents a direct test of common method bias: the larger the difference, the

less likely the existence of common method bias (Wang et al, 2009). The chi-squared difference is 69.727; thus common method bias does not affect the results of this study.

5.3.6 Full Sample Reliability and Validity Assessment

In previous sections of this chapter of the study, tables were created for each variable summarizing the language used in the survey item, the original results from the prior researcher and the pretest results. Table IX through Table XIII show these details and the recommended guidelines to assessing reliability and validity using the pretest sample results. However, confirmatory factor analysis is required for the first step of the SEM procedures. Table XXIX below summarizes full sample confirmatory factor analysis results.

Table XXIX: Summary of Full Sample Reliability and Validity Assessments

	Pretest AVE	Full Sample AVE	Pretest CR	Full Sample CR	Full Sample Factor Loadings	Pretest % Variance Extracted	Full % Variance Extracted
Offshore Outsourcing Success	0.54	0.78	0.63	0.92	0.73 - 0.84	60.0%	63.3%
Collaboration	0.56	0.64	0.89	0.92	0.77 - 0.85	56.5%	63.5%
Technological Capability	0.77	0.9	0.75	0.89	0.84 - 0.92	77.5%	74.7%
Learning Capability	0.71	0.86	0.68	0.83	0.72 - 0.87	70.3%	69.6%
Service Innovativeness	0.73	0.94	0.71	0.93	0.79 - 0.87	71.9%	69.8%

The results confirm the dimensionality, reliability and the validity through the evaluation of single factor loadings greater than 0.70, average variance extracted greater than 0.50, and composite reliability greater than 0.70. All of the average variance extracted results,

as well as the composite reliability results improved from the pretest sample to the full sample. Each scale has been confirmed with respect to dimensionality, reliability, and validity for the full sample data set.

5.4 Analysis of Model

5.4.1 Structural Equation Model Fit

The structural equation model was evaluated using the chi-squared divided by the degrees of freedom, DELTA2 index (Bollen, 1989), the goodness of fit index (GFI), the comparative fit index (CFI) (Bentler, 1990), the root mean square error of approximation (RMSEA) (Bollen and Long) and the normed fit index (NFI) (Bentler and Bonnett, 1980). These fit indices have been shown to be the most stable (Gerbing & Anderson, 1992; Hu & Bentler, 1999). These statistical results confirm a good fit between the data and the model. All of the results are below the recommended value in the literature. The model fit indices include RMSEA, GFI, AGFI and CFI. RMSEA, root mean square error of approximation, is known as one of the most informative measures of goodness of fit. RMSEA is relative to the confidence interval at 90% if below 0.05. Additional measures of goodness of fit include Chi-square divided by degrees of freedom, NFI (Delta1), and IFI (Delta2).

Table XXX: Model Fit Indices

	RMSEA	GFI	AGFI	CFI	CMIN/ DF	NFI (Delta1)	IFI (Delta2)
Default Model	0.039	0.98	0.944	0.994	1.31	0.977	0.944
Independent Model	0.355	0.465	0.312	0	23.36	0	0
Recommended Fit	< 0.05	close to 1	close to 1	close to 1	Below 2	close to 1	close to 1

The hypothesized model with 31 items to encompass the 5 constructs resulted in an excellent fit to the data, including DELTA2 = 0.994, GFI = 0.980, and CFI = 0.994. Additionally, the 31 items were found to be reliable and valid, as measured by the Average Variance Extracted ranging from 0.63 to 0.75 (Anderson & Gerbing, 1988), and the Composite Reliability ranging from 0.83 to 0.93 (Fornell and Larcker, 1981) and previously discussed in sections 4.4.2.1 to 4.4.2.5. Lastly, discriminant validity was verified using the procedure outlined by Fornell and Larcker (1981) and supported by Hair et al (2006). These authors suggest the test for discriminant validity is “the variance extracted estimates should be greater than the squared correlation estimate.” This means that when comparing two constructs, such as Collaboration and Learning Capability, the AVE of each should be greater than the shared variance between the two constructs. This verifies discriminant validity. All of these results evaluated as a whole confirm empirical support of the model. The next section will examine the individual hypotheses and the relationship among the constructs.

5.4.2 Analysis of Hypotheses

Testing each hypothesis entails examining the maximum likelihood estimate and the p-value for each hypothesized relationship. Maximum likelihood estimates are used to interpret the relationships of the model such that as one variable increases, the other variable will increase (if positive) by the percentage of the estimate. For example, the relationship between collaboration and technological capability confirms as collaboration increases by 1, technological capability increases by 0.602. P-values of greatest significance, where $p < 0.001$, are reflected by ***. The estimates, standard error and p-values can be seen in Table XXXI.

Table XXXI: Tests of Significance

Hypotheses	Relationship	Maximum Likelihood Est	Standard Error	P- Value	
H1a	Collaboration to Technology	0.602	0.057	***	
H1b	Collaboration to Learning	0.230	0.053	***	
H2a	Technology to Svc Innovativeness	0.774	0.069	***	
H2b	Technology to OO Success	0.119	0.053	0.023	
H2c	Technology to Learning	0.581	0.052	***	
H3a	Learning to Svc Innovativeness	0.197	0.073	0.007	
H3b	Learning to OO Success	-0.026	0.045	0.565	NS
H4	Svc Innovativeness to OOSuccess	0.323	0.041	***	

Hypothesis 1a: Collaboration is positively related to the technological capability of the offshore service provider in the outsourcing relationship between professional service firms.

Hypothesis 1a, the relationship between collaboration and technological capability, is strongly supported. The path coefficient of 0.60 is significant at the $p < 0.001$ level. Hence, collaboration between the client and vendor firms engaged in an offshore outsourcing relationship significantly influences the client perception of the technological capabilities of the offshore service provider.

Hypothesis 1b: Collaboration is positively related to the learning capability of the offshore service provider in the outsourcing relationship between professional service firms.

Hypothesis 1b, the relationship between collaboration and learning capability, is strongly supported. The path coefficient of 0.23 is significant at the $p < 0.001$ level.

Hence, collaboration between the client and vendor firms engaged in an offshore outsourcing relationship significantly influences the client perception of the offshore service providers learning capability.

Hypothesis 2a: Technological capability is positively related to the service innovativeness of the offshore service provider in the outsourcing relationship between professional service firms.

Hypothesis 2a, the relationship between technological capability and service innovativeness, is strongly supported. The path coefficient of 0.77 is significant at the $p < 0.001$ level. Hence, the technological capability of the offshore service provider significantly influences the client perception of the innovativeness of the offshore service provider.

Hypothesis 2b: Technological capability is positively related to the offshore outsourcing success of the client firm in the relationship between professional service firms.

Hypothesis 2b, the relationship between technological capability and offshore outsourcing success, is strongly supported. The path coefficient of 0.12 is significant at the $p < 0.05$ level. Hence, the success of the offshore outsourcing relationship is significantly influenced by the client perception of the technological capability of the offshore service provider.

Hypothesis 2c: Technological capability is positively related to the learning capability of the offshore service provider in the relationship between professional service firms.

Hypothesis 2c, the relationship between technological capability and learning capability, is strongly supported. The path coefficient of 0.58 is significant at the $p < 0.001$ level. Hence, the learning capability of the offshore service provider is significantly influenced by the client perception of the technological capability of the offshore service provider.

Hypothesis 3a: Learning capability is positively related to the service innovativeness of the offshore service provider in the outsourcing relationship between professional service firms.

Hypothesis 3a, the relationship between learning capability and service innovativeness, is strongly supported. The path coefficient of 0.20 is significant at the $p < 0.01$ level. Hence, the learning capability of the offshore service provider significantly influences the client perception of the innovativeness of the offshore service provider.

Hypothesis 3b: Learning capability is positively related to the offshore outsourcing success of the client firm in the relationship between professional service firms.

Hypothesis 3b, the relationship between learning capability and offshore outsourcing success, is not supported. The path coefficient of -0.26 is not significant. Hence, the success of the offshore outsourcing relationship is not influenced by the client perception of the learning capability of the offshore service provider. This is the only insignificant relationship in the model.

Hypothesis 4: Service innovativeness is positively related to the offshore outsourcing success of the client firm in the relationship between professional service firms.

Hypothesis 4, the relationship between service innovativeness and offshore outsourcing success, is strongly supported. The path coefficient of 0.32 is significant at the $p < 0.001$ level. Hence, the success of the offshore outsourcing relationship is significantly influenced by the client perception of the innovativeness of the offshore service provider.

In summary, the hypothesized relationships in the proposed model were significantly supported, with the exception of one relationship. Examination of the path estimates predicts strong relationships within the model. A summary of the hypotheses and the related results are presented in Table XXXII.

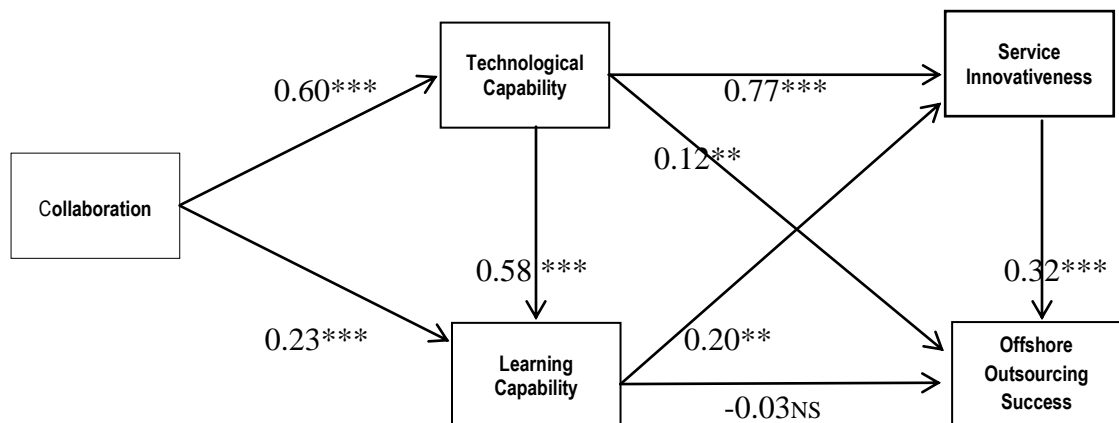
Table XXXII: Summary of Hypotheses

<u>Hypothesis</u>	<u>Relationship</u>	<u>Predicted Effect</u>	<u>Finding</u>
H1a	Collaboration is positively related to the technological capability of the offshore service provider in the outsourcing relationship between professional service firms.	Positive	Significant Support
H1b	Collaboration is positively related to the learning capability of the offshore service provider in the outsourcing relationship between professional service firms.	Positive	Significant Support
H2a	Technological capability is positively related to the service innovativeness of the offshore service provider in the outsourcing relationship between professional service firms.	Positive	Significant Support
H2b	Technological capability is positively related to the offshore outsourcing success of the client firm in the relationship between professional service firms.	Positive	Significant Support
H2c	Technological capability is positively related to the learning capability of the offshore service provider in the relationship between professional service firms.	Positive	Significant Support

H3a	Learning capability is positively related to the service innovativeness of the offshore service provider in the outsourcing relationship between professional service firms.	Positive	Significant Support
H3b	Learning capability is positively related to the offshore outsourcing success of the client firm in the relationship between professional service firms.	Negative	Not Significant
H4	Service innovativeness is positively related to the offshore outsourcing success of the client firm in the relationship between professional service firms.	Positive	Significant Support

5.4.3 Structural Model with Standardized Parameter Estimates

Figure 6: Structural Model with Standardized Parameter Estimates



P<0.001 ***

P<0.05 **

P>0.10 NS

CHAPTER VI

DISCUSSION OF RESULTS

6.1 Discussion of Results

This dissertation study was created to achieve a greater understanding of relational governance and service capabilities necessary for a successful offshore outsourcing relationship between professional service firms, especially from the U.S. client perspective. More specifically, collaboration has been extensively discussed in the buyer-supplier relationship but has limited research in the client-vendor offshore outsourcing relationship; therefore, this study aims to achieve greater knowledge of the influence of collaboration in this business to business relationship. More than 200 U.S. professional service firms significantly confirmed the importance of a collaborative relationship on the technological and learning capabilities of the service provider. A second set of relationships were significantly confirmed between the service providers technological and learning capabilities and their ability to create innovative solutions for the client firm in achieving success. The antecedents to offshore outsourcing success were not as clearly identified as the hypothesized model suggested. The professional service firms surveyed responded with overwhelming support for the influence of

technological capability and innovativeness on the offshore outsourcing success. Yet, somewhat surprising, learning capability was not significant as an antecedent to success. This discussion will investigate potential reasons for this lack of significance between the vendor's learning capability and the success of the relationship.

Collaboration is an active and engaged relationship between two partnering firms intent on participating in a shared relationship through open-mindedness, shared visions, and a willingness to exchange pertinent information. The collaborative relationship results from a sense a commitment between partners that each firm is willing to work through short term challenges to meet and sustain long term goals. The stronger the communication skills between partnering firms, the greater the likelihood for the development of a collaborative relationship. Timeliness, accuracy and a willingness to share information helps to build and strengthen the relationship. But this does not happen overnight. The collaborative relationship is a social relationship in that it must be nurtured and worked toward as a common goal: it requires both parties to be committed and engaged for collaboration to be the result.

Building a collaborative relationship is critical to professional service firms because of the intensity of the services provided. These are not simplistic relationships, whereby if this relationship does not meet expectations, the client firm can move on to the next service provider in line. Professional services are specific, high knowledge engagements requiring training, education, and the ability to process information at a higher level. Just as it takes time to build, train and educate the necessary talent, so too is the time required to building the collaborative relationship. This study concludes the nature of the rendered

professional services influences the importance of collaboration and hence the magnitude of the significance in the results of the structural equation modeling analysis.

The three most significant relationships in this model revolve around the use of technological capabilities in the offshore outsourcing relationship. This discussion will draw conclusion from these significant results and the importance of technology in professional service firms. Technological capabilities are viewed as the service provider's willingness to invest in technological resources to support the outsourcing relationship in meeting the expectations of the client firm. This study confirmed the importance of a collaborative relationship on the willingness to expend resources to meet or exceed client expectations. Why would the service provider be willing to make this additional investment? In a collaborative relationship, there is an inference on the stability of the relationship through a commitment toward a shared vision. The collaborative relationship has taken an investment of time, energy, commitment and knowledge-intensive human capital to achieve the degree of willingness to commit to additional technological resources. In addition, professional service firms must focus on the development of human capital supported by the technological capability of the firm. The highly skilled human capital is the revenue generator for professional service firms; however, the technological capabilities are integral to the effectiveness of the completion and transfer of services.

The relationship between technological capability and learning capability has not been extensively researched in academic literature; however, based on the degree of support in the model, the use of technology to support and encourage the ability to learn

shows significant statistical power. Based on the limited prior research, this significant relationship is established because technological capabilities assist and encourage the acquisition and assimilation of knowledge into the learning process.

The strongest relationship was determined to be between technological capabilities and innovativeness. Innovativeness requires a thought process that challenges the status quo and thinks “outside the box.” When a firm is willing to experiment with and invest in the latest technological advances, it sends the message to employees of the willingness of the firm to attempt new ideas in enhancing the business. Innovativeness is a culture that must be accepted within the organization: remaining current on new technological advancements reflects the culture of innovation. The result of this survey supports these assertions.

The creativity of innovativeness develops from the existing knowledge and capabilities of the firm. Learning capability, the ability to process new information with an open mind, is important to creating innovative ideas. However, just because an employee is capable of assimilating new knowledge into learning capability, this doesn't always mean they have the open-minded attitude to think outside the box. The relationship between learning and innovativeness is significant at the highest level of $p < 0.001$; however, the parameter estimate is one of the weaker estimates. This leads to the conclusion that the ability to learn and process information is important in the generation of innovative ideas; however, it doesn't necessarily signify the ability to create new ideas.

There was one non-significant relationship within this dissertation model: the relationship between learning capability and offshore outsourcing success. The prior literature supports the existence of this relationship, yet the results of the survey data shows otherwise. Why? We examine the literature of Winter (2000: 988) who states “a significantly higher standard must be achieved for a capability to play a role in the success of an organization.” Learning capability is an interactive and deliberate process of articulating and internalizing knowledge, requiring collaboration, as confirmed from the statistical results. However, Winter (2000) asserts learning to be a time-consuming process by which time is taken away from the generation of revenue; therefore, learning is a cost to the business. When learning has to be viewed from the cost/benefit relationship and the requisite learning has occurred to reach the desired threshold, learning is less significant to the success of an organization (Winter, 2000). As a follow-up to be discussed in future research ideas, based on the literature of Winter, does learning interact with technology or innovation to strengthen the success of the relationship?

In summary, this dissertation study has contributed to the offshore outsourcing literature from several fronts. First, the examination of collaboration within the client-vendor relationship is a contribution to the literature. Collaboration is an integral component in the offshore outsourcing relationship necessary to strengthen the capabilities of the offshore service provider. Second, technological capabilities and learning capabilities significantly influence the ability of the service provider to present innovative ideas into the client-vendor relationship. Third, technological capabilities

influence the success of the relationship significantly more than learning capability. This is one of the most interesting of the findings of this study.

6.2 Managerial Contributions

What is collaboration and how is it measured?

Collaboration is a multidimensional construct encompassing the dynamic interactions of two partnering firms with a shared vision, committed to the objectives of the tasks, and willing to exchange information, as necessary, to meet the common goals of both parties. This is measured with elements of information exchange, communication, and commitment.

Is collaboration an essential governance mechanism to be developed between the client and vendor relationship? Does collaboration influence the vendor's willingness to develop or strengthen their technological capabilities, as perceived by the client firm?

Prior literature has shown the significance of collaboration on the buyer-supplier relationship. This research has expanded the literature stream into offshore outsourcing client-vendor relationships. Collaboration is an essential governance mechanism within the offshore outsourcing relationship, building commitment and trust between the two parties. Based on the statistical significance of the relationship, it is fair to conclude collaboration has an influential role on the service providers willingness to further develop their technological capabilities.

Does collaboration influence the vendor's willingness to adopt of culture of learning, assessed from the client perspective?

A collaborative relationship encourages the offshore service provider to enhance their willingness to learn. The sense of belonging to a long-term, committed relationship allows the service provider to strengthen the organizational culture of learning. However, the strength of this relationship, relative to technological capabilities, is of lower significance. This means the collaboration - technology link is stronger than the collaboration – learning link. This can be explained in part from the Winter (2000) article in which he explains learning is required to a minimum threshold then the learning capability slows. In professional service firms, the learning is a continuous process to maintain the current standards; yet learning beyond the requirements is not necessarily required.

Does technological capability influence the willingness to learn?

Technology and learning are both strategic capabilities of the organization. Is there an inter-relationship between these two capabilities? Yes. Learning is influenced by technology. According to the statistical results and limited prior literature, technology aids in the acquisition and assimilation of knowledge into the learning process. Professional service firms are human capital and technologically intensive. These two capabilities are the “backbone” of the firm.

Does the willingness and ability to learn influence the degree of innovativeness?

Of the significant relationships within this dissertation model, this is the second weakest (yet still significant). Learning is not a continuous linear relationship because a threshold is reached in which learning slows. The willingness to acquire and assimilate new knowledge does not necessarily relate to the ability to generate creative unique solutions.

Do technological capabilities influence the degree of service innovativeness?

This is the strongest and most significant of all the relationships within this model. Technology significantly influences the innovativeness of the service provider because technology can be used to transform the knowledge into creative ideas. In professional service firms, specifically management consulting or engineering, technology plays a critical role in the development of innovative, unique solutions.

What key factors contribute to a successful offshore outsourcing relationship from the client perspective?

The service providers technological capabilities and degree of innovativeness influence the success of the offshore outsourcing relationship with innovativeness as the stronger of the two capabilities. Technology is important; however, when the service provider offers unique and superior solutions, innovativeness triumphs over technology.

The results of this dissertation study have come from the U.S. client perspective. This is a unique viewpoint in the literature as most of the prior research is directed at the service provider. Managerial implications for this dissertation study will be useful to U.S. based professional service firms engaged in offshore outsourcing relationships.

Taking the time to develop a collaborative relationship is one of the keys to a successful engagement.

6.3 Limitations

As is the case in any research projects, there will always be limitations. The specific scope of this examination is a limitation in that generalization beyond professional service firms may be limited. The characteristics from this sector of the service industry are unique and create challenges not faced other service industries. However, the statistical significance of this study is high; therefore, there has been a trade-off between significance and generalizability.

Another limitation of this study is the lack of geographic boundaries on the location of the offshore service provider. Cultural differences and psychic distance is not evaluated in this study. This could create limitations on the willingness to form collaborative relationships or the amount of time required to form these types of relationships. Even though the U.S. firm was surveyed for their perspective, cultural differences can influence these perceptions.

Finally, the self-reporting survey method of data collection leads to limitations of method bias. Multiple data collection method could improve reliability by reducing measurement error. These limitations are suggestions for areas of improvement on future research and do not minimize the significance of the results.

6.4 Future Research

This dissertation study opens the door to several future research studies. First, this study focused on collaboration in the offshore outsourcing relationship. Future research should narrow the scope to only strategic or transformational outsourcing

engagements as these engagements are likely to require longer commitments, greater resource commitment and the exchange of proprietary information. Transformational outsourcing usually results in joint ventures or strategic alliances, so narrowing the scope would be beneficial to that segment of the outsourcing partnerships. Second, again with the focus on transformational offshore outsourcing, the dynamic capability view needs to be expanded in the literature relative to this type of outsourcing. This dissertation focused on the strategic service capabilities, a distinction from dynamic capabilities. Third, the geographic location of the service provider could be an interesting distinction within the literature. Are the antecedents of a successful offshore outsourcing relationship the same if the provider is located in an emerging market versus a developed market? Is the strength of the relationship between collaboration and service capabilities similar based on the location of the service provider? These future research ideas are areas of interest

Bibliography

- Afuah, A. (2002). Mapping technological capabilities into product markets and competitive advantage. *Strategic Management Journal*, Vol. 23, No. 2, 171 - 180.
- Aguilera, R. V., & Jackson, G. (2010). Comparative and International Corporate Governance. *The Academy of Management Annals*, Vol. 4(1), 485 - 556.
- Anderson, A., Benavides-Espinosa, M., & Mohedano-Suanes, A. (2011). Innovation in services through learning in a joint venture. *The Service Industries Journal*, Vol. 31, No. 12, 2019 - 2032.
- Anderson, J., & Gerbing, D. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, Vol. 103, 411 - 423.
- Baker, W., & Sinkula, J. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the Academy of Marketing Science*, Vol. 27, No. 4, 411 - 428.
- Bandyopadhyay, J., & Hall, L. (2009). Offshoring of Tax Preparation Services by U.S. Accounting Firms: An Empirical Study. *Advances in Competitiveness Research*, Vol. 17, Issue 1/2, 71 - 89.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, Vol. 17, No. 1, 99-120.
- Battor, M., & Battor, M. (2010). The impact of customer relationship management capability on innovation and performance advantages: Testing a mediated model. *Journal of Marketing Management*, Vol. 26, No. 9, 842 - 857.
- Bentler, P. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin*, Vol. 107, 238 - 246.
- Bentler, P., & Bonnett, D. (1980). Significance Tests and Goodness of Fit in the Analysis of Covariance Structures. *Psychological Bulletin*, Vol. 88, 588 - 606.
- Bertrand, O., & Mol, M. (2013). The antecedents and innovation effects of domestic and offshore R&D outsourcing: The contingent impact of cognitive distance and absorptive capacity. *Strategic Management Journal*, Vol. 34, No. 6, 751 - 760.
- Bharadwaj, A. (2000). A resource-based perspective on information technology capability and firm performance: An empirical investigation. *MIS Quarterly*, Vol. 24, No. 1, 169 - 196.

- Bhat, J., Gupta, M., & Murthy, S. (2006). Overcoming Requirements Engineering Challenges: Lessons from Offshore Outsourcing. *IEEE Software*, Vol. 23, No. 5, 38-44.
- Bollen, K. (1989). *Structural Equations with Latent Variables*. New York: John Wiley & Sons.
- Bunyaratavej, K., Doh, J., Hahn, E. D., Lewin, A. Y., & Massini, S. (2011). Conceptual Issues in Services Offshoring Research: A Multidisciplinary Review. *Group & Organizational Management*, Vol. 36(1), 70 - 102.
- Bustinza, O., Molina, L., & Gutierrez, L. (July 2010). Outsourcing as seen from the Perspective of Knowledge Management. *Journal of Supply Chain Management*, Vol. 46, No. 3, 23 - 39.
- Cainelli, G., Evangelista, R., & Savona, M. (2006). Innovation and economic performance in services: a firm-level analysis. *Cambridge Journal of Economics*, Vol. 30, 435 - 458.
- Calantone, R., Cavusgil, T., & Zhao, Y. (2002). Learning orientation, firm innovation capability and firm performance. *Industrial Marketing Management*, Vol. 31, 515 - 524.
- Chakrabarty, S., Whitten, D., & Green, K. (Winter 2007-2008). Understanding Service Quality and Relationship Quality in IS Outsourcing: Client Orientation & Promotion, Project Management Effectiveness, and the Task-Technology-Structure Fit. *Journal of Computer Information Systems*, 1-14.
- Chang, Y. B., & Gurbaxani, V. (Dec 2012). Information Technology Outsourcing, Knowledge Transfer, and Firm Productivity: An Empirical Analysis. *MIS Quarterly*, Vol. 36(4), 1043 - 1063.
- Charterina, J., & Landeta, J. (2013). Effects of Knowledge-sharing Routines and Dyad-based Investments on Company Innovation and Performance: An Empirical Study of Spanish Manufacturing Companies. *International Journal of Management*, Vol. 30, No. 1, 20 - 39.
- Chenet, P., Dagger, T., & O'Sullivan, D. (2010). Service quality, trust, commitment, and service differentiation in business relationships. *Journal of Services Marketing*, Vol. 24, No. 5, 336 - 346.
- Coase, R. (1937). The nature of the firm. *Economica*, Vol. 4, No. 16, 386 - 405.

- Cohen, W., & Levinthal, D. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, Vol. 35, No. 1, 128 - 152.
- Contractor, F., Kumar, V., Kundu, S. K., & Pedersen, T. (Dec 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*, Vol. 47(8), 1417 - 1433.
- Cooper, D., Hinings, B., Greenwood, R., & Brown, J. (1996). Sedimentation and Transformation in Organizational Change: The Case of Canadian Law Firms. *Organization Studies*, Vol. 17, Issue 4, 623 - 647.
- Crook, T. R., Ketchen, D., Combs, J., & Todd, S. Y. (2008). Strategic Resources and Performance: A Meta-Analysis. *Strategic Management Journal*, Vol. 29, 1141-1154.
- Cullen, J. B., Johnson, J. L., & Sakano, T. (2000). Success Through Commitment and Trust: The soft side of strategic alliance management. *Journal of World Business*, Vol. 35, 223 - 240.
- Das, T. K., & Teng, B.-S. (2001). Trust, Control, and Risk in Strategic Alliances: An Integrated Framework. *Organization Studies*, Vol. 22 (2), 251 - 283.
- DeLuca, L. M., & Atuahene-Gima, K. (2007). Market Knowledge Dimensions and Cross-Functional Collaboration: Examining the Different Routes to Product Innovation Performance . *Journal of Marketing*, Vol. 71, 95 - 112.
- Demirbag, M., & Glaister, K. (2010). Factors Determining Offshore Location Choice for R&D Projects: A Comparative Study of Developed and Emerging Regions. *Journal of Management Studies*, Vol. 48, No. 8, 1534 - 1560.
- Deng, C. (2012). Knowledge Transfer to Vendors in Offshore Information Systems Outsourcing: Antecedents and Effects on Performance. *Journal of Global Information Management*, Vol. 20, No. 3, 1 - 22.
- Deng, C.-P., Mao, J.-Y., & Wang, G.-S. (2013). An empirical study on the source of vendors relational performance in offshore information systems outsourcing. *International Journal of Information Management*, Vol. 33, 10 - 19.
- Dhanaraj, C., Lyles, M., Steensma, H., & Tihanyi, L. (2004). Managing tacit and explicit knowledge transfer in IJVs: the role of relational embeddedness and the impact on performance. *Journal of International Business Studies*, Vol. 35, 428 - 442.

- DiGregorio, D., Musteen, M., & Thomas, D. E. (2008). Offshore Outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies*, 1 - 20.
- Doh, J. P. (May 2005). Offshore Outsourcing: Implications for International Business and Strategic Management Theory and Practice. *Journal of Management Studies*, Vol. 42(3), 695 - 704.
- Dwyer, F., Schurr, P., & Oh, S. (1987). Developing Buyer-Seller Relationships. *Journal of Marketing*, Vol. 51, 11 - 27.
- Eisingerich, A. B., Rubera, G., & Seifert, M. (May 2009). Managing Service Innovation and Interorganizational Relationships for Firm Performance. *Journal of Service Research*, Vol. 11(4), 344 - 356.
- Ellram, L., Tate, W., & Billington, C. (2008). Offshore outsourcing of professional services: A transaction cost perspective. *Journal of Operations Management*, Vol. 26, No. 2, 148 - 163.
- Eng, T., & Wong, V. (2006). Governance mechanisms and relationship productivity in vertical coordination for new product development. *Technovation*, Vol. 26, No. 7, 761 - 769.
- Erramilli, M. (1990). Entry mode choice in service industries. *International Marketing Review*, Vol. 7, Issue 5/6, 50 - 63.
- Everaert, P., Sarens, G., & Rommel, J. (2010). Using Transaction Cost Economics to explain outsourcing of accounting. *Small Business Economics*, Vol. 35, 93 - 112.
- Faems, D., Janssens, M., Madhok, A., & van Looy, B. (2008). Toward an integrative perspective on alliance governance: Connecting contract design, trust dynamics, and contract application. *Academy of Management Journal*, Vol. 51, No. 6, 1053 - 1078.
- Fink, R. C., Edelman, L. F., Hatten, K. J., & James, W. L. (2006). Transaction Cost Economics, Resource Dependence Theory, and Customer-Supplier Relationships. *Industrial and Corporate Change*, Vol. 15(3), 497 - 529.
- Fiol, C., & Lyles, M. (1985). Organizational Learning. *Academy of Management Review*, Vol. 10, No. 4, 803 - 813.
- Fornell, C., & Larcker, D. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, Vol. XVIII, 39 - 50.

- Friedman, T. L. (2005). *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus, Giroux.
- Gencturk, E. F., & Aulakh, P. S. (2007). Norms- and Control-based Governance of International Manufacturer-Distributor Relational Exchanges. *Journal of International Marketing*, Vol. 15 (1): 92 - 126.
- Geyskens, I., Steenkamp, J.-B. E., & Kumar, N. (2006). Make, Buy or Ally: A Transaction Cost Theory. *Academy of Management Journal*, Vol. 49(3), 519 - 543.
- Ghoshal, S., & Moran, P. (1996). Bad for Practice: A critique of the Transaction Cost Theory. *Academy of Management Review*, Vol. 21(1), 13 - 47.
- Gonzalez, R., Gasco, J., & Llopis, J. (2010). Information Systems outsourcing: An empirical study of success factors. *Human Systems Management*, Vol. 29, 139 - 151.
- Goo, J., Huang, C. D., & Hart, P. (Aug 2008). A Path to Successful IT Outsourcing: Interaction between Service-Level Agreements and Commitment. *Decision Sciences*, Vol. 39(3), 469 - 506.
- Goo, J., Kishore, R., & Rao, H. (March 2009). The Role of Service Level Agreements in Relational Management of Information Technology Outsourcing: An Empirical Study. *MIS Quarterly*, Vol. 33(1), 119 -145.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, Vol. 17 (Special Issue), 109 - 122.
- Grant, R. M. (1997). The Knowledge-based View of the Firm: Implications for Management Practice. *Long Range Planning*, Vol. 30(3), 450 - 454.
- Griffith, D. A., Harmancioglu, N., & Droge, C. (2009). Governance decisions for the offshore outsourcing of new product development in technology intensive markets . *Journal of World Business*, Vol. 44, 217 - 224.
- Grimpe, C., & Kaiser, U. (2010). Balancing Internal and External Knowledge Acquisition: The Gains and Pains from R&D Outsourcing. *Journal of Management Studies*, Vol. 47, No. 8, 1483 - 1509.
- Grover, V., Cheon, M., & Teng, J. (1996). The effect of service quality and partnership on the outsourcing of information systems functions. *Journal of Management Information Systems*, Vol. 12, 89 - 116.

- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate Data Analysis*. New Jersey: Prentice Hall.
- Hamilton, J. (2012, May 11). *E&Y and PwC Split as Top Fortune Auditors*. Retrieved June 10, 2013, from Accounting News Report: <http://accountingnewsreport.com>
- Han, H., Lee, J., & Seo, Y. (2008). Analyzing the impact of a firm's capability on outsourcing success: A process perspective. *Information and Management*, Vol. 45, 31 - 42.
- Hansen, M. H., Hoskisson, R. E., & Barney, J. B. (2008). Competitive Advantage in Alliance Governance: Resolving Opportunism Minimization-Gain Maximization Paradox. *Managerial and Decision Economics*, Vol. 29: 191 - 208.
- Hardy, C., Phillips, N., & Lawrence, T. (2003). Resources, Knowledge and Influence: The Organizational Effects of Interorganizational Collaboration. *Journal of Management Studies*, Vol. 40, No. 2, 321 - 347.
- Haried, P., & Ramamurthy, K. (Sept 2009). Evaluating the Success in International Sourcing of Information Technology Projects: The Need for a Relational Client-Vendor Approach. *Project Management Journal*, Vol. 40(3), 56 - 71.
- Helfat, C. E., & Peteraf, M. A. (2003). The Dynamic Resource-based View: Capability Lifecycles. *Strategic Management Journal*, Vol. 24, 997-1010.
- Herath, T., & Kishore, R. (2009). Offshore Outsourcing: Risks, Challenges, and Potential Solutions. *Information Systems Management*, Vol. 26, Issue 4, 312 - 326.
- Hillman, A. J., Withers, M. C., & Collins, B. J. (Dec 2009). Resource Dependence Theory: A Review. *Journal of Management*, Vol. 35 (6): 1404 - 1427.
- Hitt, M., Bierman, L., Shimizu, K., & Kochhar, R. (2001). Direct and Moderating Effects of Human Capital on Strategy and Performance in Professional Service Firms: A Resource-based Perspective. *Academy of Management Journal*, Vol. 44, No. 1, 13 - 28.
- Hitt, M., Hoskisson, R., & Ireland, R. (1994). A Mid-Range Theory of the Interactive Effects of International and Product Diversification on Innovation and Performance. *Journal of Management*, Vol. 20, 297 - 327.
- Hoecht, A., & Trott, P. (2010). Innovation risks of strategic outsourcing. *Technovation*, 672 - 681.

- Hoegl, M., & Wagner, S. (2005). Buyer-Supplier Collaboration in Product Development Projects. *Journal of Management*, Vol. 31, No. 4, 530 - 548.
- Hoetker, G., & Mellewigt, T. (2009). Choice and Performance of Governance Mechanisms: Matching Alliance Governance to Asset Type . *Strategic Management Journal*, Vol. 30, 1025 - 1044.
- Hogan, S., Soutar, G., Mc-Coll, J., & Sweeney, J. (2011). Reconceptualizing professional service firm innovation capability: Scale development. *Industrial Marketing Management*, Vol. 40, 1264 - 1273.
- Holcomb, T. R., & Hitt, M. A. (2007). Toward a model of strategic outsourcing. *Journal of Operations Management*, Vol. 25, 464 - 481.
- Holl, J., Zinn, J., & Mor, V. (1996). The Impact of Market and Organizational Characteristics on Nursing Care Service Innovation: A Resource Dependency Perspective. *HSR: Health Services Research*, Vol. 31, No. 1, 97 - 117.
- Homburg, C., Cannon, J. P., Krohmer, H., & Kiedaisch, I. (2009). Governance of International Business Relationships: A Cross-Cultural Study of Alternative Governance Modes. *Journal of International Marketing*, Vol. 13(3), 1 - 20.
- Hortinha, P., Lages, C., & Lages, L. (2011). The tradeoff between customer and technology orientations: Impact on Innovation Capabilities and Export Performance. *Journal of International Marketing*, Vol. 19, No. 3, 36 - 58.
- Hughes, C. (2012). Introducing offshore support: establishing a knowledge management Centre for Excellence at KPMG . *Business Information Review*, Vol. 29, Issue 1, 29 - 33.
- Hult, G., Hurley, R., & Knight, G. (2004). Innovativeness: its antecedents and impact on business performance. *Industrial Marketing Management*, Vol. 33, No. 5, 429 - 438.
- Humphries, A., & Wilding, R. (2004). Collaborative Business Relationships: The Impact of Trust and C3 Behavior. *Journal of Marketing Management*, Vol. 20, Issue 9/10, 1107 - 1122.
- Hutzschenreuter, T., Lewin, A. Y., & Dresel, S. (2011). Governance modes for offshoring activities: A comparison of US and German firms. *International Business Review*, Vol. 20, 291 - 313.
- Hutzschenreuter, T., Lewin, A. Y., & Dresel, S. (2011). Time to Success in Offshoring Business Processes. *Management International Review*, Vol. 51, 65 - 92.

- Inkpen, A. (1996). Creating Knowledge through Collaboration. *California Management Review*, Vol. 39, No. 1, 123 - 140.
- Inkpen, A. C., & Dinur, A. (1998). Knowledge Management Processes and International Joint Ventures. *Organization Science*, Vol. 9(4), 454 - 468.
- Javalgi, R. G., Dixit, A., & Scherer, R. F. (2009). Outsourcing to emerging markets: Theoretical perspectives and policy implications. *Journal of International Management*, Vol. 15, 156 - 168.
- Jeffries, F. L., & Reed, R. (2000). Trust and Adaptation in Relational Contracting. *Academy of Management Review*, Vol. 25(4), 873 - 882.
- Jennex, M., & Adelakun, O. (2003). Success Factors for Offshore Information Systems Development. *Journal of Information Technology Cases and Application*, Vol. 5, Issue 3, 12 - 31.
- Jensen, P. (2009). A learning perspective on the offshoring of advanced services. *Journal of International Management*, 181 - 193.
- Jensen, P. D. (2012). A passage to India: A dual case study of activities, processes and resources in offshore outsourcing of advanced services. *Journal of World Business*, Vol. 47: 311 - 326.
- Jensen, P., & Pedersen, T. (2012). Offshoring and international competitiveness: antecedents of offshoring advanced tasks. *Journal of the Academy of Marketing Science*, Vol. 40, No. 2, 313 - 238.
- Jensen, S., Poulfelt, F., & Kraus, S. (2010). Managerial routines in professional service firms: transforming knowledge into competitive advantages. *The Service Industries Journal*, Vol. 30, No. 12, 2045 - 2062.
- Kalaignanam, K., & Varadarajan, R. (2012). Offshore outsourcing of customer relationship management: conceptual model and propositions. *Journal of Academy Marketing Science*, Vol. 40, 347 - 363.
- Kedia, B. L., & Lahiri, S. (2007). International outsourcing of services: A partnership model. *Journal of International Management*, Vol. 13, 22 - 37.
- Kedia, B. L., & Mukherjee, D. (2009). Understanding offshoring: A research framework based on disintegration, location, and externalization advantages. *Journal of World Business*, Vol. 44, 250 - 261.

- Kim, D., & Lee, R. (2010). Systems Collaboration and Strategic Collaboration: Their Impacts on Supply Chain Responsiveness and Market Performance. *Decision Sciences*, Vol. 41, No. 4, 955 - 981.
- Kim, D., Gilmore, T., & Joliff, W. (May 2012). *Annual Industry Analysis*. Washington DC: U.S. Department of Commerce, Bureau of Economic Analysis.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, Vol. 3, 383-397.
- Kotabe, M., & Murray, J. (2001). Outsourcing Service Activities. *Marketing Management*, Vol. 10(1): 40 - 45.
- Kotabe, M., Murray, J. Y., & Javalgi, R. G. (1998). Global Sourcing of Services and Market Performance: An Empirical Investigation. *Journal of International Marketing*, Vol 6: 4, 10 - 31.
- Kraaijenbrink, J., Spender, J., & Groen, A. (2010). The Resource-Based View: A Review and Assessment of Its Critiques. *Journal of Management*, Vol. 36, Issue 1, 349-372.
- Lacity, M., Khan, S., & Willcocks, L. (2009). A review of the IT outsourcing literature: Insights for practice. *Journal of Strategic Information Systems*, Vol. 18, 130 - 146.
- Lahiri, S., & Kedia, B. L. (2009). The effects of internal resources and partnership quality on firm performance: An examination of Indian BPO providers. *Journal of International Management*, Vol. 15, 209 - 224.
- Lahiri, S., & Kedia, B. L. (2011). Co-evolution of institutional and organizational factors in explaining offshore outsourcing. *International Business Review*, Vol. 20, 252 - 263.
- Lahiri, S., Kedia, B., & Mukherjee, D. (2012). The impact of management capability on the resource-performance linkage: Examining Indian outsourcing providers. *Journal of World Business*, Vol. 47, 145 - 155.
- Larsen, M., Manning, S., & Pedersen, T. (2013). Uncovering the hidden costs of offshoring: The interplay of complexity, organizational design and experience. *Strategic Management Journal*, Vol. 34, 533 - 552.
- Lawrence, B., Fournier, S., & Brunel, F. (2013). When Companies Don't Make the Ad: A Multimethod Inquiry into the Differential Effectiveness of Consumer Generated Advertising. *Journal of Advertising*, Vol. 42, No. 4, 292 - 307.

- Lazzarini, S. G., Claro, D. P., & Mesquita, L. F. (May 2008). Buyer-Supplier and Supplier-Supplier Alliances: Do They Reinforce or Undermine One Another? *Journal of Management Studies*, Vol. 45(3): 561 - 584.
- Lee, H., & Choi, B. (2003). Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination. *Journal of Management Information Systems*, Vol. 20, No. 1, 179 - 228.
- Lee, J. N. (2001). The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success. *Information and Management*, Vol. 38, No. 5, 323 - 335.
- Lee, J., & Kim, Y. (Feb 2005). Understanding Outsourcing Partnership: A Comparison of Three Theoretical Perspectives. *IEEE Transactions on Engineering Management*, Vol. 52(1): 43 - 58.
- Lee, J., Huynh, M., & Hirschheim, R. (April 2008). An integrative model of trust on IT outsourcing: Examining a bilateral perspective. *Information Systems Frontiers*, Vol. 10 (2): 145 - 163.
- Lee, J., Miranda, S., & Kim, Y. (2004). IT Outsourcing Strategies: Universalistic, Contingency, and Configurational Explanations of Success. *Information Systems Research*, Vol. 15, No. 2, 110 - 131.
- Lee, J.-N., & Kim, Y.-G. (1999). Effect of partnership quality on IS outsourcing success: Conceptual framework and empirical validation. *Journal of Management Information Systems*, Vol. 15, 29 - 61.
- Lee, Y., & Cavusgil, S. (2006). Enhancing alliance performance: The effects of contractual-based versus relational-based governance. *Journal of Business Research*, Vol. 59, No. 8, 896 - 905.
- Leonard-Barton, D. (1992). Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development. *Strategic Management Journal*, Vol. 13, 111-125.
- Levina, N., & Vaast, E. (2008). Innovating or doing as told? Status differences and overlapping boundaries in offshore collaboration. *MIS Quarterly*, Vol. 32, No. 2, 307 - 332.
- Levine, L. (Jan 21, 2011). *Offshore Outsourcing and Job Loss Among U.S. Workers: Report for Congress*. Washington DC: Congressional Research Service.

- Lewin, A. Y., & Volberda, H. W. (2011). Co-evolution of global sourcing: The need to understand the underlying mechanisms of firm-decisions to offshore. *International Business Review*, Vol. 20, 241 - 251.
- Li, J., Zhou, C., & Zajac, E. J. (2009). Control, Collaboration and Productivity in International Joint Ventures: Theory and Evidence. *Strategic Management Journal*, Vol. 30, 865 - 884.
- Li, M., & Choi, T. Y. (July 2009). Triads in Services Outsourcing: Bridge, Bridge Decay and Bridge Transfer. *Journal of Supply Chain Management*, 27 - 39.
- Li, N., Boulding, W., & Staelin, R. (2010). General alliance experience, uncertainty, and marketing alliance governance mode choice. *Journal of the Academy of Marketing Science*, Vol. 38, 141 - 158.
- Liao, S., Fei, W., & Chen, C. (2007). Knowledge sharing, absorptive capacity, and innovative capability: an empirical study of Taiwan's knowledge intensive industries. *Journal of Information Science*, Vol. 33, No. 3, 340 - 359.
- Lu, Y., & Ramamurthy, K. (2011). Understanding the link between information technology capability and organizational agility: an empirical examination. *MIS Quarterly*, Vol. 35, No. 4, 931 - 954.
- Mackenzie, I., & DeCusatis, C. (2013). Sustaining innovation when outsourcing components in multi-technology, multi-component systems. *Innovation: Management, Policy & Practice*, Vol. 15, No. 1, 2 - 16.
- Malhotra, N., & Morris, T. (Sept 2009). Heterogeneity in Professional Service Firms. *Journal of Management Studies*, Vol. 46(6): 895 - 922.
- Malhotra, N., Agarwal, J., & Ulgado, F. (2003). Internationalization and entry modes: A multitheoretical framework and research propositions. *Journal of International Marketing*, 1-31.
- Mani, D., Barua, A., & Whinston, A. (2010). An empirical analysis of the impact of information capabilities design on business process outsourcing performance. *MIS Quarterly*, Vol. 34, No. 1, 39 - 62.
- 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*, Vol 51, 381 - 406.
- Mao, J.-Y., Lee, J.-N., & Deng, C.-P. (2008). Vendors' perspectives on trust and control in offshore information systems. *Information & Management*, Vol. 45, 482 - 492.

- Martin, J., & Eisenhardt, K. (2010). Rewiring: Cross-business-unit collaborations in multibusiness organizations. *Academy of Management Journal*, Vol. 53, No. 2, 265 - 301.
- Martinez-Noya, A., & Garcia-Canal, G. (2011). Technological capabilities and the decision to outsource/outsource offshore R&D services. *International Business Review*, Vol. 20, 264 - 277.
- Martinez-Noya, A., Garcia-Canal, E., & Guillen, M. (2013). R&D Outsourcing and the Effectiveness of Intangible Investments: Is Proprietary Core Knowledge Walking Out the Door? *Journal of Management Studies*, Vol. 50, Issue 1, 67 - 91.
- Martinez-Noya, A., Garcia-Canal, E., & Guillen, M. F. (2012). International R&D service outsourcing by technology intensive firms: Whether and where? *Journal of International Management*, Vol. 18, 18 - 37.
- McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management*, Vol. 27, 45 - 63.
- Medcof, J. (2001). Resource-based Strategy and Managerial Power in Networks of Internationally Dispersed Technology Units. *Strategic Management Journal*, Vol. 22, 999 - 1012.
- Miller, S. (2007). Collaboration is the key to effective outsourcing. *HR Magazine*, Vol. 52, 58 - 61.
- Mitchell, F., Nielsen, L., Norreklit, H., & Norreklit, L. (2013). Scoring strategic performance: a pragmatic constructivist approach to strategic performance measurement. *Journal of Management and Governance*, Vol. 17, 5 - 34.
- Moeller, S. (2010). Characteristics of services - a new approach uncovers their value. *Journal of Services Marketing*, Vol. 24, No. 5, 359 - 368.
- Mohr, J., & Spekman, R. (1994). Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques. *Strategic Management Journal*, Vol. 15, 135 - 152.
- Molina-Morales, F. X., Martinez-Fernandez, M. T., & Torlo, V. (2011). The Dark Side of Trust: The Benefits, Costs, and Optimal Levels of Trust from Innovation Performance. *Long Range Planning*, Vol. 44, 118 - 133.

- Monteiro, H., Wilson, J., & Beyer, D. (2013). Exploration of Predictors of Teaching Effectiveness: The Professor's Perspective. *Current Psychology*, Vol. 32, Issue 4, 329 - 337.
- Morgan, R., & Berthon, P. (2008). Market Orientation, Generative Learning, Innovation Strategy and Business Performance Interrelationships. *Journal of Management Studies*, Vol. 45, No. 8, 1329 - 1353.
- Morgan, R., & Hunt, S. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, Vol. 58, 20 - 38.
- Mudambi, R., & Venzin, M. (2010). The Strategic Nexus of Offshoring and Outsourcing Decisions. *Journal of Management Studies*, Vol. 47, Issue 8, 1510 - 1533.
- Mudambi, S. M., & Tallman, S. (Dec 2010). Make, Buy or Ally? Theoretical Perspectives on Knowledge Process Outsourcing through Alliances. *Journal of Management Studies*, Vol. 47(8): 1434 - 1456.
- Murray, J. Y. (2001). Strategic Alliance-Based Global Sourcing Strategy for Competitive Advantage: A Conceptual Framework and Research Propositions. *Journal of International Marketing*, Vol. 9(4): 30 - 58.
- Nasution, H., Mavondo, F., Matanda, M., & Ndubisi, N. (2011). Entrepreneurship: Its relationship with market orientation and learning orientation and as antecedents to innovation and customer value. *Industrial Marketing Management*, Vol. 40, 336 - 345.
- Neeru, S., & Patterson, P. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer professional services. *Journal of Services Marketing*, Vol. 13, Issue 2, 151 - 170.
- Nicholson, B., Jones, J., & Espenlaub, S. (2006). Transaction costs and control of outsourced accounting: Case evidence from India. *Management Accounting Research*, Vol. 17, 238 - 258.
- Nickerson, & Zenger. (2004). A knowledge-based theory of the firm: The problem-solving perspective. *Organization Science*, Vol. 15, No. 6, 617 - 632.
- Nielsen, B., & Nielsen, S. (2009). Learning and Innovation in International Strategic Alliances: An Empirical Test of the Role of Trust and Tacitness. *Journal of Management Studies*, Vol. 46 (6): 1031 - 1056.

- Nijssen, E., Hillebrand, B., de Jong, P., & Kemp, G. (2012). Strategic Value Assessment and Explorative Learning Opportunities with Customers. *Journal of Product Innovation Management*, Vol. 29, 91 - 102.
- Nonaka, I., Toyama, R., & Nagata, A. (2000). A Firm as a Knowledge-creating Entity: A New Perspective on the Theory of the Firm. *Industrial and Corporate Change*, Vol. 9, Issue 1, 1-20.
- Noorderhaven, N. (1994). Transaction cost analysis and the explanation of hybrid vertical inter-firm relations. *Review of Political Economy*, Vol. 6, No. 1, 19-36.
- Nooteboom, B. (2004). Governance and Competence: How can they be combined? *Cambridge Journal of Economics*, Vol. 28, 505 - 525.
- Nunnally, J. (1978). *Psychometric Theory*. New York: McGraw-Hill.
- Oke, A., & Kach, A. (2012). Linking sourcing and collaborative strategies to financial performance: The role of operational innovation. *Journal of Purchasing & Supply Management*, Vol. 18, 46 - 59.
- Olander, H., Laukkanen, P., Blomqvist, K., & Ritala, P. (2010). The dynamics of relational and contractual governance mechanisms in knowledge sharing of collaborative R&D projects. *Knowledge & Process Management*, Vol. 17 (4): 188 - 204.
- O'Sullivan, K. (March 2013). Practiced, But Not Perfect. *CFO*, 52 - 53.
- Ouyang, Y. (2010). A Relationship between the Financial Consultants Service Quality and Customer Trust after Financial Tsunami. *International Research Journal of Finance and Economics*, Vol. 36, 75 - 86.
- Palvia, P. C., King, R. C., Xia, W., & Palvia, S. C. (May 2010). Capability, Quality, and Performance of Offshore IS Vendors: A Theoretical Framework and Empirical Investigation. *Decision Sciences*, Vol. 41(2): 231 - 270.
- Panayides, P. (2007). Effects of Organizational Learning in third-party logistics. *Journal of Business Logistics*, Vol. 28, No. 2, 133 - 158.
- Park, J., Lee, J., Lee, H., & Truex, D. (2012). Exploring the impact of communication effectiveness on service quality, trust, and relationship commitment. *International Journal of Information Management*, Vol. 32, 459 - 468.

- Park, J., Lee, S., & Morgan, R. (2011). A negative side of outsourcing marketing functions and market based learning process. *Journal of Strategic Marketing*, Vol. 19, Issue 5, 471 - 486.
- Pavlos, D., Lioukas, S., Ibeh, K. I., & Wheeler, C. (2009). Governance Mechanisms of Small and Medium Enterprise International Partner Management. *British Journal of Management*, Vol. 21, 754 - 771.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. New York.
- Perez-Nordtvedt, L., Kedia, B., Datta, D., & Rasheed, A. (2008). Effectiveness and efficiency of cross-border knowledge transfer: an empirical examination. *Journal of Management Studies*, Vol. 45, 699 - 729.
- Pfeffer, J., & Salancik, G. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York, New York: Harper and Row.
- Phelps, C., Heidl, R., & Wadhwa, A. (2012). Knowledge, Networks, and Knowledge Networks: A Review and Research Agenda. *Journal of Management*, Vol. 38, No. 4, 1115 - 1166.
- Ping, Z., & Wing, C. W. (2011). Corporate Governance: A Summary Review on Different Theory Approaches. *International Research Journal of Finance and Economics*, Issue 68, 7 - 13.
- Podsakoff, P., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, Vol. 88, No. 5, 879 - 903.
- Poppo, L., & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, Vol. 23, No. 8, 707 - 727.
- Poppo, L., Zhou, K., & Zenger, T. R. (2008). Examining the Conditional Limits of Relational Governance: Specialized Assets, Performance Ambiguity, and Long-Standing Ties. *Journal of Management Studies*, Vol. 45 (7): 1195 - 1216.
- Powell, W., Koput, K., & Smith-Doerr, L. (1996). Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology. *Administrative Science Quarterly*, Vol. 41, 116 - 145.
- Prahalad, C. K. (1983). Developing Strategic Capability: An Agenda for Top Management. *Human Resource Management*, Vol. 22(3): 237-254.

- Prajogo, D., McDermott, C., & Jayaram, J. (2014). The role of technological intensity in services on the capability to performance relationships - An examination in the Australian Context. *Journal of Engineering & Technology Management*, Vol. 31, 58 - 72.
- Priem, R., & Butler, J. (2001). Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review*, Vol. 26, No. 1, 22 - 40.
- Quinn, J. (1999). Strategic Outsourcing: Leveraging knowledge capabilities. *Sloan Management Review*, Vol. 40, Issue 4, 9 - 21.
- Raassens, N., Wuyts, S., & Geyskens, I. (2012). The Market Valuation of Outsourcing New Product Development. *Journal of Marketing Research*, Vol. XLIX, 682 - 695.
- Rai, A., Keil, M., Hornyak, R., & Wullenweber, K. (2012). Hybrid Relational-Contractual Governance for Business Process Outsourcing. *Journal of Management Information Systems*, Vol. 29, No. 2, 213 - 256.
- Rai, A., Maruping, L. M., & Venkatesh, V. (Sept 2009). Offshore Information Systems Project Success: The Role of Social Embeddedness and Cultural Characteristics. *MIS Quarterly*, Vol. 33(3): 617 - 641.
- Ramanathan, U., & Gunasekaran, A. (2014). Supply chain collaboration: impact on success in long-term partnerships. *International Journal of Production Economics*, Vol. 147, 252 - 259.
- Reihlen, M., & Apel, B. (2007). Internationalization of professional service firms as learning - a constructivist approach. *International Journal of Service Industry Management*, Vol. 18, No. 2, 140 - 151.
- Ren, S. J.-F., Ngai, E. W., & Cho, V. (Jan 2010). Examining the determinants of outsourcing partnership quality in Chinese small and medium sized enterprises. *International Journal of Production Research*, Vol. 48(2): 453 - 475.
- Richey, R., Adams, F., & Dalela, V. (2012). Technology and Flexibility: Enablers of Collaboration and Time-based Logistic Quality. *Journal of Business Logistics*, Vol. 33, 34 - 49.
- Richey, R., Tokman, M., & Dalela, V. (2010). Examining collaborative supply chain service technologies: a study of intensity, relationships and resources. *Journal of Academy of Marketing Science*, Vol. 38, No. 1, 71 - 89.

- Robichau, R. W. (2011). The Mosaic of Governance: Creating a Picture with Definitions, Theories, and Debates. *Policy Studies Journal*, Vol. 39(S1): 113 - 131.
- Roza, M., Van den Bosch, F. A., & Volberda, H. W. (2011). Offshoring strategy: Motives, functions, locations, and governance modes of small, medium sized and large firms. *International Business Review*, Vol. 20, 314 - 323.
- Sanders, N. R., Locke, A., Moore, C. B., & Autry, C. W. (Fall 2007). A Multidimensional Framework for Understanding Outsourcing Arrangements. *Journal of Supply Chain Management*, 3 - 15.
- Sanders, N., & Premus, R. (2005). Modeling the relationship between firm IT Capability, Collaboration, and Performance. *Journal of Business Logistics*, Vol. 26, No. 1, 1 - 23.
- Schneider, C., Bremen, P., Schonsleben, P., & Alard, R. (2013). Transaction cost economics in global sourcing: Assessing regional differences and implications for performance. *International Journal of Production Economics*, Vol. 141, 243 - 254.
- Schwarz, C. (2014). Toward an understanding of the nature and conceptualization of outsourcing success. *Information & Management*, Vol. 51, No. 1, 152 - 164.
- Seggie, S. H. (2012). Transaction Cost Economics in International Marketing: A Review and Suggestions for the Future. *Journal of International Marketing*, Vol. 20, No. 2, 49 - 71.
- Sharma, N., & Patterson, P. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer professional services. *Journal of Services Marketing*, Vol. 13, No. 2, 151 - 170.
- Simatupang, T., & Sridharan, R. (2005). An integrative framework for supply chain collaboration. *International Journal of Logistics Management*, Vol. 16, No. 2, 257 - 274.
- Simonin, B. (2004). An empirical investigation of the process of knowledge transfer in international strategic alliances. *Journal of International Business Studies*, Vol. 35, No. 5, 407 - 427.
- Sinkula, J., Baker, W., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge and behavior. *Journal of the Academy of Marketing Science*, Vol. 25, No. 4, 305 -318.

- Song, J., & Shin, J. (2008). The paradox of technological capabilities: a study of knowledge sourcing from host countries of overseas R&D operations. *Journal of International Business Studies*, Vol. 39, 291 - 303.
- Spender, J., & Grant, R. M. (1996). Knowledge and the Firm: Overview. *Strategic Management Journal*, Vol. 17, 5-9.
- Srikanth, K., & Puranam, P. (2011). Integrating Distributed Work: Comparing Task Design, Communication, and Tacit Coordination Mechanisms. *Strategic Management Journal*, Vol. 32, 849 - 875.
- Stack, M., & Downing, R. (2005). Another look at offshoring: Which jobs are at risk and why? *Business Horizons*, Vol. 48, Issue 6, 513 - 523.
- Storey, C., & Hughes, M. (2013). The relative impact of culture, strategic orientation and capability on new service development performance. *European Journal of Marketing*, Vol. 47, No. 5/6, 833 - 856.
- Strange, R. (2011). The outsourcing of primary activities: theoretical analysis and propositions. *Journal of Management & Governance*, Vol. 15, 249 - 269.
- Stringfellow, A., Teagarden, M. B., & Nie, W. (2008). Invisible costs in offshoring services work. *Journal of Operations Management*, Vol. 26, 164 - 179.
- Stumpf, S., Doh, J., & Clark, K. (2002). Professional Services Firms in Transition: Challenges and Opportunities for Improving Performance. *Organizational Dynamics*, Vol. 31 (3): 259 - 279.
- Suddaby, R., Cooper, D. J., & Greenwood, R. (2007). Transnational regulation of professional services: Governance dynamics of field level organizational change. *Accounting, Organizations, and Society*, Vol. 32, 333 - 362.
- Swar, B., & Moon, J. O. (2012). Determinants of relationship quality for IS/IT outsourcing success in public sector. *Information Systems Frontier*, Vol. 14, 457 - 475.
- Tiwana, A., & Bush, A. A. (Summer 2007). A Comparison of Transaction Cost, Agency, and Knowledge-Based Predictors of IT Outsourcing Decisions: A U.S.-Japan Cross-Cultural Field Study. *Journal of Management Information Systems*, Vol. 24(1): 259 - 300.
- Tsai, W., Li, S., Tsai, M., & Lin, C. (2012). Harmonizing firm knowledge and strategies with organizational capabilities. *Journal of Computer Information Systems*, Vol. 53, Issue 1, 23 - 32.

- Tsang, E. W. (2000). Transaction cost and resource-based explanations of joint ventures: a comparison and synthesis. *Organizational Studies*, Vol. 21, 215 - 242.
- Van der Aa, W., & Elfring, T. (2002). Realizing innovation in services. *Scandinavian Journal of Management*, Vol. 18, No. 2, 155 - 172.
- Varadarajan, R. (2009). Outsourcing: Think more expansively. *Journal of Business Research*, Vol. 62, 1165 - 1172.
- Vijayasarathy, L. (2010). An investigation of moderators of the link between technology use in the supply chain and supply chain performance. *Information & Management*, Vol. 47, 364 - 371.
- Vivek, S., Richey, G., & Dalela, V. (2009). A longitudinal examination of partnership governance in offshoring: A moving target. *Journal of World Business*, Vol. 44, 16-30.
- Von Nordenflycht, A. (2010). What is a professional service firm? Toward a theory and taxonomy of knowledge-intensive firms. *Academy of Management Review*, Vol. 35(1): 155 - 174.
- Wagner, S., Eggert, A., & Lindemann, E. (2010). Creating and Appropriating Value in Collaborative Relationships. *Journal of Business Research*, Vol. 63, No. 8, 840 - 848.
- Wang, C., Hult, T., Ketchen, D., & Ahmed, P. (2009). Knowledge management orientation, market orientation, and firm performance: an integration and empirical examination. *Journal of Strategic Marketing*, Vol. 17, No. 2, 99 - 122.
- Wang, E. T., & Wei, H.-L. (Nov 2007). Interorganizational Governance Value Creation: Coordinating for Information Visibility and Flexibility in Supply Chains. *Decision Sciences*, Vol. 38(4): 647 - 674.
- Wang, L., Yeung, J., & Zhang, M. (Nov 2011). The impact of trust and contract on innovation performance: the moderating role of environmental uncertainty. *International Journal of Production Economics*, Vol. 134, 114 - 122.
- Wang, Q., Bradford, K., Xu, J., & Weitz, B. (2008). Creativity in buyer-seller relationships: The role of governance. *International Journal of Research in Marketing*, Vol. 25, 109 - 118.
- Webb, L., & Laborde, J. (2005). Crafting a successful outsourcing vendor/client relationship. *Business Process Management Journal*, Vol. 11(5): 437 - 443.

- Weigelt, C. (2009). The Impact of Outsourcing New Technologies on integrative capabilities and performance. *Strategic Management Journal*, Vol. 30, 595 - 616.
- Welter, C., Bosse, D. A., & Alvarez, S. A. (2013). The Interaction Between Managerial and Technological Capabilities as a Determinant of Company Performance: An Empirical Study of Biotech Firms. *International Journal of Management*, Vol. 30, No. 1, Part 2, 272 - 284.
- Wernerfelt, B. (1984). A Resource-based View of the Firm. *Strategic Management Journal*, Vol. 5, No. 2, 171 - 180.
- Whitaker, J., Mithas, S., & Krishan, M. (Winter 2010-2011). Organizational Learning and Capabilities for Onshore and Offshore Business Process Outsourcing. *Journal of Management Information Systems*, Vol. 27, No. 3, 11 - 42.
- Whitley, E. A., & Willcocks, L. (Sep 2011). Achieving Step-Change in Outsourcing Maturity: Toward Collaborative Innovation. *MIS Quarterly Executive*, Vol. 10(3): 95 - 107.
- Willcocks, L., Oshri, I., Kotlarsky, J., & Rottman, J. (Nov 2011). Outsourcing and Offshoring Engineering Projects: Understanding the Value, Sourcing Models, and Coordination Practices. *IEEE Transactions on Engineering Management*, Vol. 58(4): 706 - 716.
- Williamson, O. E. (1981). The economics of organization: the transaction cost approach. *American Journal of Psychology*, Vol. 87, 548 - 577.
- Williamson, O. E. (1991). Comparative Economic Organization: The Analysis of Discrete Structural Alternatives. *Administrative Science Quarterly*, Vol. 36, No. 2, 269 - 296.
- Williamson, O. E. (2002). The Theory of the Firm as Governance Structure: From Choice to Contract. *Journal of Economic Perspectives*, Vol. 16, No. 3, 171 - 195.
- Williamson, O. E. (2008). Outsourcing: Transaction Cost Economics and Supply Chain Management. *Journal of Supply Chain Management*, Vol. 44, No. 2, 5 - 16.
- Williamson, O. E. (Oct 1979). Transaction-Cost Economics: The Governance of Contractual Relations. *Journal of Law & Economics*, Vol. 22 (2): 233 - 261.
- Winter, S. (2000). The Satisficing Principle in Capability Learning. *Strategic Management Journal*, Vol. 21, No. 10/11, 981 - 996.

- Wool, C. (2013). Clinician Confidence and Comfort in Providing Perinatal Palliative Care. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, Vol. 42, Issue 1, 48 - 58.
- Xia, J. (2011). Mutual dependence, partner substitutability, and repeated partnership: The survival of cross border alliances. *Strategic Management Journal*, Vol. 32, 229 - 253.
- Yalcinkaya, G., Calantone, R., & Griffith, D. (2007). An examination of exploration and exploitation capabilities: Implications for product innovations and market performance . *Journal of International Marketing*, Vol. 15, No. 4, 63 - 93.
- Youngdahl, W., & Ramaswamy, K. (2008). Offshoring knowledge and service work: A conceptual model and research agenda . *Journal of Operations Management*, Vol. 26, 212 - 221.
- Yu, Y., Dong, X., Shen, K., Khalifa, M., & Hao, J. (2013). Strategies, technologies, and organizational learning for developing organizational innovativeness in emerging technologies. *Journal of Business Research*, Vol. 66, 2507 - 2514.
- Zahra, S., Neubaum, D., & Larraneta, B. (2007). Knowledge sharing and technological capabilities: the moderating role of family involvement. *Journal of Business Research*, Vol. 60, 1070 - 1079.
- Zeithaml, V., Berry, L., & Parasuraman, A. (1988). Communication and Control Processes in the Delivery of Service Quality. *Journal of Marketing*, Vol. 52, 35 - 48.
- Zhou, K. Z., & Wu, F. (May 2010). Technological capability, strategic flexibility, and product innovation. *Strategic Management Journal*, Vol. 31, 547 - 561.
- Zhou, K., & Li, C. (2012). How knowledge affects radical innovation: Knowledge base, market knowledge acquisition, and internal knowledge sharing. *Strategic Management Journal*, Vol. 33, 1090 - 1102.
- Zhou, L., Wu, A., & Barnes, B. (2012). The effects of early internationalization on performance outcomes in young international new ventures: The mediating role of marketing capabilities. *Journal of International Marketing*, Vol. 20, No. 4, 25 - 43.

Appendix A: SURVEY INSTRUMENT

Thank you for opening the survey link. My name is Renee Castrigano, a Doctoral Candidate at Cleveland State University, Monte Ahuja College of Business. I am conducting research to complete my doctoral dissertation and am requesting your assistance. I would greatly appreciate 5-10 minutes of your time in completing the following survey. My dissertation examines the relationship between a U.S.-based Professional Service Firms and an Offshore Service Provider contracted with or partnered with to complete outsourced workloads. The research tests the relational governance issues of trust, commitment and communication and their impact on the firm-level capabilities such as technological capabilities or service quality capabilities. I have narrowed the scope of professional service firms to knowledge-intensive services such as accounting, engineering, and information technology. The risks of participating in the survey are minimal; the greatest of which is the short time required to complete the survey. The benefits of the survey could assist professional service firms in the selection process in choosing an offshore service provider. I am willing to make my results available to you at the conclusion of my dissertation process, if you are interested. Your participation in the survey is voluntary. You may exit the survey at any time without penalty. Your responses will receive a unique reference identifier from the survey system so that all responses will remain anonymous. In addition, all data will be aggregated when completing the dissertation process therefore individual responses will not be disclosed and will remain confidential. If you have any questions, you are welcome to contact me at 216-687-3791 or r.castrigano@csuohio.edu. If you have any questions about your rights as a participant in the survey, you may contact the Cleveland State University Institutional Review Board at 216-687-3630. Thank you for participating in my survey. You are helping me to achieve my career goal.

- ☐ I agree to participate in the survey. Please enter the date of completing the survey. (1)
- ☐ I chose to not participate in the survey. (2)

If I chose to not participate ... Is Selected, Then Skip To End of Block

Please describe your experience with outsourcing to an offshore firm.

- ☐ Currently engaged in an offshore outsourcing engagement (1)
- ☐ Not currently engaged in an offshore outsourcing engagement BUT have had experience in the past 5 years (2)
- ☐ Not currently engaged in an offshore outsourcing engagement BUT have had experience greater than 5 years ago (3)
- ☐ Never offshore outsource (4)

If Never offshore outsource Is Selected, Then Skip To End of Block

What type of relationship is your firm engaged in with the offshore provider of services?

- ☐ Short-term project specific contract, sometimes referred to as business process outsourcing, or a tactical engagement (1)
- ☐ Long term project specific contract, sometimes referred to as knowledge process outsourcing or a strategic engagement (2)
- ☐ Long term partnership with shared control and shared risks such as a strategic alliance or joint venture or a transformational engagement (3)
- ☐ Our firm engages in multiple offshore outsourcing engagements types. (4)

If Our firm engages in multiple offshore outsourcing engagements types. (4) Is Selected, Then Skip To As you consider the offshore outsourcing engagement...If Long term project specific ... Is Selected, Then Skip To What is the nature of the offshore outsourcing engagement...If Short-term project specific... Is Selected, Then Skip To What is the nature of the offshore outsourcing engagement...If Long term partnership with ... Is Selected, Then Skip To What is the nature of the offshore outsourcing engagement...

As you consider the offshore outsourcing engagements of your firm, please approximate the percentage of each type of engagement.

_____ Short-term project specific contract, sometimes referred to as business process outsourcing, or a tactical engagement (1)

_____ Long term project specific contract, sometimes referred to as knowledge process outsourcing or a strategic engagement (2)

_____ Long term partnership with shared control and shared risks such as a strategic alliance or joint venture or a transformational engagement (3)

What is the nature of the offshore outsourced service project?

- ☐ Audit (1)
- ☐ Tax Preparation (2)
- ☐ Management Consulting (3)
- ☐ Engineering (4)
- ☐ Architecture (5)
- ☐ Computer and Information Science (6)
- ☐ Banking (7)
- ☐ Other Please Specify (8) _____

Please answer the following questions on your relationship with the offshore service provider ranging from strongly disagree to strongly agree. If you have more than one relationship, please consider the most significant relationship.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Some what Agree (5)	Agree (6)	Strongly Agree (7)
In our relationship, our offshore service provider makes beneficial decisions for us under most circumstances. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In our relationship, our offshore service provider is willing to provide assistance to us without expectations. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In our relationship, our offshore service provider is sincere at all times. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider is honest when they try to resolve differences of opinion with us. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Both parties are willing to commit resources to sustain the relationship. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When our firm makes a request, the offshore service provider is willing to make further investment to support our needs. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even if they could, the offshore service provider would not drop our firm as a client because they like the benefits of being associated with us. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We want to remain associated with this service provider because we genuinely enjoy our relationship with them. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The continuation of the relationship with our offshore service provider is important to us. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider expects the	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

relationship to continue for a long time. (10)							
Our firm and the offshore service provider mutually share information. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our firm and offshore service provider share business knowledge including core business processes. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information provided by our firm helps our offshore service provider execute the requested business tasks. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our firm and our offshore service provider share information regarding the business environment and technical changes that affect our businesses. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider communicates in a timely manner. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider communication is accurate. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider communication is complete. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider communication is credible. (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select "Somewhat Disagree" in order to continue (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer the following questions regarding your opinion of the offshore service provider in the range of strongly disagree to strongly agree. If you use multiple firms, please consider your largest relationship.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
Our offshore service provider understand the business objectives and processes of our firm. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider shares the benefits and risks of our business (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider has a compatible culture and policies as in our business (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider fulfills agreements and promises. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services offered by the offshore service provider offer unique benefits, not offered by their competitors (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The services offered by our offshore service provider are radically different from the competitor (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The services offered by our offshore service provider are higher quality than the competitor (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider presents our firm with unique solutions that our firm has not considered (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider provides innovative ideas to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

us (9)							
Our offshore service provider provides us with services that offer unique benefits to us. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The services offered by the offshore service provider are highly innovative (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider is an industry leader. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider keeps current with technological innovations (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider make decisions that are beneficial to our business under most circumstances. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider is capable of and experiments with new technology as necessary (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The relationship between our firm and the offshore service provider is supportive of trying new uses of technology (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider seeks new ways of enhancing the effectiveness of technology (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider agrees that the ability to learn is the key to our competitive advantage (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider has the firm-level value that	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

learning is the key to improving services (19)							
Both firms believe that employee learning is an investment, not an expense (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning is a key commodity necessary to guarantee organizational survival (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our offshore service provider firm-level culture is one that does not make employee learning a top priority (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider completes the project within the scheduled time frame (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider completes the project within budget (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider provides error free services to us, (25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider shows a sincere interest in solving problems (26)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider gives prompt service (27)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider keeps our data and our transactions safe and confidential (28)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The offshore service provider offers personalized attention to our firm. (29)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please select "Agree" in order to continue (30)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
---	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

Please answer the following questions regarding the results of the offshore outsourced engagement in the range of strongly disagree to strongly agree.

	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)
Our firm has been able to re-focus on our core business services (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have increased our control over expenses (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have increased our access to key knowledge (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are satisfied with the overall benefits from outsourcing (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have increased our access to highly skilled personnel (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Taking everything into consideration, how would your firm rate the overall success of the offshore outsourcing project?

- ☐ Highly Successful (1)
- ☐ Successful (2)
- ☐ Neutral, Neither Successful nor Unsuccessful (3)
- ☐ Unsuccessful (4)
- ☐ Highly Unsuccessful (5)

How satisfied are you with the decision to offshore outsource to the chosen service provider?

- ☐ Very Dissatisfied (1)
- ☐ Dissatisfied (2)
- ☐ Neutral (3)
- ☐ Satisfied (4)
- ☐ Very Satisfied (5)

Taking everything into consideration, how do you feel about what you received from the chosen service provider?

- ☐ Very Dissatisfied (1)
- ☐ Dissatisfied (2)
- ☐ Neutral (3)
- ☐ Satisfied (4)
- ☐ Very Satisfied (5)

How long has your firm been engaged in offshore outsourcing of services?

- ☐ Less than a year (1)
- ☐ 1 - 3 years (2)
- ☐ 4 - 6 years (3)
- ☐ 7 - 10 years (4)
- ☐ greater than 10 years (5)

In what countries have you engaged in an offshore outsourcing engagement? You may select more than one answer.

- ☐ India (1)
- ☐ China (2)
- ☐ Philippines (3)
- ☐ Southeast Asian country: Please Specify (4) _____
- ☐ Eastern European country: Please Specify (5) _____
- ☐ Latin America or South American country: Please Specify (6) _____
- ☐ Other: Please Specify (7) _____

How many employees does your firm employ?

- ☐ 20 - 200 (1)
- ☐ 201 - 500 (2)
- ☐ 501 - 1,500 (3)
- ☐ 1,501 - 5,000 (4)
- ☐ > 5,001 (5)