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An Empirical Examination of the Factors Affecting the Internationalization of Professional Service Smes: The Case of India

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**AN EMPIRICAL EXAMINATION OF THE FACTORS AFFECTING THE
INTERNATIONALIZATION OF PROFESSIONAL SERVICE SMEs:
THE CASE OF INDIA**

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DEDICATION

To my husband, Brian, and my children, David and Brianne,
for their love and continued support.

To my parents, Samuel and Grace Petrill,
for their encouragement.

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With the deepest gratitude I wish to thank Dr. Rajshekhar Javalgi, for his patience, encouragement, and guidance through this process of fulfilling my dream. Due to his support and guidance, this dissertation process has been a wonderful journey of discovery and self-enlightenment.

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**AN EMPIRICAL EXAMINATION OF THE FACTORS AFFECTING THE
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SERVICE SMEs: THE CASE OF INDIA**

LORI PETRILL RADULOVICH

ABSTRACT

This dissertation examines the factors contributing to the internationalization and performance of professional service SMEs in emerging markets. Specifically, this research documents the relationships among a professional service SME's entrepreneurial orientation, human capital, the degree of internationalization, service innovation, and financial performance.

Entrepreneurship literature has recently been extended to the international environment, confirming a positive influence on firm internationalization. Research that examines human capital is limited, yet has potential to contribute to service research. Separately, innovation has been examined from several research disciplines, yet has not been integrated in a model with an entrepreneurial orientation, firm internationalization, and human capital. This dissertation research integrates literature from multiple disciplines to create and test an integrative framework of professional service SME internationalization and performance.

The largest contribution of this research is to the fields of entrepreneurship and international business, resulting from confirmation of the positive effect of an entrepreneurial orientation on SME internationalization. However, it is also the researcher's intent to recognize the unique contribution of human capital to the profitable internationalization and performance of knowledge-intensive professional services firms.

A multidisciplinary integrative service performance framework that extends international business, entrepreneurship, marketing, management, and strategy literature is supported by a sample of international professional service SMEs in India. Research conclusions and managerial implications are also provided.

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CHAPTER I

INTRODUCTION

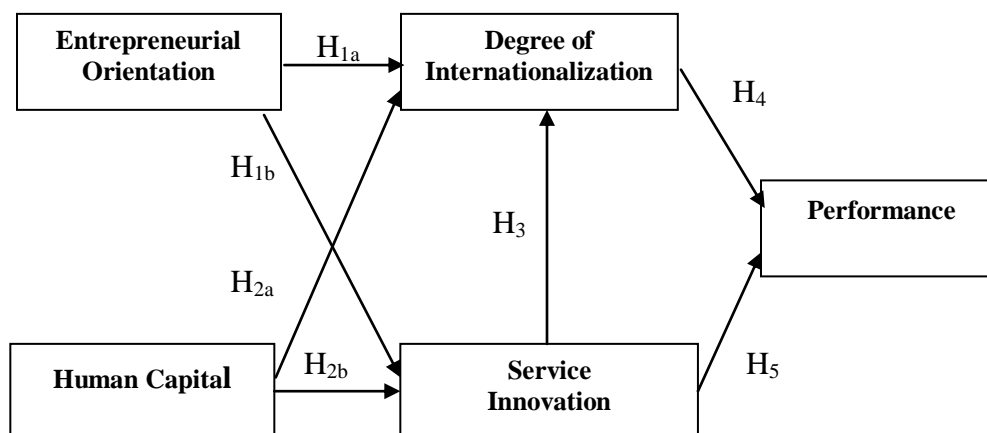
Research which examines new ventures, “born-global” firms, small and medium-sized enterprises (SMEs), and multinationals enterprises (MNEs) has provided an array of findings regarding the drivers of internationalization and the factors that contribute to the success and performance of firms in international markets. Management literature has examined top management team (TMT) characteristics; and entrepreneurship literature has examined the innovativeness, risk-taking, and competitive aggressiveness of individuals and organizations as the first to act upon opportunities given various conditions of market risk. Concurrently, innovation research, encompassing new product development (NPD) and to a lesser degree, new service development (NSD), has shed light on the adaptation of a firm’s products/services to enhance market share and create performance advantages.

With regard to the effects of firm internationalization on performance, empirical results are mixed (Hitt, Hoskisson, & Kim, 1997). Researchers have a limited understanding of the performance benefits of intangible resources, such as human capital in professional services firms. Proponents of the resource-based view (RBV) posit that superior intangible resources provide sustainable competitive advantages and superior

performance. However, the means by which advantages are created in international professional services involves an understanding of firm resources and differences in service needs across borders.

Many questions remained unanswered. This dissertation addresses this need by proposing an integrative framework that incorporates advancements gained from multiple research streams. This research then tests a model of professional service internationalization and performance among a sample of SMEs in India, an emerging market contributor to international services trade. Based upon a review of literature among several disciplines, the following integrative framework of professional service performance has been developed to describe SME internationalization (Figure 1).

Figure 1
A Framework of
Professional Service Firm Internationalization and Performance



The purpose of this study and anticipated contributions to research provided by empirically testing the above-hypothesized model will now be reviewed.

1.1 *Purpose of Research*

The dissertation addresses unexplored gaps in literature among the disciplines of marketing, international business, strategy, management, and entrepreneurship by examining the factors contributing to the internationalization and financial performance of professional service SMEs. Specifically, this research extends the above literature streams by empirically testing the relationships among entrepreneurial orientation, human capital, service innovation, firm internationalization, and performance of professional services SMEs.

Recently, scholars have looked to entrepreneurship research to gain an understanding of firm internationalization (McDougall & Oviatt, 2000). Evidence of “born-global” firms indicates the need for multiple approaches to explain internationalization (Knight, 2000). Literature has shown that entrepreneurial behavior positively affects performance in many contexts and has potential to offer contributions to internationalization theory (Oviatt & McDougall, 2005; Zahra, Korri, & JiFeng, 2005); however, the lack of research examining entrepreneurship in emerging economies is remarkably stark, with India being the focus of only one study over the period 1990 through 2006 (Bruton, Ahlstrom, & Obloj, 2008). Research which examines human capital is limited, yet also has strong potential to contribute to service research (Hitt, Bierman, Uhlenbruck, & Shimizu, 2003, 2006).

In response to the above gaps, empirical findings of this study contribute to the emerging and promising area of research that examines the effect of an entrepreneurial

orientation on firm internationalization to achieve cross-disciplinary academic advancements (Mathews & Zander, 2007). Specifically, this dissertation research seeks to examine the antecedent factors affecting the internationalization and performance of small and medium-sized enterprises (SMEs) in the context of an emerging economy.

Researchers have called for greater clarity of the meaning and application of entrepreneurship in international contexts (McDougall & Oviatt, 2000) to: (1) examine the effects of entrepreneurship in other cultural environments to better understand the domain of entrepreneurial behavior, and (2) gain an understanding of factors influencing firm internationalization in light of empirical evidence that challenges the traditional model of firm internationalization (Johanson & Vahlne, 1977).

Historically, internationalization literature has examined firm internationalization from two dominant perspectives: the stage theory of internationalization (Johanson & Vahlne, 1977) and the more recent “born-global” literature stream (Liesch & Knight, 1999). Although services have gained importance in the trade of world economies (WTO, 2000b), research examining the drivers of service internationalization is limited (Knight, 2000). According to service and innovation literature, a key factor contributing to successful service internationalization is innovation (Atuahene-Gima, 1995a; Kim, Hwang, & Burgers, 1993; Kogut, 1993). Although innovation is recognized as a driver of firm internationalization, there is no documented research that integrates service internationalization and human capital as the source of innovation in highly skilled professional service firms.

Furthermore, research examining human resources has largely been limited to human resource management (HRM) and the examination of hiring practices of firms to

the omission of the contributing factor that human skills and experience have on influencing a firm's strategic direction. Recent examination of human capital in strategy literature has focused on human capital as resources of the firm (Hitt, Hoskisson, & Kim, 1997), yet omits examination of a direct causal link between human capital and firm internationalization. Even after several decades of research on services and the development of a separate service-dominant logic to address the uniqueness of service goods, there remains little theoretical advancement in understanding "service" either as a pure service component or in conjunction with a tangible good as a value-added enhancement (Lusch & Vargo, 2006; Lusch, Vargo, & O'Brien, 2007; Vargo & Lusch, 2004a, b).

Moreover, as customers' demands change and competitors duplicate offerings, service firms turn to innovation to remain competitive in domestic markets and look to foreign markets to find new customers. However, literature does not provide insight into the driving factors that contribute to innovation and the consequences on firm expansion and profitability. To date, innovation research has largely focused on new product development and manufacturing products with substantially less attention to service innovation. Research examining innovation in professional services is virtually nonexistent. Given the growth of services in world trade, managerial influences on innovation and the resulting outcomes warrant further examination (Atuahene-Gima & Ko, 2001).

1.2 *Statement of the Problem*

This research undertakes a multidisciplinary approach to research in response to an observation of several common research themes across multiple disciplines. The

larger goal, or problem, being addressed by this research is the need for a multidisciplinary integrative research approach for the advancement of several literature streams. On a more specific note, this research seeks to address the following questions:

- What are the drivers of professional service firm internationalization for SMEs?
- What is the role of human resources in professional service firm internationalization?
- Why have SMEs been able to succeed when logic dictates that only large firms have the financial capital and knowledge to internationalize?
- What key factors contribute to professional service SME success in global markets?
- Does innovation contribute to professional service firm internationalization?
- What is the effect of an innovation strategy on the performance of a global professional service firm?
- Does internationalization negatively impact firm performance of professional service SMEs?

1.3 *Service Classifications*

The emphasis of this study on services necessitates discussion of the unique characteristics of services as opposed to manufacturing goods. The focus of this research is professional services, a category within the service industry. Professional service firms were chosen to better understand the unique characteristics associated with the creation of highly skilled intangible service products and their effect on service internationalization. Prior to a discussion of professional service firms, a preliminary understanding of service classifications and service characteristics is needed to differentiate the unique aspects of intangible service products.

Services are “performances, rather than objects, they cannot be seen, felt, tasted, or touched in the same manner in which goods can be sensed” (Zeithaml, Parasuraman, &

Berry, 1985). In contrast to goods, services are typically created during consumption and the customer is often involved and physically present during the consumption process. Service literature suggests that there are different dimensions relevant to service product types (Styles, Patterson, & La, 2005). More importantly, these differences among services are posited to affect the global spread and replication of services in global markets (Lovelock & Yip, 1996).

One of the most prominent service categorizations describes four key characteristics that differentiate service products from physical goods: *intangibility*, *heterogeneity*, *inseparability*, and *perishability* (Lovelock, 1983; Lovelock & Yip, 1996; Zeithaml, Parasuraman, & Berry, 1985).

Intangibility differentiates the nature of the service act and who or what is the recipient of the service (Lovelock, 1983). According to Lovelock (1983), tangible services are directed at people's bodies (e.g., healthcare, haircutting, transportation) or other physical possessions (e.g., landscaping, laundry service, freight transportation). Intangible services are actions directed at people's minds (e.g., education, museums, and information services) or toward other intangible assets (e.g., banking, legal services, accounting, securities, and insurance).

Heterogeneity describes the degree of service uniqueness provided to each consumer, such as in the case of financial, consulting, and accounting services. Heterogeneity is present when services vary from consumer to consumer. For example, professional financial services are customized to deliver varying degrees of consumer financial risk, investments, timeframes, and goals for each service client based upon individualized consumer objectives. In contrast, homogeneity of services infers that there

is a high degree of service consistency, such as in the form of a standard quality, a reliable service, and consistent service delivery. Examples of service homogeneity include consistent delivery of a pre-recorded entertainment program.

Inseparability refers to the simultaneous production and consumption of goods, such as when the customer is a coproducer of the service. Examples of inseparable services include air travel and hotel services. In contrast, separability refers to degree to which the customer is not involved during service production and need not be present during service consumption. For example, professional financial managers receive and invest funds from clients without the consumer being present. Therefore, some services lend themselves to separation of the production and consumption processes, as well as separation of the service provider and consumer. Services that are separable may be more easily internationalized.

Lastly, *perishability* indicates that a service may not be captured and stored for later use, such as in the case of hotels. Rooms are either occupied or not occupied, and service capacity use varies accordingly. In contrast, examples of nonperishable services include: music recordings of entertainment artists, news broadcasts, and educational video-recorded instructional classes. In these services, the creation of the service product may take place at a different time from service consumption.

Although Lovelock's (Lovelock, 1983) service classifications provide greater clarity of differences between goods and services, Lovelock and Gummesson (Lovelock & Gummesson, 2004) admit that the framework has limitations. These authors state that several changes in services have taken place: (1) the addition of a service component to many manufacturing products has blurred service versus product categories, (2)

replacement of humans with automation and improvements in quality have reduced variability or heterogeneity, and (3) advancements in information technology and outsourcing have enabled separation of the service creator from the user. These evolutionary changes have led to services that do not fit neatly into services categories. Therefore, closer examination of service characteristics is warranted.

1.3.1 *Characteristics of Professional Services*

The service industry includes a broad range of services such as: banking, travel and tourism, health care, and insurance real estate services, equipment leasing, hotel and restaurants, tourism, telecommunications, and professional service firms. This research focuses on professional services, which involve highly skilled human assets. Human assets possess specialized knowledge for professional service creation and delivery (Greenwood & Empson, 2003; Hitt, Bierman, Uhlenbruck, & Shimizu, 2006).

Professional services, a sub-sector of services, encompasses law firms, accounting firms, engineering consulting firms, and management consulting firms. As a type of knowledge-based firm, professional service firms create value through the hiring, development, and use of human capital (Hitt, Bierman, Uhlenbruck, & Shimizu, 2003; Lepak & Snell, 1999). Professional service firms that are “intensive in their inputs of technology and human capital” are known as knowledge-based firms (Styles, Patterson, & La, 2005, p. 105). Knowledge intensive firms include legal services, engineering consulting, project management, and information technology firms.

Professional services characteristics require different competencies. In recognition of the unique characteristics of services, a service dominant logic (S-D logic) has evolved. S-D logic addresses special service competencies and the customer’s role in

value creation (Lusch, Vargo, & O'Brien, 2007; Vargo & Lusch, 2008, 2004b). Service dominant logic recognizes the customer as a co-partner or operant resource in the exchange who interacts with firm resources for co-creation of value (Madhavaram & Hunt, 2008; Vargo & Lusch, 2008). These service factors affect separability and internationalization. S-D logic contends that service value is dependent upon competencies in acquiring knowledge from customers, leveraging resources for value creation, and adapting to a dynamic environment (Lusch, Vargo, & O'Brien, 2007). Therefore, professional service international expansion involves consideration of the competencies required of service personnel, or a service firm's human capital.

Since service classes vary by (1) the extent of customer contact, and (2) the degree of service customization (Lovelock, 1983), these factors affect the skills needed by the service provider and the ease of service transfer across borders. Customized professional services require greater involvement, increased communication, and may involve the transfer of power and control to the service provider who defines the nature of the service. In the case of highly customized services, professional service employees diagnose the nature of the service need, design a service solution, and deliver the service to the satisfaction of the customer. This process involves the professional service personnel exercising judgment on behalf of the client to create a customized service solution.

With highly customized products, service creation and delivery may also entail a high degree of face-to-face contact, which requires that the service personnel possess judgment, discretion, and adaptation skills (Patterson & Cicic, 1995). Strong interpersonal skills, technical skills, and cultural sensitivity are vital to engineering,

medical, and legal services in international contexts. High levels of face-to-face contact are prevalent among professional services, such as architectural, legal, property consulting, insurance brokering, customized software, and computer systems services (Styles, Patterson, & La, 2005).

Thus, human capital is a key resource of a professional service firm. Prime examples of knowledge-intensive professional services that require extensive professional training and highly skilled service personnel include financial, legal, medical, and engineering/architecture services. A review of international service literature by Patterson and Cicic (1995) states that service personnel of intangible professional services should possess not only a high degree of technical skills, but also strong interpersonal skills (Patterson & Cicic, 1995).

1.3.2 *Internationalization of Services*

International services, the topic of this dissertation research study, are defined as “deeds, performances, efforts, conducted across national boundaries in critical contact with foreign cultures” (Clark, Rajaratnam, & Smith, 1996).

Internationalization is defined as “expansion across the borders of global regions and countries into different geographic locations, or markets” (Hitt, Hoskisson, & Kim, 1997, p. 767).

From 1980 to 1998, several changes took place which fundamentally affected international marketing of services (Bell, Crick, & Young, 2004; Lovelock & Yip, 1996; Patterson & Cicic, 1995). The Uruguay Round of the General Agreement on Tariffs and Trade (GATT) paved the way for growth of services internationally (Fieleke, 1995).

Reduced barriers to foreign market entry resulting from trade agreements and technology

developments supported global service expansion (WTO, 2007a). As a result, growth in all service categories has been observed in both developing and developed economies (Javalgi, Griffith, & White, 2003; UNCTAD, 2007a; WTO, 2007a). The 2007 World Trade Report indicates that growth in services has averaged approximately 10% per year from 2000 through 2006. Of notable mention is the growth in GDP and service trade of emerging markets such as China and India (UNCTAD, 2007b; WTO, 2007b). India, an economy where service contributions to GDP outpace manufacturing, has continued to experience a growth in GDP surpassing global GDP average growth rates.

According to the UNCTAD 2005 report on professional services trade (UNCTAD, 2005), professional services are one of the fastest growth sectors in world economies, experiencing double-digit growth. In developed economies, the fastest growing sector is knowledge-based services (e.g., management consulting, engineering, architectural, education, information technology, biotechnology), which have grown at an average annual rate of 10% to 12% over several years (Styles, Patterson, & La, 2005). Despite the rise in importance of services and knowledge-based services, there is limited research on factors that drive export success in this sector (Knight, 1999).

A review of service internationalization by Knight (1999) indicates that previous research on service internationalization has focused on the choice of service entry mode and the level of foreign direct investment (FDI) (Knight, 1999), with a lack of attention to professional service firms. The lack of professional services research is notable considering the reported contribution of professional services to worldwide employment, production, and trade (UNCTAD, 2007b; WTO, 2007b).

Lovelock and Yip offer a service classification framework to aid in understanding the ease of global service expansion (Lovelock, 1983; Lovelock & Yip, 1996). The service categories include: people-processing services, possession-processing services, and information-based services.

People-processing services involve a transfer of an intangible product to a physical person, such as in the case of barbers or health care providers. The distinguishing factor of people-processing services is that the customer takes part in service production. In addition, the customer or service provider must often travel to the other party and use equipment for the service to take place. For this reason, geographic proximity to the customer is important. People-processing services must also adapt to the local culture to overcome local market barriers or hire individuals who possess education and work experience in the foreign market (Lovelock, 1983; Lovelock & Yip, 1996). As a result of service variability, standardized service solutions are difficult, and customer involvement in service production inhibits the ability to gain economies of scale.

Possession-processing services differ from people-processing in that a service is performed on a physical product to enhance its value to the consumer. Dry cleaning or car repair are examples of this category. Similar to people-processing services, a possession-processing service most often is brought to the consumer or the customer may travel to the service to partake of its benefits. Geographic presence is also an integral part of this service type. Due to standardization of the service, possession-processing services are more amenable to internationalization since the service provider need not cope with cultural and customer differences to any great extent.

Information-based services are the result of insight from data or information collection, analysis, and interpretation. Information-based services globalize with greater ease since they may be delivered via electronic means. Customers do not need to be physically close to the service provider; hence, geographic proximity is not critical. Examples of information-based services include banking, accounting, legal services, insurance, health, or consulting services. Information-based services can easily be split between centralized back-office processing and front-office local delivery to facilitate global expansion and economies of scale. Customization may also be offered using supplementary services that reflect the local market willingness to pay for differentiation.

Another well recognized service classification framework that describes service inseparability is found in foreign market entry mode literature. The framework, proposed by Erramilli and Rao (1990), differentiates between “hard services” and “soft services.” Hard services (e.g., architectural/engineering, consultants, and computer/information technology firms, banking services and research) permit separation of production from consumption and are not affected by inseparability. Alternatively, soft services (e.g., healthcare, restaurants, and hair styling salons) involve simultaneous service creation and consumption, which requires the physical proximity of partners. Therefore, hard services are easier to internationalize (Erramilli & Rao, 1993).

International services are so complex that externally valid theories may never emerge (Clark, Rajaratnam, & Smith, 1996). International service research over the decade of the 1990s has largely focused on specific industries and MNEs. Significant gaps exist in research on service internationalization (Knight, 1999). A review of international service research by Knight (1999) found only four studies of services.

Regarding professional service SMEs, the confidential nature of private small businesses has made conducting research on professional service SME internationalization difficult. However, a few studies of large MNE law firms have advanced our understanding of professional service internationalization (Brock, Yaffe, & Dembovsky, 2006; Hitt, Bierman, Uhlenbruck, & Shimizu, 2003, 2006; Kor & Leblebici, 2005). Research indicates that expansion of professional law firms has been accomplished by deploying expatriates to foreign locations while training foreign employees in domestic locations. After training, foreign employees are transferred back to their home country to staff local offices. Professional service internationalization, such as in the case of law firms, relies heavily upon intellectual property, specialist expertise, and knowledge; all of which are key intangible drivers of successful international performance (Anderson & Gatignon, 1986; Erramilli & Rao, 1990, 1993).

Research also suggests that internationalization varies within service categories (Styles, Patterson, & La, 2005). Differences exist in the ease and pace of service internationalization (Javalgi, Griffith, & White, 2003; Lovelock & Yip, 1996; Patterson & Cacic, 1995). Although studies of international services exist, gaps remain in the examination of the antecedents to service internationalization and performance (Hutchinson, Alexander, Quinn, & Doherty, 2007). Research on professional SMEs internationalization is virtually nonexistent.

A review of international services marketing literature from 1980 to 1998 by Cacic, Patterson, and Shoham, 2002) finds the amount of empirical research conducted in services strikingly limited. Knight (1999, p. 356) states that the gaps in extant service literature are “very considerable.” The limited amount of service literature indicates that

service internationalization may be a function of several key factors: (1) the intensity of human involvement or customer contact in the service and the corresponding labor intensity, (2) the extent of customization and cultural adaptation, and (3) the degree of tangibility (Knight, 1999). Thus, little is known about service internationalization among service sectors and factors contributing to global expansion.

1.4 *Degree of Internationalization*

The degree of internationalization reflects a firm's level or extent of international diversification and is often reflected by the number of different markets in which a firm operates and their importance to the firm, and is most often measured as the percentage of foreign sales to total sales (FSTS) (Hitt, Hoskisson, & Kim, 1997). Global market diversification provides firms with opportunities to increase returns by leveraging existing products and competencies across multiple global markets for higher performance with lower risk (Hitt, Hoskisson, & Kim, 1997). Global diversification offers opportunities for economies of scale and scope. According to Hitt, Hoskisson, & Kim (1997), diversity of markets also increases the likelihood that innovation will satisfy the consumers' needs. International diversification also provides firms with the ability to maximize resources across markets through global sourcing, which insulates the firm from negative environmental forces.

A firm's degree of internationalization has been conceptualized in prior research using various terminology, such as export intensity, international business intensity, internationalization, scale and scope of internationalization, international diversity, geographic diversity, and degree of internationalization (Cavusgil & Zou, 1994; George, Wiklund, & Zahra, 2005; Lu & Beamish, 2001, 2004; Pla-Barber & Escriba-Esteve,

2006; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Sullivan, 1994; Zahra & Garvis, 2000; Zahra, Ireland, & Hitt, 2000). The majority of studies have chosen to use a single measure of FSTS (Preece, Miles, & Baetz, 1999).

1.5 *Small and Medium-Sized Enterprises (SMEs)*

On average, SMEs account for approximately 50% of GDP and 60% of employment in national economies (UNCTAD, 2004), and 25% to 35% of world manufactured exports (Hall, 2002; Sakai, 2002; Schreyer, 1996). Differences between small and large firms have long been recognized. Firm size is as a key factor in strategic literature (Shuman & Seeger, 1986). In contrast to large firms, SMEs have limited financial and managerial resources (Hoskisson, Johnson, & Moesel, 1994) which may impede growth and foreign expansion. It is believed that small businesses and large businesses are different species (Shuman & Seeger, 1986).

Although there is no generally accepted definition of a SME, entrepreneurship literature most commonly uses the definition provided by the Small Business Administration (Oviatt & McDougall, 1994). The SBA defines SMEs as independent enterprises with less than 500 employees. Use of firms with fewer than 500 employees for classification as a SME is congruent with SME characteristics deemed appropriate by researchers (Leonidou, Kaminarides, & Hadjimarcou, 2004; Lu & Beamish, 2001) and in accordance with the North-American Industrial Classification System (NAICS). According to an in depth examination of SMEs, the established definition of a SME is a smaller firms employing 500 or less employees, and/or having sales turnover less that \$25 million U.S. dollars (Leonidou, Kaminarides, & Hadjimarcou, 2004).

1.6 *India: A Profile of an Emerging Market*

Since the focus of this dissertation is entrepreneurial SMEs in India, a brief review of India's demographic and economic status is warranted.

Population and Economy

According to the World Trade Organization (WTO, 2007b), India's population as of 2006 was approximately 1,110 million people. India's GDP per capita is \$3,800, with 25% of the population estimated to be below the poverty level (CIA, 2007). India's age structure is comprised of 32.8% in the age range of 0-14 years, 63.1% between 15-64 years of age, and 5.1% of people age 65 years and over (CIA, 2007).

Gross Domestic Product

India's reported GDP in U.S. currency was over \$906,268 million as of 2006, placing India in the category of a trillion-dollar economy (WTO, 2007b). According to the WTO, India ranked 28th in merchandise exports, 17th in merchandise imports, 10th in commercial services exports, and 13th in commercial services imports in 2006. India's commercial services exports total \$73,839 million for the year 2006 and imports totaled \$63,696 million (WTO, 2007b).

India's growth in GDP has averaged 5% during the mid-1990s (UNCTAD, 2000) and was reported as 8% in 2006 (UNCTAD, 2007b). Current GDP growth of 8% has outpaced global GDP average growth rates of 3.4% for 2007 and 4% in 2006. Strong growth in GDP is attributable to services. For the period 1951 to 2000, the percentage of GDP attributed to agriculture fell from 58% to 25%. Over the same period, the contribution of services to GDP grew from 15% to 48% (Gordon & Gupta, 2004), and

reached 57% by 2004 (Karmakar, 2007). A review of India's GDP in comparison to various regions and the World GDP is provided in Table I.

Table I. Selected Country Annual Average Growth Rates of Real Domestic Product

<i>Economy</i>	<i>2000 – 2005</i>	<i>2001 – 2002</i>	<i>2002 – 2003</i>	<i>2003 – 2004</i>	<i>2004 – 2005</i>
World	2.8 %	1.9 %	2.8 %	4.0 %	3.4 %
Developed Economies	2.0 %	1.2 %	1.9 %	3.1 %	2.5 %
Developing Economies	5.2 %	4.1 %	5.4 %	6.9%	6.3 %
Economies in Transition	6.2 %	4.9 %	6.8 %	7.5 %	6.2 %
Developed Economies					
Bermuda	3.2 %	5.8 %	4.4 %	1.6 %	2.5 %
Canada	2.8 %	3.1 %	2.0 %	2.9 %	4.6 %
United States	2.6 %	1.6 %	2.7 %	4.2 %	3.2 %
Israel	1.7 %	-1.5 %	1.3 %	4.7 %	4.9 %
Japan	1.4 %	0.1 %	1.8 %	2.3 %	2.6 %
China	9.6 %	9.1 %	10.0 %	10.1 %	9.9 %
India	6.7 %	4.1 %	8.6 %	7.1 %	8.7 %

Source: World Trade Organization Handbook of Statistics 2006-07, Interactive, Retrieved March 17, 2008, from <http://stats.unctad.org/Handbook/ReportFolders/reportFolders.aspx>

According to the UNCTAD 2007 Trade and Development Report, strong growth is expected to continue and is attributable to service growth (UNCTAD, 2007b). India's service growth has averaged 6.6% percent per year from 1980 to 1990 and 9% during the 1990s. In comparison, India's industry growth was 5.8% and agriculture growth was 3.1% over the same time period (Leonidou, Kaminarides, & Hadjimarcou, 2004).

As the world's largest and fastest growing democracy (Javalgi & Talluri, 1996; Venkataramanaiah & Parashar, 2007), India's economy has experienced tremendous growth as a result of various reforms (e.g., tax, regulations, finance, exchange controls, trade, etc.) implemented throughout the 1980s and economic liberalization of the 1990s.

Although new global competition and increased private participation threatened the SME sector with severe competitive pressure, the sustainability and growth of the India's SME sector attests to the entrepreneurial success of SMEs and their capability to

compete in international markets with high quality, knowledge-based services (Kapur & Ramamurti, 2001; Venkataramanaiah & Parashar, 2007).

The survival and growth of India's SMEs has garnered global attention and the commitment of many multinationals to establish locations in India (e.g., Yahoo, Hewlett Packard, and General Electric). India now ranks in the top ten nations in several small business sectors (Venkataramanaiah & Parashar, 2007). As is evident, India has witnessed tremendous growth and experienced successful internationalization.

Services Trade

India's contribution to world trade of services for the year 2006 accounted for 2.7% of world total exports and 2.41% of world total imports, representing a 36% increase in exports and a 29% increase in imports over 2005 (WTO, 2007b). Table II provides a comparison of India's value and share of service exports relative to the U.S. and world total of service exports.

In comparison, the U.S. accounts for 14.11% of world trade exports and 11.62% of world trade imports. The U.S. also reports an annual growth rate of 10% for exports and 9% for imports over the 1990s decade. India's export growth has exceeded the world average of 14% (UNCTAD, 2007b).

Historically, India's service exports grew by over 17% during the 1990s, which is one of the fastest growing in the world when compared to the world average of 5.6% over the same time period. Interestingly, service exports grew two-and-a-half times faster than domestic service growth. Among India's services exports, the largest increase has been in software and other business services (Salgado, 2003).

Table II. Value and Share of Total Exports of Services

(US Dollars at current prices in millions)				
ECONOMY	1990	2000	2005	2006
World	\$831,676	\$1,536,459	\$2,536,775	\$2,812,815
India	\$4,625	\$16,684	\$55,831	\$76,646
U. S.	\$146,460	\$295,965	\$384,612	\$418,848

Percentage of Total World Service Exports				
ECONOMY	1990	2000	2005	2006
World	100.00 %	100.00 %	100.00 %	100.00 %
India	0.56 %	1.09 %	2.20 %	2.72 %
U. S.	17.61 %	19.26 %	15.16 %	14.89 %

Percentage of Total Trade in Services Exports				
ECONOMY	1990	2000	2005	2006
World	19.90 %	19.41 %	19.69 %	19.03 %
India	20.19 %	27.84 %	35.33 %	38.75 %
U. S.	27.36 %	27.64 %	29.98 %	28.97 %

Source: World Trade Organization Handbook of Statistics 2006-07, Interactive, Retrieved April 23, 2008, from <http://stats.unctad.org/Handbook/ReportFolders/reportFolders.aspx>

SMEs in India

In India, there are approximately 12.34 million SMEs, which contribute approximately 6 per cent to the GDP of India (Sridharan, 2006). Between the years 2002 to 2006, SME output in India grew by more than 50 per cent (Karmakar, 2007).

According to Vendataramanaih (Venkataramanaiah & Parashar, 2007), SMEs employ 13 per cent of the population and generate 45 per cent of exports as of 2006.

Although policies have contributed to the liberalization of the service economy in India, the question remains: How are service firms able to successfully internationalize and report strong performance returns in a globally competitive market?

1.7 Anticipated Contributions of the Study

This dissertation study provides several contributions to literature and addresses the call for the development of an integrated, multidisciplinary approach to understanding

small firm internationalization (Venkataramanaiah & Parashar, 2007). This research empirically tests newly hypothesized, cross-disciplinary relationships to provide insight into factors that affect professional service firm internationalization and financial performance, an area that has been addressed by only a handful of studies. Specifically, the anticipated contributions of this dissertation include:

1. An empirically validated multidisciplinary framework that integrates and extends the fields of marketing/international marketing, entrepreneurship, management, strategy, and international business;
2. Empirical evidence of the effect of an entrepreneurial orientation on firm internationalization in the professional services industry;
3. Confirmation of the value of intangible firm human capital assets as positively contributing to professional service internationalization and innovation.
4. Empirical support for the resource-based view (RBV) (Barney, 1991; McDougall & Oviatt, 2000) as evidenced by the positive effect of intangible firm resources on service internationalization;
5. Evidence of a positive relationship between professional service firm internationalization and financial performance;
6. Advancement of SME internationalization research from empirical examination of SME service internationalization in an emerging market.

Entrepreneur → Internationalization of Professional Services Contribution

The examination of an entrepreneurial orientation in both domestic and international markets by marketing researchers is limited, although many areas exist for potential contribution by the marketing discipline (Chari, Devaraj, & David, 2007; Hitt,

Hoskisson, & Kim, 1997; Lumpkin & Dess, 1996). Few studies have examined the benefits of entrepreneurial approaches to professional service firm internationalization. A key area for exploration is the role of management's experience and entrepreneurial views (Styles & Seymour, 2006).

Human Capital Resources → Internationalization and Innovation Contribution

Although research that examines human capital is limited, it has great potential to contribute to service research. Human capital has recently been brought to the forefront of international business literature as a contributor to the successful internationalization of professional service firms (Hitt, Bierman, Uhlenbruck, & Shimizu, 2003, 2006). Within the field of human resource management there remains a gap in understanding human resources and their contribution to firm performance (de Pablos, 2004). This dissertation clarifies the role of intangible human capital in service internationalization and innovation by highlighting the importance of the human component in explaining variances among services. This study also advances the role of human knowledge as a contributor to firm internationalization.

Degree of Internationalization → Performance Contribution

Research has not achieved generalizability of findings on the relationship between internationalization and performance and has focused on large firms within the U.S. (Hitt, Hoskisson, & Kim, 1997) to the absence of services, and even more so, professional services. According to Hitt, Hoskisson, and Kim (1997), internationalization has been observed from lesser developed regions and emerging markets, yet there remains much to learn about firm diversification (Hitt, Tihanyi, Miller, & Connelly, 2006; Lu & Beamish, 2001; Thomas, 2006). Research is greatly needed to understand the factors contributing

to differing performance consequences of international diversification (Hitt, Hoskisson, & Kim, 1997; Hitt, Tihanyi, Miller, & Connelly, 2006). This research addresses these gaps with a study of India's emerging SMEs and provides insight into the internationalization of professional service firms and the resulting performance consequences.

SME Internationalization Contribution

Researchers recognize the important role of SMEs in global markets yet note a lack of understanding of factors influencing SME internationalization. Knight (2000) posits that SMEs may exhibit strong entrepreneurial behavior since they may lack resources to compete with larger firms. Knight (2000) suggests that entrepreneurship may be a key orientation of SMEs facing globalization forces and that research is needed to gain knowledge of the antecedents to SME internationalization (Knight, 2000). The effect of entrepreneurship on SMEs internationalization is not well understood (George, Wiklund, & Zahra, 2005; Liesch & Knight, 1999). This research addresses this gap with a study of entrepreneurial, international SMEs in India.

Service Innovation Contribution

Existing research on innovation is ambiguous regarding the effects of innovation outcomes (Damanpour & Wischnevsky, 2006). Studies that examine innovation and performance are limited and findings are not consistent (Gatignon, Tushman, Smith, & Anderson, 2002). Prior research has focused in manufacturing and neglected innovation in services (Atuahene-Gima, 1996a). This study contributes to service literature by examining the antecedents of service innovation as human capital and an entrepreneurial

orientation. Furthermore, service internationalization is also examined as a consequence of innovation, providing a contribution to both innovation and services literatures.

1.8 *Organization of the Paper*

This dissertation first addresses the background relevant literature prior to model and hypothesis development. Second, the research design and methodology are discussed. Third, research findings are presented then followed by a discussion of the findings, managerial implications, and limitations of the study.

Specifically, Chapter I begins with an introduction to the topic of research addressed by this dissertation.

Chapter II contains a literature review of relevant areas of entrepreneurial orientation, human capital, internationalization theories, as well as the current state of the internationalization of services and professional services, aspects of a firm's degree of internationalization, innovation, and firm performance.

Chapter III encompasses model and hypothesis development of relationships among constructs. Specifically, this dissertation examines (1) the antecedent effects of an entrepreneurial orientation and human capital on service innovation and a professional service SME's degree of internationalization, (2) the effect of innovation on internationalization, and (3) the influence of internationalization and innovation on performance.

Chapter IV entails a review of the research design and methodology inclusive of the details describing a preliminary survey pretest, the process of sample selection, data collection procedure, survey items, and scales used. The techniques used for data

analysis are described in detail, methods are described for hypothesis testing, and results examined for validity and reliability of measures.

Chapter V presents the research findings including a discussion of hypothesis testing, and a summary of results.

Chapter VI concludes with a discussion of the research findings, managerial implications, theoretical contribution of the research, limitations of the study, future research directions. Lastly, conclusions are provided in the closing remarks. The remaining contents include a bibliography containing citations for all references noted, and an appendix that includes copies of the survey documents, descriptive statistics, SPSS statistical output, etc. A list of tables and figures referenced throughout the body of this dissertation study are provided directly after the table of contents.

CHAPTER II

LITERATURE REVIEW

A complete review of literature addressing entrepreneurs, entrepreneurial activities, behavior, strategy, etc., is beyond the scope of this dissertation, which utilizes a view of entrepreneurial orientation at the firm level (Miller, 1983). Although over 1000 articles have been published in journals, major advancements in the conceptualization of entrepreneurship at the level of the firm have taken place during the 1970s. Along with developments in the field of entrepreneurship, several research streams have now reached a point of overlap. A review of relevant key literature advancements will now be discussed.

2.1 *Entrepreneurial Orientation*

Entrepreneurship, originally conceived by Schumpeter (1934), refers to a person or a function across an organization. An entrepreneurial mode of strategy discussed in early writings of economists was described as a search for new opportunities where the goal of the organization is growth (Lawyer, 1945). Although the concept of risk and bold behavior has been mentioned in prior articles by Mintzberg (1973) and Khandwalla (1987), the origins of an “entrepreneurial orientation” are traced to Miller (1983), and

Miller and Friesen (1982). For clarity, an entrepreneurial orientation is defined as “the processes, practices, and decision-making activities that lead to new entry” (Lumpkin & Dess, 1996, p. 136). Additional major entrepreneur literature advancements were subsequently contributed by Covin and Slevin (1988, 1989, 1991) as well as other noted authors: Lumpkin and Dess (1996, 2001), Zahra (1991, 1993a, b, c), Zahra and Covin (1995), Zahra and Garvis (2000), Zahra, George, and Dharwadkar (2001), and Zahara, Newbaum, and El-Hagrassey (2002).

The distinction between entrepreneurship and an entrepreneurial orientation is important. This distinction, which has been discussed in strategic management literature, is emphasized by Lumpkin and Dess (1996) and is critical to understanding the difference between the innovativeness dimension of an entrepreneurial orientation and innovation as an outcome of entrepreneurial orientation.

According to Lumpkin and Dess (1996), entrepreneurship is an act of “new entry” and a firm-level phenomenon. New entry can include either entering new or established markets with new or existing goods/services, or launching a new venture start-up firm (Lumpkin & Dess, 1996). Research focusing on start-up firms and intrapreneuring also notes the influence of contextual organizational factors on the flexibility and innovativeness of the firm and its business units (Antoncic & Hisrich, 2001; Hisrich, Peters, & Shepherd, 2005; Nielsen, Peters, & Hisrich, 1983).

Miller and Friesen (1982, 1983) observed “entrepreneurial” firms as trying to gain a competitive advantage through innovations and risk-taking. These authors assert that product line or service innovations are a vital part of strategy. Miller and Friesen (1982) argue that entrepreneurship is a determinant of innovation, which is a function of

innovation strategy. Innovation strategy, according to these authors, is either forced through management and the structure of the firm, and is a natural state of entrepreneurial firms. Miller's description of an entrepreneurial firm is one that undertakes bold innovation and considerable risk. Miller (1983) further defines entrepreneurship as including risk-taking, innovation, and proactiveness.

In 1983, Miller (1983) shifted the focus of entrepreneurial research from individual activities by extending Schumpeter's concept of entrepreneurial innovation, risk-taking, and pursuit of new opportunities to the organizational level. A second study by Miller and Friesen (1983) included the same three dimensions but also incorporated the effect of environmental factors (*dynamism, hostility, and heterogeneity*). Miller's (1983) definition served as the foundation for the subsequent development of an entrepreneurial style measure, referred to as an entrepreneurial orientation by Covin and Slevin (1988, 1989) and Naman and Slevin (1993). The measure incorporated two risk-taking items from Khandwalla (1977), an additional two product innovation items from Miller and Friesen (1982), and two proactiveness items from Miller's scales (Miller, 1983; Miller & Friesen, 1978, 1982). This measure of an entrepreneur orientation developed by Miller (1983) and Covin and Slevin (1988, 1989) is the conceptualization most often used in research. Thus, an entrepreneurial firm is described as "one that engages in product-market innovations, undertakes risky ventures, and is first to come up with proactive innovations" (Zahra, 1993c, p. 47).

An alternative conceptualization offered by Lumpkin and Dess (1996) proposes that entrepreneurship consists of five dimensions: innovativeness, risk-taking, proactiveness, autonomy, and competitive aggressiveness. Autonomy, the fourth

dimension, represents an individual or group creation of a new idea or vision that is then implemented independently. The fifth dimension, competitive aggressiveness, refers to the firm's propensity to challenge its competitors directly and is important in new market inter-firm competition. Lumpkin and Dess (1996) differentiate proactiveness from competitive aggressiveness by explaining that proactiveness relates to market entry, and competitive aggressiveness refers to the position of a firm relative to its competitors. These authors indicate that proactiveness is more closely related to innovativeness and that these two dimensions may co vary, as in the case of new product introductions. Lumpkin and Dess (1996) also argue that firms may be entrepreneurial even though they may not exhibit high entrepreneurial behavior across all entrepreneurial dimensions. These authors contend that the dimensions of entrepreneurship are context specific, indicating that only those dimensions that are relevant will be evoked. Therefore, all five dimensions may occur to differing degrees depending on the context and opportunity pursued by the firm (Venkatraman, 1989).

After extending entrepreneurship from an individual behavior to a firm level behavior (Miller, 1983), the domain evolved further to accept a conceptualization that encompassed entrepreneurial resource combinations in all sizes of firms, not only in small ventures (Miller, 1983). At this point, an entrepreneurial orientation had become a topic of interest by researchers in several disciplines. Risk-taking, aggressive, and innovative behavior was noted in organization studies (Covin & Slevin, 1991), strategic management literature (Khandwalla, 1987), and management science periodicals (Covin & Slevin, 1989; Miller & Friesen, 1982, 1983). Researchers continued to advance the meaning and definition of entrepreneurship and have used various terms to describe this

phenomenon including entrepreneurship (Miller, 1983; Miller & Friesen, 1978; Venkatraman, 1989), entrepreneurial posture (Miller, 1983), entrepreneurial style (Covin & Slevin, 1991), and entrepreneurial orientation (Naman & Slevin, 1993). Naman and Slevin (1993, p. 143) offer a definition of entrepreneurship as “an aggregate measure of three dimensions: the willingness to take business related risks, the willingness to be proactive when competing with other firms, and the willingness to innovate, i.e. to favor change and innovation in order to obtain competitive advantage.”

A review of studies of entrepreneurship across disciplines indicates that the majority of research utilizes a three dimensional definition of an entrepreneur orientation which includes innovative, risk-taking, and proactive behavior (Khandwalla, 1977; Naman & Slevin, 1993). The majority of research has utilized an aggregate, higher order entrepreneurial construct. A list of prior entrepreneurial studies, the dimensions operationalized, and whether or not an aggregate measure was used is provided in Table III. Authors conceptualize an entrepreneurial orientation as a unidimensional strategic firm orientation. Studies have also examined an entrepreneurial orientation at the individual level, SBU level, and firm level (Covin & Slevin, 1989; Miller, 1983; Miller & Friesen, 1982). However, it is firm-level entrepreneurship that has the most significant effect on firm performance (Miller, 1983).

Table III. Literature Review of Entrepreneurial Orientation Construct

Author	Year	Dimensions	Aggregate Measure Y/N	# of Scale Items Used	Source of Scale Noted by Author if Available
Mintzberg	1973	Risk-taking, Proactiveness, Centralization, and Growth	N/A	N/A	
Khandwalla	1977	Risk-taking, Flexibility, Centralization	N/A	6	
Miller & Friesen	1982	Innovation, Risk-taking	Y	5	
Miller	1983	Innovation, Risk-taking, Proactiveness	Y	7	
Miller & Friesen	1983	Analysis, Innovation	Y	10	
Khandwalla	1987	Risk-taking, Operating Flexibility, Centralization	Y	6	
Covin & Slevin	1988	Innovation, Risk-taking, Proactiveness	Y	6	(Khandwalla, 1977; Miller & Friesen, 1982)
Covin & Slevin	1989	Innovation, Risk-taking, Proactiveness	Y	9	(Khandwalla, 1977; Miller & Friesen, 1982)
Venkatraman	1989	Analysis, Riskiness, Aggressiveness, Proactiveness	N/A	20	Combination of over 15 scales
Covin & Slevin	1990	Competitive Aggressiveness	N/A	3	(Khandwalla, 1977; Miller & Friesen, 1982)
Stevenson & Jarillo	1990	Conceptual	N/A	N/A	
Covin & Slevin	1991	Conceptual	N/A	N/A	
Miles & Arnold	1991	Innovation, Risk-taking, Proactiveness	Y	9	(Miller, 1983; Covin & Slevin, 1989)
Zahra	1991	Innovation, Risk-taking, Proactiveness	Y	9	(Miller, 1983; Morris & Gordon, 1987)
Naman & Slevin	1993	Innovation, Risk-taking, Proactiveness	Y	9	(Khandwalla, 1977; Miller, 1983; Covin & Slevin, 1988)
Zahra	1993a	Venturing, Innovation	Y	27	

Author	Year	Dimensions	Aggregate Measure Y/N	# of Scale Items Used	Source of Scale Noted by Author if Available
Zahra	1993b	Conceptual	N/A	N/A	
Zahra & Covin	1995	Innovation, Risk-taking, Proactiveness	Y	7	(Miller & Friesen, 1982)
Merz & Sauber	1995	Innovation, Proactiveness	Y	5	(Miller, 1983; Covin & Slevin, 1989, 1990)
Lumpkin & Dess	1996	Innovation, Risk-taking, Proactiveness, Autonomy, Competitive Aggressiveness	N/A	N/A	
Covin, Slevin, & Schultz	1997	Innovation, Risk-taking, Proactiveness	Y	9	(Khandwalla, 1977; Miller & Friesen, 1982; Covin & Slevin, 1989)
Dickson & Weaver	1997	Innovation, Risk-taking, Proactiveness	Y	8	(Miller & Friesen, 1982; Covin & Slevin, 1988, 1989)
Becherer & Maurer	1997	Innovation, Risk-taking, Proactiveness	Y	9	(Covin & Slevin, 1989)
Knight	1997	Innovation, Proactiveness	Y	8	(Covin & Slevin, 1989; Miller & Friesen, 1978)
Zahra & Neubaum	1998	Innovation, Risk-taking, Proactiveness	Y	7	(Miller & Friesen, 1982; Miller, 1983)
Covin & Slevin	1998	Risk-taking	Y	3	(Miller & Friesen, 1982)
Barringer & Bluedorn	1999	Innovation, Risk-taking, Proactiveness	Y	9	(Khandwalla, 1977; Miller & Friesen, 1982; Covin & Slevin, 1988)
Wilklund	1999	Innovation, Risk-taking, Proactiveness	Y	8	(Miller & Friesen, 1982)
Zahra & Garvis	2000	Innovation, Risk-taking, Proactiveness	Y	7	(Miller & Friesen, 1983; Covin & Slevin, 1989; Zahra, 1991)

Author	Year	Dimensions	Aggregate Measure Y/N	# of Scale Items Used	Source of Scale Noted by Author if Available
Lumpkin & Dess	2001	Innovation, Risk-taking, Proactiveness, Competitive Aggressiveness	N	11	(Khandwalla, 1977; Miller & Friesen, 1983; Covin & Slevin, 1986, 1989, 1990)
Zahra, George, & Dharwadkar	2001	Innovation, Risk-taking, Proactiveness	Y	7	(Miller, 1983)
Lee, Lee, & Pennings	2001	Innovativeness, Risk-taking, Proactiveness	Y	7	(Hage, 1980; Miller & Friesen, 1982; Miller, 1983; Naman & Slevin, 1993; Lumpkin & Dess, 1996)
Kreiser, Marino & Weaver	2002	Innovation, Risk-taking, Proactiveness	N	8* *One item removed	(Covin & Slevin, 1988, 1989)
Matsuno, Menzer, & Ozsomer	2002	Innovativeness, Risk-taking, Proactiveness	Y	7* One item removed	(Miller, 1983)
Wiklund & Shepherd	2003	Innovation, Risk-taking, Proactiveness	Y	9	(Covin & Slevin, 1989)
Hult, Snow, & Kandemir	2003	Risk-taking, Proactiveness	Y	5* Innovation items removed	(Naman & Slevin, 1993)
Hult & Ketchen	2003	Innovation, Risk-taking, Proactiveness	Y	5	(Naman & Slevin, 1993)
Weerawardena	2003	Innovation, Risk-taking, Proactiveness	Y	8* *Two items remove	(Naman & Slevin, 1993)
Knight & Cavusgil	2004	Innovation, Risk-taking, Proactiveness	Y	N/A	
Hult, Hurley, & Knight	2004	Risk-taking, Proactiveness	N	5	(Khandwalla, 1977; Covin & Slevin, 1989; Naman & Slevin, 1993)
Weerawardena & O'Cass	2004	Innovation, Risk-taking, Proactiveness	Y	8* *Two items removed during CFA	(Covin & Slevin, 1986; Naman & Slevin, 1993)
Merz & Sauber	1995	Innovativeness, Proactiveness	N	5	(Miller & Friesen, 1982; Miller, 1983)
Wiklund & Shepherd	2003	Innovation, Risk-taking, Proactiveness	Y	9	(Covin & Slevin, 1989)

Author	Year	Dimensions	Aggregate Measure Y/N	# of Scale Items Used	Source of Scale Noted by Author if Available
Wilklund & Shepherd	2005	Innovation, Risk-taking, Proactiveness	Y	8	(Miller & Friesen, 1982)
Zhou, Yim, & Tse	2005	Innovation, Risk-taking, Proactiveness	Y	4* *Multiple items removed	(Naman & Slevin, 1993; Hult & Ketchen Jr., 2001)
Griffith, Noble, & Chen	2006	Innovativeness, Risk-taking, Proactiveness	Y	10* *Risk-taking dimension + one item of Proactiveness removed	(Lumpkin & Dess, 1996; Dess, Lumpkin, & Covin, 1997; Matsuno, Mentzer, & Ozsomer, 2002)

*Extended Version of Source: Kuznik, S. M., Scherer, R., Javalgi, R., Petrick, J., & Susbauer, J. (2006)

Entrepreneurial orientation examined in this research study represents firm level managerial behavior (Naman & Slevin, 1993) and is operationalized as a unidimensional construct. As firm level behavior, entrepreneurial behavior influences the management and leveraging of firm resources (Sapienza, Autio, George, & Zahra, 2006), inclusive of human capital.

2.1.1 *Innovativeness*

Innovativeness depicts “a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes” (Lumpkin & Dess, 1996, p. 923). Innovativeness can be traced to the role of creativity and innovation in market dynamics described by Schumpeter (1934, 1942). Schumpeter’s concept of “creative destruction” involves the process of a firm’s actions and reactions in the pursuit of opportunities in free markets where existing market structures are disrupted and resources are reallocated toward new firms. Schumpeter (1942) argues that creative destruction introduces new goods or services and reallocates resources from existing firms to allow new firms to prosper.

Schumpeter (1942, p. 83) explains that creative destruction “. . . revolutionizes the economic structure . . . incessantly destroying the old one, incessantly creating a new one.” As such, innovativeness creates economic development and is the source of corporate growth and wealth creation. Schumpeter (1934, 1942) was also the first to emphasize innovation as part of the entrepreneurial process. This entrepreneurial activity typifies innovations and alters the evolution of an economy (Schumpeter, 1934).

2.1.2 Risk-taking

Risk-taking is defined as "the degree to which managers are willing to make large and risky resource commitments—i.e., those which have a reasonable chance of costly failures" (Lumpkin & Dess, 1996, p. 923). Zahra and Covin (1995, p. 45) define risk-taking as the company's willingness "to engage in business ventures or strategies in which the outcome may be highly uncertain." Venkatraman (1989) operationalizes risk-taking as the degree to which managers adopt a conservative strategy of following tried and true paths that result in expected certain returns.

In financial terms, risk refers to the probability of a financial loss or negative outcome (Lumpkin & Dess, 1996). According to Lumpkin and Dess (1996) risk-taking behavior in entrepreneurial firms involves taking on debt or using resources for potential high returns. Miller (1983) clarifies that risk-taking is not only a firm that is highly leveraged financially, but also engaged in product-market or technological innovation.

2.1.3 Proactiveness

According to Miller and Friesen (1978, p. 923), proactiveness indicates how the firm reacts to the environment, such as "does it shape the environment . . . by introducing new products, technologies, administrative techniques, or does it merely react."

Proactiveness is a future oriented perspective. Venkatraman (1989) defines proactiveness similar to the proactive strategic firm orientation described by Miles, Snow, Meyer, & Coleman (1978). Miles et al. (1978, p. 551) describe a Prospector firm as “finding and exploiting new product and market opportunities...” and “maintaining a reputation as an innovator.” Similarly, Venkatraman (1989, p. 949) conceptualizes entrepreneurial proactiveness as “proactive behavior in relation to participation in emerging industries, continuous search for market opportunities and experimentation with potential responses to changing environmental trends.”

2.1.4 Evolution of Entrepreneurial Orientation Research

A review of research indicates that the majority of researchers have used Miller and Friesen’s (1982) measure of firm level entrepreneurship (Zahra, Jennings, & Kuratko, 1999). This measure was further refined by Miller in 1983 (Miller, 1983). Work of Covin and Slevin (1988, 1989) extended the prior two-dimension conceptualization (innovation and risk-taking) to include a third dimension, proactiveness. Over the next several decades, researchers explored the application of an entrepreneurial orientation in several industry contexts and the validity of a five-dimension conceptualization (Miller & Friesen, 1982; Lumpkin & Dess, 1996).

A review of literature (refer to Table III) finds that an overwhelming majority of studies utilize a three dimension conceptualization, employ an aggregate measure of an entrepreneurial orientation, and operationalize scales based upon the measure developed by Miller and Friesen (1982) and Covin and Slevin (1988, 1989).

By the year 2000, the disciplines of entrepreneurship and international business came upon a critical point of reflection when research in these fields began to converge.

A landmark article published by McDougall and Oviatt (2000) noted the intersection of these two fields of research. International business (IB) research had expanded from the multinational businesses to the application of IB concepts to smaller firms in international markets. Concurrently, entrepreneur researchers had observed cross border expansion and accelerated internationalization by entrepreneurial firms. By the mid 1990's, both fields of research addressed similar areas and began to question the domain of entrepreneurship.

Trends such as advancements in communications technologies, deregulation, trade treaties, and global transportation have facilitated internationalization of even the smallest and newest SMEs across the globe in both advanced and emerging economies. The field of entrepreneurship has sought to explain firm internationalization and grappled with defining the entrepreneurship domain. By the year 2000, a consensus on the definition of entrepreneurship had still not been reached (Hult, Snow, & Kandemir, 2003). McDougall and Oviatt (2000) noted that the overlap of the domain of entrepreneurship with the constructs of innovation, change management, and strategy clouded academic progress. However, McDougall and Oviatt (2000) observed that scholars seem to agree upon a three dimensional view of entrepreneurship: innovation, proactive behavior, and risk-seeking action, as defined by Covin and Slevin (1989).

In summary, entrepreneurship has evolved to a focus on new ventures and corporate entrepreneurship (Zahra & Garvis, 2000; Zahra & George, 2002; Zahra, Ireland, & Hitt, 2000) with a recent emphasis on the role of entrepreneurship in firm internationalization (McDougall & Oviatt, 2000).

2.1.5 *Internationalization of Entrepreneurial Firms*

According to entrepreneurship literature, internationalization is an entrepreneurial strategic choice (Sapienza, Autio, George, & Zahra, 2006) that drives information needs and the distribution of information for competitive analysis, resource allocation, and strategy development (Zahra, Neubaum, & El-Hagrassey, 2002).

A definition of international entrepreneurship was initially specified as "...a combination of innovative, proactive, and risk-seeking behavior that crosses national borders and is intended to create value in organizations" (McDougall & Oviatt, 2000, p. 903). According to this definition, firm size and age are not a limiting factor. However, the definition of international entrepreneurship has been recently revised to "the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services (Oviatt & McDougall, 2005, p. 540). An alternative definition of international entrepreneurship offered by Styles and Seymour incorporates the concept of exchange as put forth by the marketing discipline. Styles and Seymour (2006) define international entrepreneurship as "the behavioral processes associated with the creation and exchange of value through the identification and exploitation of opportunities that cross national borders."

A review of extant literature on entrepreneurial orientation contributes to our knowledge by: (1) clarifying the domain of the entrepreneur construct, (2) delineating and empirically examining the primary components of the construct in various contexts, (3) observing that an entrepreneurial orientation has largely been examined to evaluate the effects on performance, and (4) acknowledging a limited extension of the entrepreneurship into an international context. The conclusion of this review is that

significant gaps still remain in the examination of an entrepreneurial orientation in three areas: (1) extant literature has not examined an entrepreneurial orientation in international settings to any large degree, (2) very few studies have examined an entrepreneurial orientation in professional services or knowledge-intensive SMEs, and (3) the definition, antecedents, and consequences of an entrepreneurial orientation on firm internationalization is in the early stages of theoretical development and empirical study. Although scholars have made much progress, there still remains an opportunity to provide a significant contribution to the study of entrepreneurship.

2.2 *Human Capital*

Early writings by Penrose (1959, p. 9) refer to the firm as “a collection of physical and human resources.” Grant (1991) offers six classifications of resources: physical, human, capital, financial, technological, and reputational. Therefore, the experience and skills of entrepreneurial managers are resources that provide managers of a firm with knowledge, skills, motivation, problem-solving abilities, and confidence (Styles & Seymour, 2006).

The skills, knowledge, and expertise of service firm’s employees represent a firm’s human capital and are recognized as a valuable component of services (Gimeno, Folta, Cooper, & Woo, 1997; Westhead & Wright, 2001). Human labor is an integral part of service creation and delivery. According to Skaggs and Youndt (2003, FF2), customers introduce variability in service production and require that a firm’s human capital “be proficient at diagnosing problems, thinking creatively, developing novel solutions, and so on . . .” The greater the service employee’s ability to diagnose, develop, create, and deliver innovative solutions for each customer, the more valuable the human

resource to a firm which utilizes these skills for service customization and adaptation to customer heterogeneity.

Greater service customization increases the need for higher levels of human capital skills to recognize, create, and fulfill customers' needs in a diverse service market. Thus, firm level strategy that relies upon differentiation or customization requires human resources that match the firm's strategic posturing and factors of importance to consumers (Skaggs & Youndt, 2003, 2004). As is evident, greater customer contact and service customization is positively related to a firm's human capital (Skaggs & Youndt, 2003). Research indicates that greater service customization has a significant direct affect on the need for employees with prior experience, prior training, and education (Skaggs & Youndt, 2003). Given the resource constraints of smaller firms, differences in human resources may serve as a source of an advantage in highly skilled professional services.

2.2.1 Tacit Knowledge and Human Capital

Knowledge affects the success of organizations (Nonaka & Takeuchi, 1995; Skaggs & Youndt, 2004) and is the firm's most important strategic resource (Nonaka & Takeuchi, 1995). Knowledge is context specific (Bloodgood & Morrow, 2003) and comprised of data, information, and tacit knowledge (Bloodgood & Morrow, 2003; Nonaka, von Krogh, & Voelpel, 2006). Market knowledge is organized, structured information that is specific to the firm's market (Darroch & McNaughton, 2003). Consumer knowledge, a subset of knowledge, is a source of consumer value (Li & Calantone, 1998).

Human capital is “the organization’s members’ individual tacit knowledge” and “. . . includes raw intelligence, skills, and expertise of the human actors in the organizations” which resides inside employees (Bollen, Vergauwen, & Schnieders, 2005, p. 1164). Tacit knowledge is comprised of “mental models, beliefs, and perceptions” (Bontis, 1998, p. 98) and is obtained from personal experiences. Tacit knowledge is difficult to express or convey in spoken word and must be acquired through personal experience and direct involvement, such as apprenticeships (Nonaka, 1991). In contrast, explicit knowledge is easily expressed in written form and is easily transferable (Kluyver & Pearce, 2006). Tacit knowledge creates value in a resource (Prahalad & Hamel, 1990; Teece, 1998). According to Brakensiek and Drucker (2002), tacit knowledge is specific to the context and the profession, and often resides only in the minds of experts.

Service creation and delivery require that service employees possess knowledge and collaborative skills. Service delivery to new customers in new foreign markets involves knowledge interpretation and assimilation skills. Exposure to new knowledge requires both tacit and explicit knowledge to understand, reconfigure, and exploit the new information to maximize its value to the firm and the customer. Service outcomes are intangible behavioral actions that are embedded with tacit and explicit knowledge components, which provide unique value to the consumer.

Frontline employees rely upon tacit service knowledge. Service delivery requires knowledge and creation of a unique new service product for each customer by the service employee. This service process is described by Nonaka (2007, p. 166) as: “Tacit knowledge includes mental models and beliefs in addition to know-how, moving from the tacit to the explicit is really a process of articulating one’s vision of the world—what

it is and what it ought to be.” Customers’ demands also change over time and require updated knowledge and skills in employees. Due to the complex nature of knowledge-intensive professional services, employees who possess tacit service skills are highly valued.

Thus, human capital represents the individual stocks of knowledge embedded in the firm’s collective capability to extract the best solutions from its employees (Bontis, 1998, 1999; Bontis, Seleim, & Ashour, 2007). Foreign business skills and knowledge that are specific to situations and contexts are an important part of market knowledge (Johanson & Vahlne, 2003). Both the international stage theory (Johanson & Vahlne, 1977) and the “born-global” views (Knight & Cavusgil, 2004) state that knowledge contributes to firm internationalization. As knowledge is acquired, a firm is more likely to internationalize since uncertainty is reduced through acquisition of knowledge (Liesch & Knight, 1999). The “born-global” view suggests that prior knowledge of managers plays a key role in rapid internationalization (Knight & Cavusgil, 2004).

Knowledge embedded in human capital and skills that employees possess may make human capital the most important strategic asset of professional service firms. A firm’s human resources are enhanced by expanding across borders when the value of these intangible assets increase with the greater scope of internationalization, and human tacit knowledge and skills are transferable for the continued creation of service value. The high customization aspect of professional services makes human capital a critical resource in industries such as software development, management consulting, financial services, and information technology.

The resource-based view supports the view that a firm is able to leverage unique, valuable, and rare resources for a competitive advantage, and one such valuable resource is knowledge (Barney, 1991). Knowledge aids a firm in overcoming the liability of foreignness in new, foreign markets (Hymer, 1976). According to the process view of internationalization, a lack of knowledge and experience is the source of the firm's disadvantage relative to domestic firms in a foreign market (Grant, 1996). Thus, knowledge and experience possessed by a professional service firm's human capital allows knowledge-intensive firms to overcome disadvantages and leverage knowledge resources for profitable expansion. Human resources and the management of such resources improve profits, particularly in an emerging economy that is facing competitive pressures from globalization (Wei & Lau, 2008).

2.2.2 Professional Services Skills

Service customization capability is a function of the service provider's professional skills. A high degree of client interaction requires highly skilled professional service employees for service customization. Hence, a professional service SME's human capital enables service customization and innovation. A professional service SME's strategic activities should then facilitate the use of employee knowledge to fulfill customer service needs. In purely intangible services, human capital is a key strategic asset of professional service firms and increases in value as the level of tacit knowledge required to deliver the service increases. Therefore, new service products will only yield profits if the service delivery personnel possess the skills and capabilities to deliver the service product (Lusch, Vargo, & O'Brien, 2007). Furthermore, service-dominant logic (SDL) states that the capabilities of a firm's human resources to respond

to customers effectively or create new value-laden service products are a higher order operant resource capability that contributes to sustained and superior firm performance (Madhavaram & Hunt, 2008). In addition, the complexity of international service expansion and the cultural diversity in new international markets increases the required skills and competencies of a professional service firm's human capital.

2.3 *Internationalization Theories*

Several theories have been offered to explain internationalization. In this section, a brief review of internationalization theories is provided; then the discussion proceeds to a focused review of: (1) internationalization of *services*, (2) internationalization of *SMEs*, and lastly, (3) internationalization of *service SMEs*.

Several behavior theories of internationalization emerged in literature beginning with export literature as early as the 1960s and the development of behavioral stage models during the 1970s and 1980s (Cooper, Easingwood, Edgett, Kleinschmidt, & Storey, 1994). These models posit that a firm passes through incremental stages of internationalization. Among the internationalization theories, two models emerged as dominant theories: the International Product Life Cycle (IPLC) theory and the international stage theory, also known as the Uppsala model.

International Product Life Cycle (IPLC)

As one of the original theories of firm internationalization proposed, the International Product Life Cycle (IPLC) (Vernon, 1966, 1979) describes international expansion as a stage-like progression based upon innovation. According to the IPLC, a firm establishes a foreign location based upon the perception of an advantage, known as an innovation lead. Innovation is implemented in the domestic market as a means to

exploit a foreign market opportunity. Managers' myopic preoccupation with the home market and the presence of needed skills in the domestic market cause innovation to be initiated in the domestic market. The close proximity of domestic demand provides advantages that reinforce the home market as the favored location for innovation development. Foreign demand is initially serviced from the firm's domestic location.

As demand increases and transportation costs rise, the firm considers a foreign production location. The determining factor in the decision to establish a foreign production facility is a threat to the firm's domestic monopoly by a competitor that is able to undersell the original firm. In response, the original innovating firm establishes a foreign production facility to serve the foreign market and gains cost benefits which prolong the original firm's monopolistic advantage. In summary, the product life cycle process which begins with innovation and export, turns into investment abroad, then continues as the firm's network of a subsidiaries expand globally.

International Stage Theory

The second behavioral internationalization theory that has dominated literature is the international stage theory, also known as the Uppsala model or process theory of internationalization (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975). The Uppsala model describes internationalization as a behavioral process whereby a domestic firm moves through incremental and sequential stages of foreign involvement as a result of knowledge development and learning. Internationalization and increased commitments to international business is the result of uncertainty reduction through the acquisition of "experiential knowledge."

Internationalization stages begin with exporting and proceed to the final stage as a result of greater knowledge and increasing commitment to foreign direct investment. Thus, market knowledge affects the commitment of resources to foreign markets, and experience, or previously acquired knowledge, facilitates internationalization. The stage theory of internationalization involves four sequential stages: (1) no regular export activities, (2) export via independent representatives (agents), (3) establishment of a sales subsidiary, and (4) overseas production (Johanson & Vahlne, 1977, 1990). The theory has been subsequently modified to include: exporting, licensing, franchising, management contracts, joint ventures, and wholly owned subsidiaries (WOS).

These two behavioral stage models, the IPLC (Vernon, 1966) and the Upsalla Model (Johanson & Vahlne, 1977), are both criticized for the lack of attention to managerial strategic choices and a disregard for differences among firms (Bell, 1995). These international stage theories are further challenged by evidence of rapid firm internationalization, termed “born-globals,” which do not follow sequential stages over time (Calof & Beamish, 1995; Knight, Madsen, & Servais, 2004). Johanson and Vahlne (2003, p. 83) have recently made a statement agreeing that “the old models of incremental internationalization are no longer valid.” Johanson and Vahlne reconcile the two approaches to internationalization by stressing the role of knowledge or foreign market experience in contributing to firm internationalization.

Transactional Cost Approach Theory

From the economic perspective emerged the Transactional Cost Approach (TCA), which employs a micro-economic view (Williamson, 1985). According to TCA, internationalization results when a firm perceives a benefit after rational consideration of

the transactions costs associated with the global exchange of goods between a domestic and foreign location. When a firm's costs to adapt to the uncertainty in the foreign environment are low, a firm is more likely to allow external foreign governance, such as in a licensing arrangement where the domestic firm's offers a product/service via a foreign market firm. When costs of production associated with the foreign location exceed the benefits, a firm will prefer to internalize the function and the risk by retaining control over the international production of the product/service and incur greater internal control costs, such as establishing a foreign owned location. The Eclectic theory (Dunning, 1977) described hereafter is an extension of TCA theory.

Eclectic Theory

Eclectic theory, a synthesis of prior theoretical approaches, became a dominant view during the 1970s and 1980s (Andersen, 1993). According to eclectic theory, initiation of foreign production will depend upon the resource implications and attractions of the firm's home country compared to locating production in another country. The foundation of eclectic theory is a framework consisting of three firm factors which determine the structure of foreign direct investment (FDI). Dunning's eclectic theory framework proposes that the differences in firm performance are due to advantages attributable to ownership, location, and internalization, also referred to as the OLI framework (Dunning, 1977, 1989). Dunning's eclectic theory extended prior frameworks by incorporating resources. The factors integral to the OLI framework are briefly described below:

O - Ownership Advantages: Specific advantages that accrue to the firm through equity ownership, such as asset advantages (e.g., international experience, patents) or transaction cost minimizing advantages (e.g., economies of scale, and favored access to international markets).

L – Location Advantages: Specific advantages to a country which dictate the choice of a domestic or host country firm location. If a host country advantage is not present, exporting is the preferred method of internationalization.

I – Internalization: The determination as to whether foreign production advantages will be internalized or externalized. If a firm derives a greater benefit from an advantage when it is retained by the firm rather than sold or leased to a competitor, the firm should choose to control or internalize the advantage.

Although Eclectic Theory incorporates the influence of strategic decision-making, the theory received criticism for several reasons, including the focus of studies on MNEs (Dunning, 1988). Dunning has even noted that specific firm intangible advantages (e.g., brand image, product specialization, or international experience) may be more important for services due to their unique features (greater human element, differentiation, intangibility, and product specialization) (Dunning & Kundu, 1995).

Rapid international expansion of new ventures and small firms has challenged the assumptions that underlie the traditional process theories of internationalization, and prior theories have not considered entrepreneurial motivations and behavior or the different resource needs of smaller firms (Aaby & Slater, 1989; Chetty & Hamilton, 1993; Knight & Cavusgil, 2004; Shuman, 1986). Researchers have attempted to explain how smaller firms overcome resource poverty (Shuman & Seeger, 1986, p. 9) and new theories have been developed to address SMEs. A promising new theory of internationalization addresses this gap and is discussed next.

New Venture View of Internationalization

According to the new venture view of internationalization, firms internationalize early and expand rapidly as a result of entrepreneurial influences of the venture's management team (McDougall & Oviatt, 1996; McDougall, Covin, Robinson Jr., &

Herron, 1994). Similar to international stage theory, new venture theory recognizes knowledge resources as playing an important role in international expansion. The new venture view differs from stage theory in that experience, or knowledge, is acquired prior to firm inception. In contrast, stage theory indicates that knowledge is acquired with incremental stages of increasing international commitment. Therefore, a key difference between the international stage theory and new venture theory is when knowledge is acquired by the firm. International stage theory begins with a lack of knowledge in the beginning years of a firm. In contrast, new venture theory contends that prior knowledge and experience possessed by managers at the inception of the new venture permits accelerated internationalization. Thus, prior knowledge of international new ventures (INVs) is one factor contributing to a new venture advantage.

The fact that both the stage theory and new venture theory acknowledge the important role of knowledge resources is a point of commonality between these two dominant theories. Foreign market knowledge is central to process theory (Johanson & Vahlne, 1990), and new venture theory incorporates managerial experiences as influencing the ability to recognize opportunities and accelerate internationalization.

Resource-Based View of Internationalization

The resource-based view (RBV) (Barney, 1991; Barney, Wright, & Ketchen Jr., 2001) has emerged as a promising framework for explaining the internationalization of SMEs. According to the RBV, physical, human, and organizational assets are resources that can be used to implement value-creating strategies for a competitive advantage (Wernerfelt, 1995). Firm resources are comprised of assets, capabilities, processes, routines, and knowledge possessed by the venture (Covin, Slevin, & Covin, 1990).

The RBV has gained support as a result of the limitations of traditional stage theories (Barney, 1991). Stage models of internationalization have been criticized for not explaining the accelerated internationalization of smaller firms, such as knowledge-intensive SMEs. Evidence of small firms as being global at inception has resulted in the development of the “born-global” theory of the firm (Oviatt & McDougall, 1994; Knight & Cavusgil, 1996, 2004). In accordance with the RBV, Knight et al. (Knight, Madsen, & Servais, 2004) assert that firms possess unique firm resources and capabilities which explain rapid internationalization and the source of advantages gained by these firms. “Born-global” literature also emphasizes prior experience as contributing to rapid internationalization.

The RBV states that firm heterogeneity and firm specific resources create a sustainable competitive advantage and that advantage creating resources are valuable, rare, inimitable, and non-substitutable, referred to as the VRIN framework (Barney, 1991). Resources encompass three general categories: physical capital resources, human capital resources, and organizational capital resources. Physical capital resources encompass physical technology, property, plant, equipment, and access to raw materials. Human capital resources include the “training, experience, judgment, intelligence, relationships, and insight of individual managers and workers in a firm” (Barney, 1991, p. 101). Organizational capital resources involve the firm’s reporting structure, planning processes, control and coordination systems, and information relations among workers within the firm, between firms, and its environment.

According to the RBV, entrepreneurial managers are heterogeneous resources, and habitual entrepreneurship encourages dynamic capabilities which create new

resource configurations (Barney, Wright, & Ketchen Jr., 2001). As stated by Barney (Barney, 1991; 2001, p. 628), “Entrepreneurial alertness, entrepreneurial knowledge, and the ability to coordinate resources are resources in their own right.” The entrepreneur’s dynamic learning and resource configurations represent unique knowledge, cognitions, and learning, which enable value creation (Barney, Wright, & Ketchen Jr., 2001). The knowledge component of the RBV builds upon the key role of market knowledge held by the Uppsala model (Knight & Cavusgil, 2004).

Knowledge-Based View of Internationalization (KBV)

The knowledge-based view, an extension of the RBV, is the dominant theory used to explain internationalization of knowledge-intensive firms in dynamic environments characterized by highly competitive knowledge-intensive industries (Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004). The KBV asserts that knowledge is a key factor contributing to firm internationalization (Autio, Sapienza, & Almeida, 2000). The KBV agrees with traditional stage theory (Autio, Sapienza, & Almeida, 2000; Yli-Renko, Autio, & Sapienza, 2001) in that knowledge and learning are key factors contributing to firm internationalization, and firms are repositories of knowledge (Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004). In addition to acknowledging the central role of resources, the KBV also examines the process by which specific firm capabilities evolve and develop over time (Johanson & Vahlne, 1977). Research confirms that knowledge, an intangible firm resource, can create a competitive advantage on an international scale (Eisenhardt & Martin, 2000; Grant, 1996; Kogut & Zander, 1992; Teece & Pisano, 1994; Teece, Pisano, & Shuen, 1997).

2.3.1 *Internationalization of Services*

Research that examines service internationalization indicates that country specific advantages may influence service international expansion (Westhead, Wright, Ucbasaran, & Martin, 2001). According to Erramilli and Rao (Erramilli & Rao, 1990), service firms may internationalize for the following reasons: market-seeking, client-following, and resource-seeking. Research on service internationalization indicates that services typically are client-followers who are first entrants into foreign markets (Calof & Beamish, 1995; Erramilli & Rao, 1990; Terpstra & Chwo-Ming, 1988; UNCTAD, 2008). The lower costs of a service wholly-owned subsidiary (WOS) may facilitate client-following internationalization and economies of scale (Calof & Beamish, 1995; Terpstra & Chwo-Ming, 1988). Based upon findings, Calof and Beamish (Calof & Beamish, 1995) recommend examining specific industry effects in service categories.

A study of small computer service software firms by Bell (1995) found that high technology intensive firms did not follow a sequential progression through stages of internationalization. Bell concluded that client-following did offer an explanation of the behavior of these firms and that the ease of electronic distribution of the service product facilitates accelerated internationalization and creates an advantage. Bell suggests that many high technology service sectors exhibit similar rapid internationalization.

Erramilli and Rao (1990) contend that entering foreign markets to service the foreign subsidiaries of domestic clients is a primary reason for service internationalization. A study of early market entrants versus later entrants in the advertising industry indicated that client followers are first to enter markets, with market seekers following at a later date (Terpstra & Chwo-Ming, 1988). An interesting finding

by Erramilli and D'Souza (1995) indicates that service firms that follow their clients into international markets are significantly more aggressive, which also affects the choice of entry mode. Among smaller firms, an unsolicited export order has been the overwhelming determinant of export initiation (Weinstein, 1977). In support of a reactive view to internationalization, Bilkey and Tesar (1977) evidenced the progression of firms through export stages, beginning with the firms' lack of interest in exporting.

2.3.2 Internationalization of SMEs

There is insufficient knowledge on the internationalization of small firms (Bilkey & Tesar, 1977) since the typical unit of analysis has been large multinational firms (Westhead & Wright, 2001). The majority of prior research examining SMEs has been nonrandom case studies (Bilkey & Tesar, 1977; Boter & Holmquist, 1996; McDougall & Oviatt, 1996) with a focus on exporting of manufacturing firms (Coviello & McAuley, 1999).

SMEs face not only the same challenges as larger firms, but also potential deficiencies in resources not present in larger firms (Bilkey & Tesar, 1977; Westhead, Wright, & Ucbasaran, 2004). Barriers to SME internationalization are well documented (Leonidou & Katsikeas, 1996; Leonidou, Katsikeas, & Piercy, 1998; Leonidou, Katsikeas, & Samiee, 2002; Morgan & Katsikeas, 1997a). Barriers to SME internationalization include: (1) a lack of strategic resources, such as an experienced manager to oversee the international expansion process, (2) operational deficiencies, such as the ability to use the marketing mix to meet foreign market requirements, (3) informational related barriers, which entail limited intelligence generating capabilities,

and (4) process-based restrictions, or problems in the communication process needed to create and deliver the product (Shuman & Seeger, 1986).

Yet SMEs exhibit successful internationalization and at speeds greater than resource rich MNEs. Furthermore, the process of SME international is not systematic and is in direct contrast to the traditional stage process of internationalization (Morgan & Katsikeas, 1997b). Factors found to be the driving forces of SME internationalization that overcome barriers include: prior international experience, foreign travel, and the number of foreign languages spoken (Hutchinson, Quinn, & Alexander, 2006).

Research on SMEs increased in the early 1990s in an effort to understand the challenges and behavior of small firms. Several literature reviews of smaller firm internationalization have been conducted (Aaby & Slater, 1989; Coviello & McAuley, 1999; Fillis, 2001; Zou & Stan, 1998). A review of SME literature by Calof and Beamish (1995) finds consistent reporting of SME leapfrogging through internationalization stages, multiple strategies being pursued simultaneously, and evidence of both supporting and contradictory findings of SME internationalization via incremental stages. The authors concluded that one theoretical framework does not capture the complex SME internationalization process. Evidence of accelerated internationalization infers that prior theories do not explain the internationalization of small, knowledge-intensive, and service-intensive firms (Rialp, Rialp, & Knight, 2005).

Two distinct streams have emerged in literature to address SME internationalization (McDougall & Oviatt, 2000). One stream focuses on international new ventures that are international from inception; the second stream examines internationalization of established SMEs. Researchers in the first stream have examined

both the antecedents and consequences of internationalization (Autio, Sapienza, & Almeida, 2000; Zahra & Garvis, 2000). In the second stream, studies focus on SME export antecedents, the process of exporting, export performance, and the patterns of internationalization (Bell, 1995; Coviello, & McAuley, 1999).

A review of SME literature (Rialp, Rialp, & Knight, 2005) reveals that early internationalization of small firms is evidenced across the globe and is not country or industry specific, an observation also noted by Coviello and McAuley (1999). This view is echoed by Fillis (2001) in a review of SME literature. These authors note that early internationalization may be most similar to the knowledge-based view. Several researchers perceive “born-global” firms and international new ventures as entrepreneurial firms whose managers perceive the world as their marketplace from inception. In comparison to exporters, “born-global” firms and INVs generally are niche marketers.

A body of export literature exists upon which to gain knowledge of factors contributing to small firm internationalization. Several authors conclude that management significantly influences international activities (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975) by affecting the speed, mode, and direction of internationalization (Aaby & Slater, 1989; Chetty & Hamilton, 1993; Leonidou & Katsikeas, 1996; Zou & Stan, 1998). A review of export literature by Leonidou, Katsikeas, and Piercy (1998) finds that both objective and subjective managerial factors influence SME internationalization. Objective factors, such as education, experience, and foreign exposure, positively influence international expansion, with experience having a

strong effect. Subjective perceptions of opportunities and barriers, and managers' attitudes toward risk were also found to affect SME internationalization.

Research finds that in some cases, firm size (Holden, 1986) and resources affect the internationalization of small firms (Moen, 1999). Bilkey and Tesar (1977) found smaller firms were more likely to export as opposed to entering foreign markets in a manner that required greater investment. An examination of 164 Japanese SMEs in 19 industries by Lu and Beamish (2001) concluded that SMEs face a liability of foreignness when first entering international markets. However liabilities of foreignness are reduced through experience (Lu & Beamish, 2001).

However, size may not be an impediment to internationalization. Small firms are able to overcome their small size (Baird, Lyles, & Orris, 1994). According to Wolf and Pett (2000, 2007), there is no significant difference between small and large firm export intensity. In fact, prior studies indicate that small firms are: (1) less affected by adverse external changes than large firms, (2) able to adapt prices to currency fluctuations more quickly, (3) more flexible, and (4) willing to take on greater risk (Ali & Swiercz, 1991).

A study of SMEs by Calof and Beaish (1995) concluded that size was not a barrier to internationalization and that SMEs find unique ways to overcome smallness. Cavusgil (1984) found no significant relationship between firm size and the propensity to export. Westhead, Wright, Ucbasaran, and Martin (2001) argue that the ability to export is not a function of firm size and age but more importantly, entrepreneurial human capital and the internal resources of the firm. A review of small firm internationalization literature spanning several decades by Lu and Beamish (2001) notes that innovative thinking, creativity, opportunity recognition, and risk-taking positively influence firm

internationalization. As evidence of this observation, a study of 105 small U.S. manufacturing firms found that an entrepreneurial orientation focused the firm's efforts and significantly increased international growth in the number of customers, sales, and market share (Fillis, 2001). Wolf and Pett (2007) state that an entrepreneurial orientation aids in overcoming size barriers for international growth.

2.3.3 *Internationalization of Service SMEs*

Although the majority of research on SME internationalization has focused on the manufacturing industry, only a few studies have been conducted in services (Coviello & McAuley, 1999). Due to the strong evidence of accelerated internationalization within technology industries, Bell, McNaughton, Young, and Crick (2003) contend that early internationalizing firms can be categorized as either knowledge-intensive or service-intensive, both of which rely upon a more sophisticated knowledge base. A common theme is management's focus on a global orientation from inception which, according to Bell et al. (2003), is typical of highly specialized global market niche firms. Bell et al. (2003) reported that if firms were initially domestic, client-following behavior into foreign markets was pursued regardless of psychic distance. These authors also noted that knowledge-intensive firms were likely to internationalize faster if they are technological innovators as opposed to adopters. Thus proactive innovation enhances internationalization of knowledge-intensive firms.

This dissertation author's extensive review of international new venture literature finds that certain factors consistently appear to facilitate early internationalization, including: strong previous international experience, market knowledge, market commitment, unique intangible assets based on knowledge management, high value

creation from product differentiation, technological innovativeness, narrowly defined customer markets, a customer orientation, close customer relationships, and flexibility. A similar list of factors is also noted by Knight (1997) and McDougall, Oviatt, and Shrader (2003).

Bloodgood, Sapienza, & Almeida (1996) provide empirical evidence that small firm internationalization and sales growth is the result of innovation, product differentiation, and top manager experience; and that internationalization is higher in ventures emphasizing product differentiation strategies. These authors also note that industry specific conditions often drive the rate of internationalization (Bloodgood, Sapienza, & Almeida, 1996). Internationalization studies of small retail firms conclude that retail SMEs are successful at offering differentiated products since smaller retailers cannot compete directly with large firms on price (Hutchinson, Quinn, & Alexander, 2006; Hutchinson, Alexander, Quinn, & Doherty, 2007).

In a comprehensive national study of 2424 Swiss SMEs, Hollenstein noted a significant amount of international activities among high-tech and knowledge-intensive SME compared to other SMEs (Hollenstein, 2005). Results indicate that human capital and R&D resource advantages, which provided innovating capabilities, were the most important drivers of internationalization (Hollenstein, 2005). “Born-global” research also concurs. A study of 186 “born-global” firms in Denmark and 106 located in the U.S. attributes the success of “born-global” firms to leveraging intangible resources comprised of know-how, skills, and managers’ experiences of managers (Knight, Madsen, & Servais, 2004).

2.4 *Degree of Internationalization*

While studies examining the performance effects of internationalization in entrepreneurship literature are limited, international business and strategic management literature provide several studies regarding the performance implications of international diversification.

International expansion provides new market opportunities for a firm to sell its product innovations. Innovation encourages international diversification by enhancing the returns from expansion (Hitt, Hoskisson, & Ireland, 1994). International diversification may also reduce the risks associated with innovation since investments in R&D can be leveraged over a greater number of markets for a greater return (Hitt, Hoskisson, & Ireland, 1994; Hymer, 1960; Kim, Hwang, & Burgers, 1993). Successful returns from innovation also increase additional investments in R&D (Delios & Beamish, 1999; Fiengenbaum, Shaver, & Yeung, 1997). As firms grow, they may develop the ability to sustain innovation through efficient R&D (Schumpeter, 1961) since an increasing scope of markets promotes sales growth and exposure to greater opportunities for new ideas. As firms grow in size and mature over time, their larger size allows the firm to carry higher risks (Hitt, Hoskisson, & Ireland, 1994).

As multinational enterprises (MNEs) expanded beyond their borders in search of resources and additional market demand, suppliers and professional service firms that provided support services to these MNEs followed their clients into international markets to continue service relationships (Hutchinson, Alexander, Quinn, & Doherty, 2007). This trend in the internationalization of professional service firms, which often begins as client-following, often precedes international diversification (Gil, Nakos, Brouthers, &

Brouthers, 2006; Hitt, Bierman, Uhlenbruck, & Shimizu, 2006; Joynt & Welch, 1985; Westhead, Wright, Ucbasaran, & Martin, 2001). International diversification is “a strategy through which a firm expands the sales of its goods or services across the borders of global regions and countries into different geographic locations or markets” (Westhead, Wright, Ucbasaran, & Martin, 2001, p. 251).

Motives for internationalization include “economies of scale, access to new resources, cost reduction, extension of innovative capabilities, knowledge acquisition, location advantages, and performance improvements...” as well as “new means for value creation through access to foreign stakeholders, resources, and institutions” (Hitt, Hoskisson, & Kim, 1997, p. 834). According to Hitt et al. (Hitt, Tihanyi, Miller, & Connelly, 2006), international diversification provides opportunities for firm growth and access to a greater variety of resources for improved innovation.

Firms with a greater international scope are higher performers (Hitt, Hoskisson, & Kim, 1997; Hitt, Tihanyi, Miller, & Connelly, 2006). However, a greater scale and scope of firm presence in markets, when coupled with an accelerated speed of expansion, places high demands on a firm’s information capabilities (Hitt, Hoskisson, & Ireland, 1994). According to these authors, excessive scope or product expansion competes with firm resources and managerial attention by focusing attention on costs instead of innovation; thereby redirecting a firm’s strategic emphasis. Having built upon the work of Hymer (1960) and Vernon (1966), international business scholars have contributed a great deal to our understanding of the consequences of international diversification (Ghoshal, 1987; Leontiades, 1986; Prahalad & Doz, 1989).

A brief review of international diversification literature completed by Hitt, Tihanyi, Miller, and Connelly (2006) is provided in Table IV.

Table IV. Literature Review of International Diversification

Year	Author(s)	International Diversity Measure	Sample	Key Findings
2004	Lu & Beamish	Foreign subsidiary, number of countries entered	1,489 Japanese firms, 1986-1997	There is an S-shaped relationship between international diversification and performance. Firms investing in intangible assets achieve greater gains from international diversification.
2004	Thomas & Eden	FSTS, FATA, country scope	151 U.S. manufacturing firms, 1990-1994	Three-stage sigmoid relationship between ID and performance.
2003	Capar & Kotabe	FSTS	81 German firms, 1997-1999	U-shaped curvilinear relationship between international diversification and performance of service firms.
2003	Contractor, Kundu, & Hsu	FSTS, FETE, FOTO	103 service firms, 1983-1988	Sigmoid (S-shaped) relationship exists between ID and performance in knowledge-based service firms.
2003	Ruigrok & Wagner	FSTS	84 German manufacturing companies, 1993-1997	U-shaped relationship between international diversification and financial performance.
2002	Denis, Denis, & Yost	FSTS	7,520 U.S. firms, 1984-1997	International diversification is positively associated with valuation discounts. Firms that decrease international diversification experience increase in excess value.
2002	Qan & Li	FSTS, entropy measure	125 large industrial U.S. firms, 1983-1992	Curvilinear relationship between ID and profitability.
2002	Riahi-Belkaoui	FPTP, FSTS	3,972 firm-quarter observations, 1990-1999	ID is negatively related to post-earnings-announcement drift.
2002	Riahi-Belkaoui & Alnajjar	FSTS, FPTP, FATA	878 firm-year observations, U.S. firms, 1990-1999	ID is negatively related to earnings persistence.
2001	Lu & Beamish	No. of countries, no. of 10% equity FDI	164 Japanese small and medium-size firms, 1986-1997	There is a U-shaped relationship between international diversification and firm performance. Exporting negatively moderates this relationship.
2001	Ramirez-Aleson & Espitia-Escuer	FSTS, FATA, No. of countries entered	570 U.S. manufacturing firms, 1990-1995	There is an inverted-U-shaped relationship between international diversification and operating performance, also between international diversification and financial performance.

Year	Author(s)	International Diversity Measure	Sample	Key Findings
1998	Riahi-Belkaoui	FSTS	100 U.S. manufacturing and service firms, 1987-1993	There is an S-shaped relationship between ID and firm performance.
1997	Hitt, Hoskisson, & Kim	Entropy, by 4 primary foreign markets	295 U.S. manufacturing firms, 1988-1990	There is an inverted-U-shaped relationship between international diversification and performance. Product diversification moderates this relationship.

Source: (Hitt, Tihanyi, Miller, & Connelly, 2006)

A firm's degree of internationalization has been conceptualized in prior empirical research using various terminology, such as export intensity, international business intensity, internationalization, scale and scope of internationalization, international diversity, geographic diversity, and degree of internationalization (Cavusgil & Zou, 1994; George, Wiklund, & Zahra, 2005; Lu & Beamish, 2001, 2004; Pla-Barber & Escriba-Esteve, 2006; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Sullivan, 1994; Zahra & Garvis, 2000; Zahra, Ireland, & Hitt, 2000).

In studies examining international diversification, researchers have measured a firm's degree of internationalization using several approaches. Early research has mainly focused on the scale of internationalization. The most common measures proxies of a firm's degree of internationalization (DOI) include: (1) foreign sales as a percentage of total sales (FSTS), (2) foreign assets as a percentage of total assets (FATA), and (3) the number of foreign subsidiaries or overseas subsidiaries as a percentage of total subsidiaries (OSTS).

FSTS captures the relative contribution of foreign revenue generating activities and is the most common measure of a firm's degree of internationalization (Delios & Beamish, 1999; George, Wiklund, & Zahra, 2005; Lu & Beamish, 2001, 2004; Pla-

Barber & Escriba-Esteve, 2006; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Zahra, Neubaum, & Huse, 1997). Other measures include: the ratio of foreign employees to total employees (FETE) (Wiersema & Bowen, 2008), the percentage of profits attributable to international business (Autio, Sapienza, & Almeida, 2000; Preece, Miles, & Baetz, 1999), and the number of foreign countries to which the firm exports its products (Cavusgil & Zou, 1994; Delios & Beamish, 1999; George, Wiklund, & Zahra, 2005; Lu & Beamish, 2001, 2004; Pla-Barber & Escriba-Esteve, 2006; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Zahra, Neubaum, & Huse, 1997).

A review of studies that examine internationalization and firm performance yields mixed results. In the international business and strategy literature, internationalization is reported as providing greater monetary benefits as well as managerial costs (Lu & Beamish, 2004). Benefits of global expansion encompass economies of scale, reduction of risk due to shifting of operations and sourcing to more advantageous market regions, and greater market power as an international firm (Tallman & Li, 1996). Some researchers contend that international diversification provides greater benefits than costs, and therefore has a positive impact on performance (Hitt, Hoskisson, & Ireland, 1994; Hitt, Hoskisson, & Kim, 1997).

Alternatively, the negative effects of internationalization include: greater transactions costs from managing a greater number of facilities in multiple markets across large geographic distances, a liability of newness, a liability of foreignness, and cultural adaptation to psychically different markets (Delios & Beamish, 1999). In the case of internationalization into culturally dissimilar markets where market demand does not

permit economies of scale, increased geographic expansion incurs greater financial costs which erode revenues.

Critical reviews of the measurement of the degree of internationalization provide insight into mixed empirical findings and have spurred further research (Hitt, Hoskisson, & Kim, 1997; Hitt, Tihanyi, Miller, & Connelly, 2006; Lu & Beamish, 2001). Sullivan (1994) has argued that single measures of diversification do not fully capture the heterogeneity of internationalization, and therefore, a multiple item measure should be used. Historically, the choice of a measure is often a function of the availability of data, particularly with SMEs which are often privately owned and are not required to publicly disclose financial information.

Hitt et al. (Hitt, Tihanyi, Miller & Connelly, 2006, p. 857) caution that measures should not “blur the distinction between international diversification and its outcomes” and recommend that the measure be chosen to capture the theoretical objective of the underlying study so as to maximize content validity. More recently, studies have focused on differentiating between measures which describe the firm’s speed, scale, and scope of internationalization as antecedents to financial performance (Cavusgil & Zou, 1994; Kumar & Singh, 2008; Lu & Beamish, 2001; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Tseng, Tansuhaj, Hallagan, & McCullough, 2007). Alternate measures of the degree of internationalization, such as the geographic scope of foreign expansion, have also been used and operationalized as the number of: (1) foreign nations, (2) geographic regions, (3) foreign offices/operations, or (4) foreign employees per office (Hitt, Bierman, Uhlenbruck, & Shimizu, 2003; Hitt, Tihanyi, Miller, & Connelly, 2006). Measures of foreign sales revenue growth (Kumar & Singh, 2008; Tseng, Tansuhaj,

Hallagan, & McCullough, 2007) and the change in the percentage of international sales as a percentage of total sales describe the speed or how rapid a firm internationalizes (Autio, Sapienza, & Almeida 2000; Kumar & Singh, 2008; Moreno & Casillas, 2008; Oviatt & McDougall, 2005; Wagner, 2004; Zhou 2007).

The effects of firm internationalization has differed across industries, firm sizes, and strategic orientations due to varying firm investments in tangible versus intangible resources and differing firm capabilities in leveraging resources, the latter point put forth by the RBV (Barney, 1991). Mixed findings of the effect of internationalization across industries have been due to varied uses of international diversification measures and differing time periods (Hitt, Tihanyi, Miller, & Connelly, 2006). As a result of over a decade of inconsistent findings, researchers now conclude that the relationship is more complex than originally postulated (Hitt, Tihanyi, Miller, & Connelly, 2006). However, researchers agree overall that international diversification provides efficiencies which improve performance (Hitt, Tihanyi, Miller, & Connelly, 2006). Furthermore, differences in internationalization among services are also expected due to service characteristics (Patterson & Cicic, 1995). Kotabe, Srinivasan, and Aulakh (2002) have concluded that internationalization is dependent upon several firm factors including internal resources. These findings have strong implications for a professional service firm's intangible human capital resources and their capability to customize and adapt service products for expansion into new foreign markets.

2.5 *Innovation*

Innovation, as it relates to products and firm expansion into foreign markets, is grounded in the international product life cycle theory (Vernon, 1966) since new products

with superior characteristics influence success in new markets. A review of key innovation literature advancements is provided in Table V and Table VI. Insights from prior research will be discussed throughout this review of innovation and in the subsequent section of the research model and hypotheses development.

According to Brown and Eisenhardt (1995), a review of literature on innovations reveals two main research streams. The first stream focuses on the diffusion of innovations across nations, industries, and organizations. This stream is not the focus of this dissertation study.

The second stream, based upon an economic perspective, is grounded in Schumpeterian theory (1950). This second stream examines innovation of the firm as the influence of the organization and its people on the development and marketing of new products. Schumpeterian theory of the business enterprise discusses the role of innovation as a contradiction of a perfectly competitive market. According to Schumpeter (1950), innovation permits a firm to earn profits from imperfections in the market, which supports a firm's continued investments in innovation.

Upon completion of a meta-analysis of the determinants and moderators of organizational innovation, Damanpour (1991) concluded: (1) the field of innovation is quite broad, (2) studies of innovation in various contexts provide conflicting results since the distinctions between innovation and innovativeness, product and service contexts, and various cultures have not been clearly addressed, and (3) there is no significant research which differentiates between the various forms of innovation (e.g., process, product, etc.). As a result, attention was drawn to the lack of clarity in innovation research in the 1990s.

Over the last decade, researchers have begun to differentiate between a firm's innovativeness and the capacity to innovate as being two distinctly different concepts: the first being an orientation, and the latter a behavioral outcome. As a result, research has made progress toward understanding the antecedents and consequences of innovativeness. In an effort to provide greater clarity, Damanpour offers the following definition (1991):

The adoption of innovations is conceived to encompass the generation, development, and implementation of new ideas or behaviors. An innovation can be a new product or service, a new production process technology, a new structure or administrative system, or a new plan or program pertaining to organizational members. (p. 556)

Innovativeness refers to the firm's "propensity" to innovate or develop new products (Kotabe, Srinivasan, & Aulakh, 2002). Alternatively, innovation or innovativeness capacity is the firm's ability to introduce a new process, product, or idea (Damanpour, 1991; Hurley & Hult, 1998). Innovativeness is different from the capacity to innovate (Hult, Snow, & Kandemir, 2003). Innovativeness refers to the firm's cultural orientation or beliefs toward innovation. Innovation is the outcome of innovativeness that pertains to the ability of the organization to develop new products and processes (Cohen & Levinthal, 1990). It is the latter, the capacity to innovate, that directly influences firm performance. It is important to also note that management literature has also recently focused on the differentiation between innovative efforts and innovative output (Ahuja, Lampert, & Tandon, 2008).

Hitt et al. (Hitt, Hoskisson, & Kim, 1997) and Porter (1990) suggest that innovation plays an important role in establishing superior performance in international markets. Innovation provides first mover advantages since innovative firms are able to

pre-empt competitors with new or improved products and expand the firm's scope (Hult, Hurley, & Knight, 2004). According to Porter, the fundamental source of competitive advantage is innovation (Porter, 1990). Peter Drucker also attributes industry leadership to innovation (Drucker, 2002). Thus, innovation is important for firms competing in international markets and is expected to influence firm internationalization. Key insights regarding the influence of innovation and internationalization are discussed next and followed by a literature review in Table V.

Becoming involved in international markets is viewed as innovative behavior by management (Kotabe & Murray, 1990; Kotabe, Murray, & Javalgi, 1998). Management's perceived new product relative advantage to competitors is a significant predictor of foreign sales intensity (Qian & Li, 2003). A study of 275 Australian exporting firms by Atuahene-Gima (1995b) found that a product advantage relative to competitors' products was a determinant of the propensity to export. Cavusgil (1984) also noted that product adaptation was a key factor that differentiated exporting firms according to their degree of internationalization. A study of U.S. and Korean exporters found product adaptation to be the strongest factor to influence export profitability and performance (Cavusgil, Shaoming, & Naidu, 1993). These findings also confirm initial research on innovation which indicates that innovative product features are predictors of export intensity and performance (Kleinschmide & Cooper, 1988). Product uniqueness is a significant contributor to export success (Barkema & Vermeulen, 1998). A review of literature which examines the influence of innovation on firm internationalization is provided in Table V.

Table V. Innovation – Internationalization Literature Review

Author(s)	Sample	Key Construct	Key Findings
Calantone, Cavusgil, Schmidt, & Shin (2004)	239 U.S. and 302 South Korean Exporters	International Product Adaptation	<ol style="list-style-type: none"> 1. Confirmed positive effect of product adaptation on export profitability and performance. 2. Product adaptation was the strongest factor to influence export profitability and performance in comparison to marketing practices, relevant business experience, and similarity of laws and regulations.
Bell, Crick, & Young (2004)	Qualitative study of 30 U.K. SMEs (15 Knowledge-Intensive and 15 Traditional Firms) * Knowledge-intensive defined as having a high added value of scientific knowledge embedded in both product and process.	Innovation & International Expansion	<ol style="list-style-type: none"> 1. New product development was a prerequisite to internationalization. 2. Investment in process technology encouraged internationalization to recoup costs. 3. Global vision from inception was prevalent in knowledge-intensive firms; traditional firms had a domestic orientation and were less aggressive. 4. New product development (NPD) for knowledge-intensive firms focused on international markets; traditional firms emphasized domestic NPD first with adaptation to overseas markets second. 5. Knowledge-intensive SMEs proactively sought international opportunities. Traditional firm internationalization was typically incremental and responsive. 6. Knowledge-intensive SMEs targeted “lead” markets and expansion was structured; while traditional SMEs entered geographically close countries and expansion was ad hoc.
Qian & Li (2003)	67 Entrepreneurial Firms in Biotechnical Industry	Innovation Strategy	<ol style="list-style-type: none"> 1. Innovative strategy significantly improved international performance. 2. R&D investments provide innovation benefits for superior profits and maintained first mover advantages. 3. Success of biotech firms attributed to employee innovativeness and firm size.
Kotabe, Srinivasan, & Aulakh (2002)	Longitudinal analysis of 49 U.S. firms from 12 industries over a 7 year period	Innovativeness as Marketing Intensity and R&D Intensity	<ol style="list-style-type: none"> 1. Marketing innovation moderates the relationship between a firm’s multi-nationality and performance. 2. Marketing innovation measured as R&D intensity and marketing intensity.

Author(s)	Sample	Key Construct	Key Findings
Kotabe, Murray, & Javalgi (1998)	180 U.S. Fortune 500 Firms	Innovativeness of Core Services; Innovativeness of Supplementary Services	<ol style="list-style-type: none"> Innovativeness of core and supplementary services are positively related to market performance; innovativeness of supplementary services is positively related to quality. External availability of core services impacted foreign sourcing of supplementary services. Provides supports that core services must be augmented by innovativeness of supplementary services
Bloodgood, Sapienza, & Almeida (1996)	61 New High-Potential U.S. Ventures *High Potential defined as possessing venture capital backing.	Innovation	<ol style="list-style-type: none"> Innovation measured as R&D as a percent of total expenses. Internationalization is higher for firms that emphasize <i>product</i> differentiation and lower for firms emphasizing <i>market</i> differentiation. Effect of innovation on internationalization not supported. Low cost, product differentiation, and size were positively related to sales growth Innovation positively related to sales growth (marginally significant). Innovation had a significant negative effect on income. Higher levels of internationalization positively related to income but not significantly related to sales growth.
Leonidou & Katsikeas (1996)	Literature Review of Export Models and Empirical Studies	Product Uniqueness and Differential Advantages	<ol style="list-style-type: none"> Exporting is most common foreign market entry mode for SMEs due to minimal resource investment, low risk, and flexibility. Differential advantages vary significantly across export stages with product uniqueness highly correlated in more advanced stages.
Oviatt & McDougall (1995)	In-Depth Case Study Examination of 11 Global Start-Ups	Innovation and Global Expansion	<ol style="list-style-type: none"> Global vision of Internationalization at inception. Strong international experience of managers/owners. Use of unique, innovative products/services with a clear advantage to enter existing marketplace. Continued incremental innovation to sustain advantage. Global expansion using innovation strategy. Use of innovation to overcome resource and experience limitations of smaller firm.

Author(s)	Sample	Key Construct	Key Findings
Atuahene-Gima (1995)	275 Australian Firms	Innovation measured as Product Advantage	1. Unique contribution of new product factors, such as the relative product advantage, was a significant positive determinant of the propensity to export.
Cavusgil & Zou (1994)	202 Manufacturing Export Firms located in the Midwestern U.S. Region	Product Adaptation and Product Uniqueness	1. Export performance is strongly influenced by product adaptation and international competence; the latter measured via international market experience. 2. A high degree of product adaptation occurs when the product is unique, new, and culturally specific, or the firm is internationally competent.
Hitt, Hoskisson, & Ireland (1994)	Conceptual	Innovation	1. Innovation (product and process) moderates the international diversification -performance relationship by permitting the firm to gain financial benefits from diversification. Thus, innovation is a consequence of global expansion. 2. Innovation improves performance in internationally diversified firms via promoting a competitive advantage.
Samiee, Walters, & DuBois (1993)	133 U.S. Exporters	Exporting as Innovative Behavior	1. Offers greater clarity of management initiated exporting by classify exporters into “export innovators” (internally-induced exporters) and externally induced exporters. 2. Significant differences exist in the two groups: export innovators consider their export activities to be regular, on-going business, and the firm derives a significantly greater amount of revenues from export markets.
Porter (1990)	Conceptual	Innovation	1. A nation’s competitiveness depends on its ability to innovate and a competitive advantage in international markets is gained through innovation. 2. Innovation overcomes local disadvantages and is preferred over outsourcing in order to protect an advantage.

Author(s)	Sample	Key Construct	Key Findings
Kotabe & Murray (1990)	71 Multinational Firms Operating in the U.S. (43 European and 28 Japanese)	Product and Process Innovations	<ol style="list-style-type: none"> 1. Examined global sourcing strategies and the innovation-sourcing link. Major product and process innovations were introduced immediately in the domestic U.S. market only. Minor innovations were first introduced in U.S. market with foreign markets shortly thereafter. Lag time between innovation and introduction were negatively related to magnitude of innovations. 2. Products originally introduced in European and Japanese home markets then introduced in the U.S. 3. Uncoupling - Innovation location was not contained to the manufacturing location.
Kleinschmidt & Cooper (1988)	203 Industrial New Products in 125 Firms	International Orientation & Product Innovation	<ol style="list-style-type: none"> 1. Products developed for international markets had a higher level of associated market research and innovation process activities were shifted to foreign markets. 2. Developing international products for global markets yielded superior new products results on all performance measures.
Ghoshal (1987)	N/A - Conceptual	Innovation	<ol style="list-style-type: none"> 1. A firm must develop learning capabilities to innovate. 2. Innovation, learning, and adaptation provide scale benefits which create a competitive advantage. 3. A firm expands abroad to exploit technology, brand name or management capabilities. 4. Scale economies create learning effects which result in cost savings for improved performance. 5. Scope economies may result from externalizing functions to local markets that are too costly to internalize or the firm is unable to develop a competence in the function.
McGuinness & Little (1981)	152 Industrial Manufacturers in Ontario & Quebec.	Product Relative Advantage	<ol style="list-style-type: none"> 1. Managers' perception of a relative advantage was a significant predictor of foreign sales intensity.
Vernon (1966)	Conceptual	Innovation within the Product Life Cycle Theory	<ol style="list-style-type: none"> 1. IPLC theory states that innovation in a firm's domestic market and threat to the firm's monopolistic advantage leads to foreign location expansion.

Research also documents that innovation has a positive effect on firm performance. Cooper and Kleinshmidt (1987) originally noted in a study of 308 products successes and failures the positive relationship between innovation and performance. The study revealed that the key factor contributing to new product performance success is a product's advantage. A product advantage captures innovation as the consumers' perception of the product being the first of its kind to the market. A diverse industry study of a 275 Australian firms also confirmed the importance of a new product advantage as having a positive significant effect on new product performance and profitability of the firm in other areas (Atuahene-Gima, 1995b).

Within marketing literature, innovativeness has also been confirmed as a key determinant of performance among Japanese firms (Deshpande, Farley, & Webster Jr., 1993). Another study of 393 marketing executives also found a direct relationship between the innovation characteristics of the product and innovation performance (Gatignon & Xuereb, 1997). Findings indicate that the greater the product radicalness, the greater the product advantage; which, in turn, improved performance.

Within service sectors, the performance benefits of service innovation have been observed for decades. An examination of financial, management, transportation, and communication services found service innovativeness to be a key factor of competitive performance success (de Brentani, 1989, 1991). The positive link between innovation and performance has also been confirmed in several studies (Damanpour, Szabat, & Evan, 1989; Khan & Manopichetwattana, 1989).

In response to growing concerns that service firms differ in their means of new service development and innovation, several studies were undertaken by Atuahene-Gima

to closely examine service innovation (Atuahene-Gima, 1995b, 1996a, b; Atuahene-Gima & Ko, 2001; Atuahene-Gima & Li, 2002; Atuahene-Gima, Li, & De Luca, 2006; Atuahene-Gima & Murray, 2004; Atuahene-Gima, Slater, & Olson, 2005). An in-depth comparison of 300 service versus 300 manufacturing firms determined that both service and manufacturing firms focus on similar factors to improve innovation performance; however, the relative importance of these factors differ by firm type. A subsequent study not only confirmed the positive the effect of service innovation on performance, but also highlighted the importance of human capital skills for service innovation and improved performance (Atuahene-Gima, 1996a). Specifically, the study found that in contrast to manufacturing firms, a service firm's marketing synergy had a strong and significant positive effect on new service performance. Marketing synergy was defined as the fit between: (1) the service and the sales force, promotion, distribution, and delivery systems resources, and (2) the skills of the existing customer service resources and the systems of the firm. The author specifically noted the importance of innovation activity in the firm's human resource strategy.

With continued research advancements, researchers across multiple literature streams confirm the role of innovation as a mediator of the effect of firm cultures on performance. By the year 2002, researchers consistently reported findings that innovativeness was a key factor contributing to increased performance (Calantone, Cavusgil, & Zhao, 2002). To date, innovation continues to be a focus of research.

More recently in extensive research undertakings to gain advancements toward understanding the effects of firm cultures on performance, several studies provide insight into firm innovation. Hult, Snow, and Kandemir (2003) conducted a study of 764 old,

young, large, and small firms to determine the effects of 9 various combinations of firm orientations on performance. The authors concluded that regardless of the size and age of the firm, results from tests of 9 various modeled relationships consistently found a positive direct effect of innovativeness on performance for any combination of firm characteristics.

However, the effects of innovation on smaller firms in international contexts have shown mixed results. A study of 61 U.S. new ventures found conflicting findings regarding the impact of innovation on firm performance (Bloodgood, Sapienza, & Almeida, 1996). Results indicate that innovation was positively related to sales growth yet had a negative effect on income. However, since the study utilized R&D as a measurement of innovation, the effects of R&D on performance may be delayed until the expenses attributable to investments in R&D are recouped. Thus, the use of R&D as a measure of innovation may explain some negative findings of the effect of innovation on performance in studies.

The effect of innovation on performance with increased market expansion may be due to the intangible characteristics of service assets. Lu and Beamish (2004) contend that intangible firm assets can be exploited to provide scale and scope economies for abnormally high performance returns. These authors explain that the flexibility and innovativeness of intangible resources provide higher adaptation across multiple markets and minimize process related costs that typically reduce performance with global expansion.

A summary of research findings of the influence of innovation on performance is provided in Table VI.

Table VI. Innovation – Performance Literature Review

Author(s)	Sample	Key Construct	Key Findings
Luk, Yau, Sin, Tse, Chow, & Lee (2008)	189 Chinese Manufacturing Firms & 203 Hong Kong Manufacturing Firms	Organizational Innovativeness defined by (1) Administrative innovativeness & (2) Product-related Innovativeness	<ol style="list-style-type: none"> 1. Administrative innovativeness defined as change in organizational structure, administrative processes, and strategic goals. Product innovativeness described as encouraging new, improved products. 2. Significant findings for positive effect of administrative innovativeness on performance for Chinese firms in transition economy and nonsignificant findings for product innovativeness. In contrast, stronger findings of positive effect of product innovativeness on performance of market focused Hong Kong firms in market economy. However, positive effect of product innovativeness on performance for Chinese firms was also confirmed.
Szymanski, Kroff, & Troy (2007)	Meta-Analysis of 32 studies	Innovativeness	<ol style="list-style-type: none"> 1. 95 Correlations Identified. General agreement on the definition of innovativeness yet differences in measurement and contexts increases ambiguity of research results. 2. Performance estimates are higher when innovativeness includes a component that is meaningful to the consumer, such as the measure of product advantage. 3. Innovativeness may be a component of product advantage. Product advantage may overstate results since the measure contains a positive bias as being a more successful measure. 4. Confirmed statistically significant difference between goods versus service innovativeness. 5. Innovations that are new-to-the-market exhibit stronger positive performance effects than products that are new-to-the firm. 6. Innovativeness effects are becoming less substantial as researchers improve the measurement of innovativeness.

Author(s)	Sample	Key Construct	Key Findings
Walker, Damanpour, & Avellaneda (2007)	Longitudinal study of English Public Services	Service, Process, and Administrative Innovation.	<ol style="list-style-type: none"> 1. Three types of innovation examined: service, process, and administrative (and total combined). 2. Focusing on a specific type of innovation over time has a negative impact on performance.
Cainelli, Evangelista, & Savona (2006)	Longitudinal Study of Services in Italy	Service Innovation and Process Innovation	<ol style="list-style-type: none"> 1. Distinction made between product and process innovation in services and prior economic performance found to significantly affects process innovations. 2. Performance measures: average annual sales growth rate and average sales per employee. 3. Best performing firms introduced innovations. 4. Wide industry differences in propensity to innovate with computer software, R&D, engineering, and technical consultancy reporting a higher number of service innovations. 5. Prior performance affects propensity of services innovations and amount of resources devoted to innovation. 6. Innovation is a key factor affecting economic performance and innovations activities positively impacted productivity levels for three subsequent years.
Nijssen, Hillebrand, Vermeulen, & Kemp (2006)	217 service and 105 product SMEs in The Netherlands	Propensity for Innovation, Radicalness, R&D Strength	<ol style="list-style-type: none"> 1. Comparison of NPD versus NSD. 2. Propensity for innovation positively influences radicalness in both products and services. 3. Level of radicalness of innovations is positively influenced by R&D strength with the effect more pronounced for services. 4. Confirmed a positive relationship between radicalness and both service and product financial performance with a stronger effect for services.

Author(s)	Sample	Key Construct	Key Findings
Calantone, Chan, & Cui (2006)	451 firms in the Chemical, Biochemical, and Pharmaceutical Industries in North America.	Product Innovativeness and Product Advantage	<ol style="list-style-type: none"> 1. Product innovativeness did not have a direct effect on product profitability, but was found to have a significant indirect effect through product advantage and customer familiarity. 2. Product advantage had a significant effect on new product financial profitability.
Hult, Hurley, & Knight (2004)	181 Firms from Dun & Bradstreet Information Services with annual U.S. Sales >\$100 million	Entrepreneurial Orientation, and Innovativeness	<ol style="list-style-type: none"> 1. Innovativeness confirmed as a predictor of business performance. 2. Innovativeness was a significant predictor in a split group analysis of high versus low market turbulence groups. 3. Innovativeness mediates the relationship of entrepreneurial, market, and learning orientations on performance; thus, emphasizes the need for an innovative culture. 4. Authors conclude that entrepreneurial orientation is a key driver of innovativeness and performance.
Agarwal, Erramilli, & Dev (2003)	201 International Hotels	Innovation	<ol style="list-style-type: none"> 1. Innovation partially mediated the relationship between market orientation and performance. 2. Market orientation spurs innovation.
Henard & Szymanski (2001)	Meta-Analysis of 41 Studies of New Product Performance Literature	Product Advantage, and Product Innovativeness	<ol style="list-style-type: none"> 1. 24 Antecedents identified and 4 typologies created: Product Characteristics, Firm Strategy Characteristics, Firm Process Characteristics, and Marketplace Characteristics. 2. Results vary by measurement and contextual factors. Service vs. goods, high vs. low technology, and geographic regions explain variance in predictor-performance relationships. 3. Product advantage, R&D, and resources were generalizable across all studies and key drivers of new product performance. Product advantage was the most dominant driver of new product performance. 4. Innovativeness was not generalizable across studies.

Author(s)	Sample	Key Construct	Key Findings
Li & Atuahene-Gima (2001)	184 New Technology Ventures in China	Product Innovation Strategy	1. Product innovation strategy positively impacted performance measured as ROI, return on sales, profit growth, ROA, overall efficiency of operations, sales growth, market share growth, cash flow, and firm reputation.
Matear, Osborne, Garrett, & Gray (2001)	231 New Zealand Service Firms	Innovation	1. Innovation was assessed using new service development activities (Johne and Storey 1998). 2. Innovation has a positive significant impact on performance. 3. Market orientation is an antecedent to innovation.
Chandy & Tellis (2000)	64 innovations from 49 product categories of consumer durables and office products with more than one million units in sales	Radical Innovation	1. Radical defined as whether a new product (1) incorporates substantially different core technology, and (2) provides substantially higher customer benefits relative to the prior product. 2. 62% of innovations are by U.S. firms; however Western European nations have lost ground in recent years to Japanese firms. 3. Small and medium firms account for the majority of the U.S. innovations. Non-U.S. innovations in all firm sizes are in equal proportions. 4. Prior U.S. innovations came from smaller firms and non-incumbents. Recently, large firms and incumbents are significantly more likely to introduce radical innovations than small firms and non-incumbents.
Zahra, Ireland, & Hitt (2000)	321 International New Ventures from 12 Industries, age 6 years or less	Technological Learning	1. Technological learning defined by 19 items as “technological innovation activities” covering new products/processes including: designing new products, prototyping, testing, timing of new introductions, sequencing new introductions, customizing, manufacturing, sourcing technology, integrating technology, R&D (organizing, staffing, spending, managing), etc. 2. Technological learning positively associated with new venture performance.

Author(s)	Sample	Key Construct	Key Findings
Han, Kim, & Srivastava (1998)	134 Midwestern Banks	Technological Innovation and Administrative Innovation	<ol style="list-style-type: none"> 1. Innovations measured by absolute number of innovations in a variety of categories. 2. Both technical and administrative innovations were significant and positive predictors of performance. 3. A positive synergistic relationship was found between technical and administrative innovations.
Gatignon & Xuereb (1997)	393 Firms from a Broad Cross-section of Industries	Product Advantage, and Product Radicalness	<ol style="list-style-type: none"> 1. Both product advantage and radicalness (product innovation characteristics) were directly and indirectly related to performance (ROE, and objective measures). 2. The more dissimilar an innovation from its competitors, the greater the product advantage.
Atuahene-Gima (1996a)	600 Australian firms comprised of 300 Services and 300 Manufacturing	Newness of Innovation to Customers; Importance of Innovation to HR Strategy; Service/Product Innovation Advantage	<ol style="list-style-type: none"> 1. Newness of innovation had a significant negative impact on customers for services, but was not significant for products. 2. Importance of innovation activity in human resource strategy had a significant impact and was stronger for services than for products. 3. Product innovation advantage had a significant positive impact on performance; beta for new products was twice the beta for service performance.
Atuahene-Gima (1996b)	117 service and 158 manufacturing firms in Australia	Service Innovation, Product Advantage, and Product	<ol style="list-style-type: none"> 1. For service, product, and combined sample, product advantage was found to be a major determinant of market success. 2. Product newness to customer was negatively related to market success.
Atuahene-Gima (1995)	275 Australian firms; 119 Radical	Product Newness to Customers	<ol style="list-style-type: none"> 1. Product advantage is important to consumers for new project performance in both the radical and incremental (moderate) innovativeness groups.

Author(s)	Sample	Key Construct	Key Findings
Bloodgood, Sapienza, & Almeida (1996)	61 New High-Potential U.S. Ventures *High Potential defined as possessing venture capital backing.	Innovation	<ol style="list-style-type: none"> 1. Innovation measured as R&D expenses as a percent of total expenses. 2. Found support that internationalization is higher for firms that emphasize product differentiation. 3. Found support that internationalization is lower for firms that emphasize market differentiation. 4. Effect of innovation on internationalization was not supported. 5. Low cost, product differentiation, and size were positively related to sales growth 6. Innovation was positively related to sales growth (marginally significant). 7. Innovation had a significant negative effect on income. 8. Higher levels of internationalization were positively related to income but not significantly related to sales growth.
Damanpour (1991)	Meta-Analysis of 21 articles and 2 Books	Organizational Innovation or Innovativeness	<ol style="list-style-type: none"> 1. Innovation/Innovativeness typically measured as the rate/number of adoption of innovations, number of awards, number of patents, or percentage of innovations. 2. Thirteen potential determinants of innovation were identified. Positive significant associations found between innovation and specialization, functional differentiation, professionalism, technical knowledge resources, slack resources, etc. A negative association was identified between innovation and centralization. 3. Professionalism confirmed as a determinant of innovation (measured as number or percent of professional members with certain educational backgrounds, or an index of the degree of professional training).

Author(s)	Sample	Key Construct	Key Findings
Cooper & de Brentani (1991)	106 New Financial Service Firm Products (56 Successes & 50 Failures)	Innovativeness of Service Product	<ol style="list-style-type: none"> 1. Product advantage is a key to new service success. Services possessing a high advantage were more than three times as successful 2. Professional/skilled expertise was strongly correlated with service success. 3. Marginal success of highly innovative services was attributed to need to lack of product uniqueness and superiority relative to competitors. 4. Product advantage ranked highest contributing factor to product success and ranked fourth for service success.
Cooper & Kleinschmidt (1987)	123 New Product Success and 80 Failures in 205 firms	Product Advantage	<ol style="list-style-type: none"> 1. Product Advantage was a significant factor in new product successes. 2. Product Advantage was significantly correlated on all ten profitability success measures.

2.5.1 Service Innovation

A meta-analysis of published research on new product performance and its antecedents provides several key insights: (1) product “innovativeness” was not found to be a statistically significant predictor of new product performance, indicating that innovativeness is not generalizable across models, (2) product advantage was a key driver of new product performance, (3) the type of product (e.g., manufacturing versus service) may account for a significant amount of variance in the predictor→performance relationship, and (4) human firm resources are dominant drivers of new product success and performance (Henard & Szymanski, 2001).

Observed differences among service innovation are documented. With regard to professional service innovation, Daft (1978) noted a difference between the initiation of innovative ideas and the adoption of innovation between professional and administrative

members of an organization. According to Daft (1978), professionals adopt innovations when current techniques are perceived as unsatisfactory. Consequently, as the professional level of a firm increases, innovations are expected to increase. Daft explains that professionals who perform autonomous customer service tasks that require customization not only propose innovative ideas, but also create services to satisfy customers' needs. Therefore, professionalism and service tacitness is associated with greater service innovativeness and innovative outcomes. Daft (1978) documented a greater number of innovations adopted by professionals as opposed to administrative personnel. Corroborating this view, a meta-analysis which examined the determinants of innovation also found professionalism of managers to be positively correlated with innovation (Atuahene-Gima, 1996a).

Regardless of service complexity, innovation is crucial for the strategic performance of both core and supplementary services (Kotabe, Murray, & Javalgi, 1998). Professional services providers often adapt products during service delivery and rely upon sensing and social skills to capture subtle customer cues. Prior service experience already possessed by the professional service provider serves as the base upon which to draw the necessary skills for service innovation. Since production and consumption of a service is often simultaneous and needs are heterogeneous across customers, service adaptation relies more upon the skills of the frontline service personnel, as opposed to a new product development department in the case of physical goods. Therefore, the social and intellectual skills needed by service employees are highly valued in professional services, particularly since knowledge and prior experience with a foreign market's customers are acquired slowly through years of accumulated work experience and

advanced degrees (e.g. law degree, doctorate degree, financial asset management certification, etc.).

New service development literature provides insight into the skills needed for innovation. According to Johne and Story (1998), a comprehensive review of 7 large scale empirical studies of both new service and new product development research finds that a lack of skilled and experienced service development staff is a key barrier to new service development (Johne & Storey, 1998). Furthermore, empirical results indicate that the effects of innovation are stronger and more prevalent in services than products (Nijssen, Hillebrand, Vermeulen, & Kemp, 2006). A comparison of new product and new service development confirms: (1) a firm's propensity for innovation positively influences radical innovation and performance in both products and services, (2) the effect is more pronounced for services, and (3) product advantage, or the consumer's perceived value of the new innovation relative to competitors, determines the success and financial benefits of innovation (Nijssen, Hillebrand, Vermeulen, & Kemp, 2006).

Prior research establishes that product advantage is the most significant factor affecting product innovation performance (Atuahene-Gima, 1996a; Cooper & Kleinschmidt, 1987). A study of 117 services in Australia by Atuahene-Gima (1996b) found product innovation advantage as the number one success factor contributing to financial performance. The same study also noted that it is important that a firm's human resource strategy complement new service development.

2.6 Performance

Performance is a multidimensional construct (Day & Wensley, 1988; Naman & Slevin, 1993), and researchers advocate the use of multiple measures to assess

performance (Damanpour, 1991). A meta-analysis of the determinants of financial performance indicates: (1) performance is a function of more than one determinant, (2) growth, market share, advertising intensity, and R&D are positively related to performance, and (3) the size of the firm is unrelated to financial performance (Lumpkin & Dess, 1996). With regard to international SMEs, there is no agreement on the appropriate measure of small firm performance (Capon, Farley, & Hoenig, 1990). To complicate matters, performance findings cannot be compared across studies since research is typically conducted in one country (Aaby & Slater, 1989; Cavusgil & Zou, 1994; Walters & Samiee, 1990).

In addition to financial based performance measures, market-based measures also exhibit differential performance effects (Zou, Taylor, & Osland, 1998). Successful new product introductions provide superior market acceptance and a perceived product advantage, which result in greater market share and sales growth. Alternatively, high service personnel efficiencies can lower human resource costs and enhance financial performance. Thus, firm specific advantages are embedded in different processes (Hooley, Greenley, Cadogan, & Fahy, 2005).

Export literature deems export performance to be multifaceted and encompassing several measurement approaches, such as: the percentage of sales from export activities or export intensity, the number of export countries, the contribution of exporting to profits, and managers' perceptual measures of satisfaction with export success (Hult, Cavusgil, Kiyak, Deligonul, & Lagerstrom, 2007). Zahra, Newbaum, and Huse (1997) caution that export intensity may have limited inferential use due to the fact that new ventures are only in the early stages of export development. A study of 201 U.S. SMEs

finds that these firms are largely domestic focused, with a substantially higher amount of sales to home market customers (Zahra, Neubaum, & Huse, 1997). Therefore, foreign-based measures may not fully reflect performance. Walters and Samiee (1990) state that the determinants of export profitability of small firms vary depending upon the profitability dimension examined.

A meta-analysis of determinants of export performance finds that export performance financial measurements are further complicated by local accounting standards and industry specific expectations (Leonidou, Kaminarides, & Hadjimarcou, 2004). More importantly, among internal and external determinants of performance, internal factors were deemed the single most important set of determinants. Since internal managerial attitudes and perceptions strongly influence export performance (Leonidou, Katsikeas, & Samiee, 2002), assessment of managerial subjective measures captures a more direct measure of performance.

In addition, measurement of performance in an international context depends upon the focus of the research study. Unique to this dissertation, the hypothesized model includes measures which differentiate between the firm's degree of internationalization (DOI) and performance. In this research model, a firm's DOI represents the SME's international intensity and is measured as FSTS, which is differentiated from financial performance. Although prior research typically measures export performance using foreign sales to total sales (FSTS) (Leonidou, Katsikeas, & Samiee, 2002), this measure is inappropriate for the current study. Although FSTS has been used as an indicator of SME international performance, size may predispose a small firm to exporting as a first stage of internationalization. Therefore, FSTS does not reflect both the firm's strategic

and financial performance. However, FSTS is recommended to reflect the contribution of export sales to total firm profits (Calof & Beamish, 1995; Lu & Beamish, 2004; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Zahra & Garvis, 2000). In conclusion, profitability alone may not be an appropriate measure for small entrepreneurial firms in early growth stages (Zahra, Neubaum, & Huse, 1997) and may be low in early growth years. Growth is often the result of strategic firm objectives which conflict with short term financial performance.

Small firms pose additional challenges to performance measurement. Research on small firms often predisposes the researcher to the choice of a subjective performance measure since financial information on SMEs is a private matter of the owner. An accepted practice that overcomes disclosure of private financial information is the use of a subjective indirect measure of the firm's performance relative to a firm's principal competitor (Choonwoo, Kyungmook, & Pennings, 2001). Indirect and direct measures of performance have been used interchangeably since both measures are strongly correlated in empirical studies (Li & Atuahene-Gima, 2001; Narver & Slater, 1990), and subjective self-report measures have been deemed reliable (Pearce II, Robbins, & Robinson, 1987). Since international operations may take several years to develop, a measure of satisfaction with international activities captures the manager's assessment of the firm's progress on international goals. Perceptual based measures have also been recommended to compensate for consistency and reliability across countries (Venkatraman & Ramanujam, 1986, 1987) and to capture the strategic outcomes of firm goals (Hult, Cavusgil, Kiyak, Deligonul, & Lagerstrom, 2007). Examples of strategic performance

measures include: market share, market growth, firm reputation, and competitive position.

2.7 *Integration of Literature Review and Model Development*

Based upon the preceding literature review, one concludes that entrepreneurial managers influence the internationalization and performance of professional service SMEs. Successful service international expansion relies upon: (1) the knowledge and skills of professional service firm employees, (2) the service professional's ability to understand customer needs and create innovative solutions to meet diverse customer needs across multiple markets, and (3) development of economies of scale, regardless of cultural market differences. Hence, human capital resources and their professional service competencies play a key role in SME internationalization and the performance outcomes. Based upon this insight, a model of professional service SME internationalization will now be developed.

CHAPTER III

MODEL DEVELOPMENT AND HYPOTHESES

3.1 *Introduction and Focus of the Study*

The purpose of the study is to examine the relationships among a professional service firm's entrepreneurial orientation, human capital, the firm's degree of internationalization, service innovation, and performance. The conceptual model in Figure 2 is the result of a thorough literature review in each of the aforementioned areas. To summarize, first, entrepreneurial and international business literature has noted the potential benefit of examining the influence of an entrepreneurial orientation on internationalization. Second, innovation has been established as an outcome of an entrepreneurial orientation. Third, prior knowledge and skills of a professional service firm's human capital is recognized as the source of service innovations which satisfy heterogeneous client service needs when expanding into new international markets. Thus, a model which integrates these insights will now be developed.

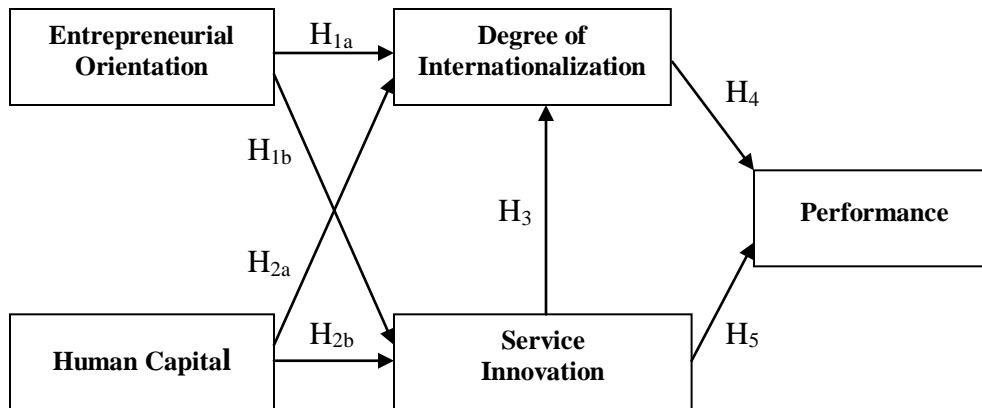
The proposed conceptual model will then be tested using a confirmatory structural equation modeling procedure to assess the fit of the model to data from survey responses of professional service SMEs located in India. The model consists of two exogenous

variables, entrepreneurial orientation and human capital, and three endogenous variables, degree of internationalization, service innovation, and performance.

3.2 *Conceptual Model*

Figure 2

**A Framework of
Professional Service Firm Internationalization and Performance**



3.3 *Contribution*

The model posits that an entrepreneurial orientation and the human capital of a professional service firm will positively influence a firm’s degree of internationalization and service innovation, which in turn, positively affect performance. Furthermore, service innovation is expected to also have a positive influence on the degree of internationalization and performance.

The proposed conceptual model is anticipated to provide several contributions to literature and addresses the call for the development of an integrated, multidisciplinary approach to understanding small firm internationalization (McDougall & Oviatt, 2000;

Venkataramanaiah & Parashar, 2007). This dissertation empirically tests newly hypothesized, cross-disciplinary relationships to provide insight into factors affecting professional service firm internationalization and performance. Specifically, key advancements contributed by this study include: (1) validation of a multidisciplinary framework of professional service performance that integrates and extends the fields of: marketing/international marketing, entrepreneurship, management, strategy, and international business, (2) confirmation of the positive effect of an entrepreneurial orientation on service SME internationalization, (3) recognition of human capital as a key driver of internationalization and service innovation, (4) examination of the effect of intangible assets on the internationalization→performance relationship in services, and (5) insight into factors contributing to SMEs internationalization and financial performance.

3.4 *Hypothesis Related to Entrepreneurial Orientation and Degree of Internationalization*

The direct effect of corporate entrepreneurship on internationalization has been confirmed (Yiu, Chung Ming, & Bruton, 2007). An entrepreneurial orientation influences the choice of a firm to internationalize across borders and the scope of markets entered (De Clercq, Sapienza, & Crijns, 2005).

The influence of entrepreneurship on internationalization has been noted in prior studies of entrepreneurial firm behavior in international contexts (Autio, Sapienza, & Almeida, 2000; Zahra & Garvis, 2000). Zahra and Garvis (2000) reported a positive correlation between international corporate entrepreneurship and international diversification and noted that entrepreneurial firm's placed a greater emphasis on the scope of operations as they expand into new global regions. Concurrently, Autio,

Sapienza, and Almeida (2000) found that an earlier age of entry into international markets by entrepreneurial firms resulted in a stronger positive effect on international sales growth. Recent entrepreneurial research has put forth the contention that an entrepreneurial orientation is a firm specific capability that motivates SMEs to overcome deficiencies and leverage intangible resources for internationalization in emerging markets (Yamakawa, Peng, & Deeds, 2008). Furthermore, intangible entrepreneurial capabilities, as firm resources, are suggested to be a more significant driver of entrepreneurial economic activity than tangible firm resources (West III, Bamford, & Marsden, 2008).

Historically, evidence of entrepreneurial influences on internationalization is also noted in case studies of entrepreneurial firms (Andersson, 2000, 2004; Andersson & Wictor, 2003; Boter & Holmquist, 1996; Fletcher, 2004; Knight, Madsen, & Servais, 2004; Spence & Crick, 2006; Zahra & Garvis, 2000). Several studies cite the entrepreneurial managers as influencing the choice and timing of international market entry (Andersson, 2000). The influence of entrepreneurship on firm internationalization is also reported in research findings of new ventures (Yiu, Chung Ming, & Bruton, 2007), “born-global” firms (Knight & Cavusgil, 2004), and small to medium-sized firms (Crick & Jones, 2000; De Clercq, Sapienza, & Crijns, 2005).

Development of an entrepreneurial culture at an early age positively influences a firm’s international intent (De Clercq, Sapienza, & Crijns, 2005), which allows a firm to be more capable and willing to pursue international opportunities (Autio, Sapienza, & Almeida, 2000). Entrepreneurial behavior facilitates early entrance into new foreign markets. Entrepreneurial proactiveness shapes a firm’s strategic direction and exploits

emerging opportunities to create first mover advantages (Dess, Lumpkin, & Covin, 1997).

Research provides evidence of accelerated firm expansion across borders to capitalize on firm competencies (Knight, 2000; Zucchella, Palamara, & Denicolai, 2007) and gain access to markets. A recent study by Zucchella, Palamara, & Denicolai (2007) confirmed the positive effect of entrepreneurial firm characteristics on the internationalization speed of Italian firms.

In the case of service firms, internationalization results from market-seeking, client-following, and resource-seeking behavior (Erramilli & Rao, 1990). Research examining service internationalization indicates that services are typically the first entrants into foreign markets as client-followers (Calof & Beamish, 1995; Erramilli & Rao, 1990; Terpstra & Chwo-Ming, 1988).

Based upon the above-observed internationalization of entrepreneurial firms, the effect of an entrepreneurial orientation on professional service SME internationalization is proposed as follows:

Hypothesis 1a: A professional service SME's entrepreneurial orientation is positively related to the firm's degree of internationalization.

3.5 *Hypothesis Related to Entrepreneurial Orientation and Service Innovation*

An entrepreneurial orientation is a key driver of firm innovativeness and encourages innovative activities in firms (Hult, Hurley, & Knight, 2004; Miller, 1983; Slater & Narver, 1995). An entrepreneurial firm “engages in product market innovations, undertakes somewhat risky ventures, and is the first to come up with proactive

innovations” (Miller, 1983, p. 771). An entrepreneurial orientation propels managers into action on innovation projects (Hult, Hurley, & Knight, 2004).

Strategic entrepreneurship is a key factor influencing the generation and adoption of innovation (Damanpour & Wischnevsky, 2006). In a study of 764 service and product firms, the authors concluded that an entrepreneurial orientation played a key role in the development and maintenance of firm innovation, regardless of market turbulence (Hult, Snow, & Kandemir, 2003).

The effect of an entrepreneurial orientation has also been noted in marketing literature. Zhou, Yim, and Tse (2005) find empirical support for a direct positive effect of an entrepreneurial orientation on technology and market-based innovations.

Technology innovativeness involves advances in technical expertise, while market-based innovations emphasize product improvements.

Brockman and Morgan (2003) further substantiate that entrepreneurship influences a firm’s exposure, recognition, and identification of new possibilities and innovative information during new product development, which in turn, results in new product innovativeness.

A study of manufacturing and services conducted by Atuahene-Gima and Ko (2001) confirmed the effect of an entrepreneurial orientation on innovation in 181 Australian firms. When comparing service to manufacturing firms, these authors found that entrepreneurial service firms placed a greater emphasis on innovation in human resource practices. These results have significant implications for professional services which rely upon human resource practices to attract and retain highly skilled service employees that possess innovative capabilities for product customization and adaptation.

Lastly, multiple studies undertaken to understanding the effects of a firm's strategy confirm that an entrepreneurial orientation positively influences firm innovativeness (Hult & Ketchen Jr., 2001; Hult, Ketchen Jr., & Nichols Jr., 2002; Hult, Snow, & Kandemir, 2003). These findings provide empirical support that firm innovation is a consequence of an entrepreneurial orientation.

The above discussion of the effects of an entrepreneurial orientation leads to the following hypothesis related to innovation:

Hypothesis 1b: A professional service SME's entrepreneurial orientation is positively related to the firm's service innovation.

3.6 *Hypothesis Related to Human Capital and Degree of Internationalization*

A longitudinal study conducted to examine the effect of human capital on 621 services and manufacturing U.K. exporters from 1990 to 1997 found that entrepreneurial managers, who provide a firm with human capital resources, influence the propensity to export and the intensity of export sales (Westhead, P., & Wright, M., 2001).

Herrmann and Datta (2005) confirm the positive effect of the top management team's education, tenure, and international experience on firm internationalization. Similar findings were reported by Athanassiou and Nigh (2002), confirming the positive effect of international experience on the scale of internationalization in a study of 258 top management teams from 39 U.S. MNEs. Two additional studies provide evidence of the positive effect of top management characteristics on international diversification (Tihanyi, Ellstrand, Daily, & Dalton, 2000; Wally & Becerra, 2001).

Regarding small firms, a longitudinal study of 621 small manufacturing and service firms in Great Britain substantiates the positive effect of human capital resources

on export propensity and the intensity of export sales (Westhead & Wright, 2001). These authors suggest that human capital compensates for the lack of resources in small firms.

In SMEs, human resources are likely to be more critical. Several studies provide empirical support for the positive effect of human capital on SMEs internationalization (Bell, 1995; Calof & Beamish, 1995; Erramilli & D'Souza, 1995; Gronroos, 1999; Hedlund & Kverneland, 1985; Knight, 2000; Patterson & Cicic, 1995; Reuber & Fischer, 1997; Ruzzier, Antoncic, Hisrich & Konecnik, 2007; Coviello, & McAuley, 1999).

Key factors identified as contributing to SME internationalization include knowledge (Autio, Sapienza, & Almeida, 2000) and top management characteristics (Bloodgood, Sapienza, & Almeida, 1996). A study of 61 U.S. knowledge-intensive new ventures found that firms possessing unique resources exhibited a greater proclivity toward internationalization (Bloodgood, Sapienza, & Almeida, 1996). In the same study, the international experience of the top management team was positively related to the extent of internationalization. A follow-up study of small entrepreneurial firms in Finland confirmed that knowledge intensity is a predictor of international sales, growth in international sales, and growth in total sales (Autio, Sapienza, & Almeida, 2000). A separate study of SMEs in China confirms the positive effect of prior foreign market knowledge of entrepreneurial managers on the speed of internationalization and subsequent international growth (Manolova, Brush, Edelman, & Greene, 2002). Export research also provides support that the prior international experience of export managers is a driver of SME internationalization by influencing the firm's involvement in international export activities (Ibeh & Young, 2001).

The positive influence of human capital on professional service internationalization has also been documented. A study of 100 U.S. international law firms provides empirical support for human capital resources as influencing professional service internationalization (Hitt, Bierman, Uhlenbruck, & Shimizu, 2006). The authors conclude that human capital is a primary resource contributor to professional service international expansion.

In conclusion, international knowledge of managers is a key driver of firm internationalization (Crick & Jones, 2000). Therefore, international experience or market knowledge possessed by the human capital of a professional service SME facilitates internationalization. Thus, the following is more formally proposed:

Hypothesis 2a: A professional service SME's human capital is positively related to the firm's degree of internationalization.

3.7 *Hypothesis Related to Human Capital and Service Innovation*

Congruent with the following empirical findings, the experience of a firm's human capital facilitates innovative solutions to meet customers' needs. A meta-analysis of 13 determinants of innovation concluded that professionalism is significantly correlated with innovation (Damanpour, 1991). In a study which examined innovation in 845 Canadian manufacturing firms, knowledge assets, measured as the percentage of technical and professional staff in the workplace, were significantly greater among innovating firms (Shane, 2000).

Among SMEs, the positive contribution of a firm's human capital at both the individual and firm level has been confirmed in a study of small U.S. firms employing

fewer than 500 employees (Zhou, 2007). Human resources, defined as interpersonal and business skills, had a significant positive effect on the firm's innovation strategy.

In entrepreneurial literature, Shane (2000) contends that prior knowledge affects the ability to perceive new opportunities and provide innovative solutions, and is possessed more by entrepreneurial individuals. An in-depth case study of 8 firms conducted to examine innovation and opportunity recognition reported that the prior experience of managers affected the recognition of opportunities and the creation of innovative solutions to customer problems (Edelman, Brush, & Manolova, 2005). Furthermore, prior experience and specialized know-how of entrepreneurial firms' internal human resources are confirmed as significant contributors to the innovation speed and competitiveness of Taiwanese high-tech ventures (Wu, Wang, Chen, & Pan, 2008). Another recent study of U.S. entrepreneurial new technology ventures also confirms that prior experience and business related knowledge significantly increase radical innovativeness in new firms (Marvel & Lumpkin, 2007).

Customer knowledge and competitor knowledge has also been shown to positively contribute to innovation, which provides a new product advantage relative to competitors (Thornhill, 2006). Customer and competitor knowledge is gained through experience with consumers and is retained as tacit service experience.

A study of 45 multinational firms confirmed that tacit knowledge affects a firm's capability to introduce new products, respond to unique requirements of countries, and the frequency of new global product introductions (Calantone, Cavusgil, Schmidt, & Shin, 2004). Tacit knowledge was also found to be greater in members who possessed prior foreign experience. The authors also recommend that firms focus on tacit

knowledge to improve innovation. The value of prior experienced and the acquisition of new tacit knowledge by human capital is also deemed to be a critical determinant of new service innovative capability (de Pablos, 2004).

Research specific to SMEs finds that the success of biotechnical SMEs in international markets is attributed to the innovativeness of employees and the size of the firm (Shane, 2000). Qian and Li (2003) claim that a smaller firm size allows employees to be more innovative.

In professional service SMEs, employees encounter client variety and are faced with unpredictability and heterogeneity of services due to their highly customized nature. Therefore, human capital is critical to development of innovative professional service solutions.

Based upon the above empirical research, the fourth hypothesis to be tested is:

Hypothesis 2b: A professional service SME's human capital is positively related to the firm's service innovation.

3.8 Hypothesis Related to Service Innovation and Degree of Internationalization

A cross-sectional study of 275 exporting and nonexporting Austrian firms confirmed that unique product benefits, innovativeness, and differentiation from competitors' products create a product advantage that results in increased export intensity (Atuahene-Gima, 1995b).

Using innovation as a strategy to exploit international expansion for profitability has also been observed in several studies. A study of three new ventures in the emerging markets of China, Mexico, and Turkey found that innovation can be used to accelerate internationalization and global growth (Calantone, Cavusgil, Schmidt, & Shin, 2004). As

late entrants into the industry, the firms chose a strategy to adopt several innovations and invest heavily in R&D to develop distinctiveness. The firms were highly successful in exploiting innovations for rapid internationalization (Calantone, Cavusgil, Schmidt, & Shin, 2004).

An in-depth study of eleven firms by Oviatt and McDougall (1995) reveals that not only does a global vision of international expansion exist at inception, but that firms intentionally began international expansion by selling unique product and services to enter lead markets. Once established, subsequent incremental innovations were used to maintain advantages. The authors concluded that the firms used product uniqueness and continuous innovation to overcome a lack of resources and experience to gain market advantages. The capability to continuously innovate ahead of competitors was a key to successful international expansion.

Innovation positively influences internationalization among SMEs as well. An in-depth study of the internationalization process of 30 U.K. SMEs (15 characterized as knowledge-intensive and 15 deemed traditional SMEs) determined that: (1) product or process innovation was a stimulus of firm internationalization, and (2) new product development (NPD) of knowledge-intensive firms focused on international markets, in contrast to a domestic focus of traditional SMEs (Bell, Crick, & Young, 2004).

The positive effect of innovation on international growth has been previously confirmed in two notable studies. A study of U.S. ventures found that innovation, measured by R&D, was positively related to international sales growth (Bloodgood, Sapienza, & Almeida, 1996). Similar findings were reported by Autio, Sapienza, and Almeida (2000); thus confirming the effect of innovation on international sales growth.

In the current study of professional service SMEs, human capital assets are a key source of service innovation. Given that professional service employees generate more immediate service innovations than the delayed return of investments in R&D, the effects of professional service innovations are expected to be more immediate. Therefore, the following hypothesis is formally proposed:

Hypothesis 3: A professional service SME's service innovation is positively related to the firm's degree of internationalization.

3.9 Hypothesis Related to Degree of Internationalization and Performance

Empirical evidence provides support that international diversification positively affects a firm's financial performance (Bloodgood, Sapienza, & Almeida, 1996; Delios & Beamish, 1999; Grant 1987; Hitt, Hoskisson, & Kim, 1997). The positive effect of internationalization on performance has been documented in MNEs (Kim, Hwang, & Burgers, 1989) and high-tech firms (Qian & Li, 2003; Qian, Yang, & Wang, 2003).

Studies of new venture firms finds that early international entry into new markets gains first mover advantages and improves performance (Brock, Yaffe, & Dembovsky, 2006; Geringer, Beamish, & da Costa, 1989; Hitt, Bierman, Tallman, & Li, 1996; Hitt, Hoskisson, & Kim, 1997; Uhlenbruck & Shimizu, 2006; Zahra, Ireland, & Hitt, 2000). International diversity increases the opportunity to exploit a firm's knowledge to improve performance across a greater number of international markets (Zahra, Ireland, & Hitt, 2000). According to Zahra, Ireland, and Hitt (2000), geographic diversity positively influences ROE and sales growth. Bloodgood, Almeida, and Sapienza (Bloodgood, Sapienza, & Almeida, 1996) also confirm the positive effect of accelerated internationalization on income.

With regard to smaller firms, a study of biotech SMEs finds that the positive performance benefits of international expansion increase with greater internationalization (Zahra, Ireland, & Hitt, 2000). A study of emerging U.S. SMEs with an average of 260 employees also found a positive relationship between SME multi-nationality and firm performance (Qian & Li, 2003; Qian, Yang, & Wang, 2003). Studies by Qian, Li, and Wang (Qian & Li, 2003; Qian, Yang, & Wang, 2003) provide further evidence of the positive effect of internationalization on multiple financial performance measures (ROS, ROA, ROE, and sales growth).

The above research findings infer that professional service SME performance is expected to increase with international expansion due to: (1) highly intensive knowledge-based resources, and (2) the lack of required investment in physical plant facilities and manufacturing changes in tangible products. The greater flexibility and innovative capacity of intangible human capital resources is expected to improve performance with international expansion.

A study of 105 large U.S. law firms confirmed the positive effect of leveraging intangible human assets for a greater geographic scope of markets improved profitability (Kor & Leblebici, 2005). The authors state that the experience, education, and capacity to learn of a firm's human capital determine the extent that a firm can leverage its professional human resources to adapt services to newly entered markets.

In summary, internationalization is expected to have a positive effect on performance from leveraging the experience of professional human capital to offset the liability of foreignness for successful and profitable international expansion. Therefore, this research seeks to test the following proposed relationship:

Hypothesis 4: A professional service SME's degree of internationalization is positively related to the firm's performance.

3.10 *Hypothesis Related to Service Innovation and Performance*

The positive effect of innovation on service performance has been confirmed in a focused study of 231 service firms (Matear, Osborne, Garrett, & Gray, 2002). In addition, a study of 182 U.S. manufacturing and service firms documents the positive effect of innovation on financial performance (Cavusgil, Calantone, & Zhao, 2003).

Several studies of services confirm that innovation improves service performance even in differing global contexts. Zhou, Yim, and Tse (2005) have documented the positive influence of innovation on firm performance in the emerging market of China. A comparison of the effects of innovativeness on performance among firms in the transition economy of China versus the market economy of Hong Kong found that innovation is an important contributor performance in either economy (Luk, Yau, Sin, Tse, Chow, & Lee, 2008). With regard to services, a study that compared 217 services to 105 product innovations in the Netherlands found that service firms experienced greater effects of innovations on firm performance (Nijssen, Hillebrand, Vermeulen, & Kemp, 2006).

Other large-scale studies also offer support. A multi-industry sample of 323 marketing executives confirmed the positive effect of innovation on performance (Li & Atuahene-Gima, 2001), and a large-scale study of 845 Canadian firms found innovation to significantly influence revenue growth (Thornhill, 2006). Moreover, Thornhill noted that the effects of innovations in services are stronger and more prevalent when knowledge assets are high, such as in high-technology firms.

Greater propensities for innovation are also observed in some service sectors. A two year longitudinal study of 735 Italian service firms confirmed the long-term positive effect of innovation on performance, and noted a much higher propensity to innovate in the software, R&D, engineering, and technical consultancy service sectors (Cainelli, Evangelista, & Savona, 2006). Innovating firms not only outperformed non-innovating firms on productivity and growth; but the effects of innovation positively impacted productivity levels for three subsequent years. As a result, innovation was deemed a key driver of performance. Another longitudinal study of a public service organization by Walker, Damanpour, and Avellaneda (2007) also confirms the positive effect of innovation on performance.

For small firms, the effects of innovation are well documented. A notable study in the field of entrepreneurship by Zahra, Ireland, and Hitt (2000) that examined industrial and service international new ventures in 12 industries documented a positive relationship between technological innovation and international performance. Another study of new technology ventures in China by Atuahene-Gima (1996a) also confirmed the direct positive effect of innovation on performance with an even higher effect evidenced in environmental turbulence. A different study by the same author examined entrepreneurial firms in Australia, of which service firms comprised 30% (Atuahene-Gima & Ko, 2001). The study noted the improved performance effects of firms that employed a combination of an entrepreneurial orientation and innovation. A study of 73 entrepreneurial biotech SMEs also found that an innovative strategy significantly improved firm performance (Qian & Li, 2003).

Lastly, a comprehensive study undertaken by Hult, Hurley, and Knight (2004) established that regardless of environmental factors and antecedents, innovativeness positively influences profitability, growth in sales, market share, and general performance measures. In global markets, innovation is important for firm performance (Hitt, Keats, & DeMarie, 1998).

The above studies provide empirical support that innovation enhances firm performance; thereby substantiating the importance of creating a culture of innovation. It is anticipated that service innovation will positively influence a professional service firm's financial performance.

Therefore, the fifth hypothesis to be tested is:

Hypothesis 5: A professional service SME's service innovation is positively related to the firm's performance.

CHAPTER IV

RESEARCH DESIGN AND METHODOLOGY

4.1 *Overview*

Chapter IV describes the research methodology used to test the hypothesized relationships developed in Chapter III. A discussion of the research design and sampling frame is provided first, followed by a review of the data collection procedures. Next, the development and testing of the survey instrument and scales used in the operationalization of the variables are reviewed along with a brief explanation of the control variables.

After discussion of the survey instrument, the psychometric testing procedures to assess the reliability and validity of the instrument scales will be detailed. A brief review of the multivariate method used in testing the hypothesized relationships is provided prior to a discussion of the research results. Following the research results detailed in Chapter V, a discussion of the implications, theoretical contributions, and limitations of the current research study is provided in Chapter VI.

4.2 Study Design

Data for this study were collected from professional service SMEs located in India in two stages: a sample pretest and a full scale sample study. A pretest sample of 100 survey responses was conducted via a survey of professional service firms located in India to pretest the survey instrument and verify the scales to be used in the full scale study. Sampling is intentionally concentrated in the knowledge-intensive service sectors.

A research focus on SMEs limits sample targeting to firms employing less than 500 but more than six employees. A descriptive profile of the sampling frame requirements (e.g., firm size and industries) was provided to a research firm, Insights India, located in Mumbai, India. In response to the request, a list of professional service SME industries and sampling procedures was provided by Insights India and reviewed for accuracy of the sampling frame requirements and procedures.

The initial phase of this study was undertaken to affirm understanding of the survey items and to validate measurement of the constructs in the country of India under potentially new cultural meanings since all of the scales had not been previously tested in India. Details of the pretest and survey review are described below in the stages of the pretest study.

Data for the second phase to complete the full scale study was conducted in a similar method as the initial pretest, including a focused sampling of SMEs employing less than 500 persons (Leonidou, Kaminarides, & Hadjimarcou, 2004; Lu & Beamish, 2001; Oviatt & McDougall, 1994) in knowledge-intensive industries. A full sample of 201 survey responses was undertaken to complete the full scale study.

4.2.1 Description of the Target Population and Sampling Criteria

The intent of this study was to examine international professional service SMEs originally headquartered in India. The survey was administered to a random sample of professional service SMEs of a population that meets all three of the following criteria:

1. Small to medium-sized enterprises (SMEs) defined as firms employing less than 500 employees,
2. Professional service firms among nine highly skilled service industries: Computer/Information, Management or Consulting, Financial Services or Banking, Health Services, Legal, Advertising, Accounting/Payroll/Taxes, Architects, and Engineers, and
3. Firms involved in international business activities in one or more countries other than their founding location of India. International activities may involve: exporting, foreign licensing, foreign joint ventures, foreign market operations, foreign direct investment.
4. The contact respondent is limited to the owner, chief executive officer, managing director, or vice president of the SME.

4.2.2 Sample Type and Size

A total sample of approximately 200 responses including a pretest sample of 100 survey responses was collected from owners, chief executive officers, or senior level managing directors of the international business activities for small to medium-size professional service firms. A limit of one response per service firm was imposed.

Data was collected randomly among a database of professional service SMEs with no geographic limitation. Due to the limited availability and difficulty in gathering

SME data, the SME database used relied upon multiple sources of professional service SME information. The database of small businesses acquired by Insights India was based upon the following sources: business membership Web sites, city wide data of IT companies, service publications, service and business related journals, professional service business associations (National Entrepreneur Network; Confederation of Indian industry or CII), and professional associations of architects, chartered accounts, medical and law practitioners, professional, etc.

Guidelines for sample size requirements were determined based upon the analytical method chosen, structural equation modeling (SEM). The choice of a structural equation modeling analytical technique establishes that the sample size be “at least five respondents for each estimated parameter, with a ratio of 10 respondents per parameter considered most appropriate,” subject to a recommended minimum sample size of 200 for structural equation modeling (Hair, Anderson, Tatham, & Black, 1998, p. 604).

Furthermore, the minimum sample size to ensure appropriate maximum likelihood estimation (MLE) is 100 to 150, and a maximum of 500 is considered too sensitive (Hair, Anderson, Tatham, & Black, 1998). Thus, a sample of 200 respondents is considered most appropriate. In addition, Bentler and Yuan (1999) indicate that small sample sizes work reasonably well with maximum likelihood estimation (MLE).

The research project was comprised of the following stages in the order listed:

Stage 1: Focused review. A preliminary review of the survey was undertaken by completion of up to 10 surveys to validate understanding of the survey concepts and items by local service SME owners in India.

Stage 2: Survey pretest. Completion of a pretest sample of 100 responses from professional service SMEs in India for survey instrument evaluation.

Stage 3: Full scale survey data collection. Completion of a full scale study of 200 survey responses in India for structural equation modeling analysis.

4.3 Data Collection Procedure

Insights India, a research firm located in Mumbai, India, pre-screened respondents via telephone to assure that all sample criteria were met (e.g., professional service firm, SME employee size, and international involvement). Data was collected by forwarding the survey instrument for completion via mail and e-mail by Insights India. The survey required approximately 20 minutes to complete. A copy of the survey is provided in the Appendix and delineates the measurement items used for an entrepreneurial orientation, human capital, the degree of internationalization, service innovation, and financial performance. The latter sections of the survey captured both the demographics of the firm and the respondent demographics, such as age, gender, etc.

After collection of the data from professional service SMEs by Insights India, the market research firm in India, the completed hard copies of the surveys were forwarded by Insights India via mail to the researcher located in the United States. The researcher visually reviewed the surveys for respondent error and missing data.

The data was then entered by the researcher into a SPSS data file in order to evaluate data normality, missing data, and to conduct a preliminary review of item correlations and confirmatory factor analysis of the survey scales. Since the survey instrument did not collect identifiable information on the survey respondent, coding of survey responses did not record the respondent's firm or other identifying information.

Due to the need for a minimum of 5 to 10 data points per item to conduct structural equation modeling (Hair, Anderson, Tatham, & Black, 1998), this technique was conducted only on the responses of the full scale study.

4.4 *Questionnaire Design*

Overview

The survey questionnaire developed for this research study utilizes scale items which have all been empirically tested in prior research and reported as possessing strong reliability and validity of measures. A copy of the survey in response format is provided in Appendix A. A list of the scales used in the survey questionnaire and the supporting literature are provided in Table VII hereafter. The selected scales were obtained from established empirical studies in entrepreneur, management, marketing, and international business literature. The scales are supported in literature as being psychometrically sound.

In accordance with guidelines for the appropriate use of surveys and the protection of human subjects in research, the survey questionnaire was submitted for review to the Cleveland State University Institutional Review Board for Human Subjects in Research (IRB) on December 5, 2007. A copy of the application for the research project review is included in Appendix B. Approval to proceed with the research study and survey questionnaire was received. A copy of the Cleveland State University Institutional Review Board for Human Subjects in Research (IRB) approval letter dated January 25, 2008 is provided in Appendix C.

Although there are multiple domestic Indian languages spoken, English is one of India's official languages and is the dominant language used by India businesses and the

government of India (CIA, 2007). Since the sample targets businesses in India, the survey was prepared in English form.

Table VII. Survey Scales and Literature Support

Scale	Literature Support
Entrepreneurial Orientation (5 items)	Khandwalla, 1977; Miller, 1983; Miller & Friesen, 1982; Covin & Slevin, 1989; Naman & Slevin, 1993; Covin, Slevin & Schultz, 1994; Zahra & Covin, 1995; Knight, 2000; Hult, Ketchen Jr., & Nichols Jr., 2002; Hult, Snow & Kandemir, 2003; Hult, Hurley & Knight, 2004; Knight, & Cavusgil, 2004.
Human Capital (5 items)	Youndt, Subramaniam & Snell, 2004; Subramaniam & Youndt, 2005.
Service Innovation (4 items)	Calantone & Cooper, 1981; Cooper & Kleinschmidt, 1987; Parry & Song, 1994; Atuahene-Gima, 1995a, b, 1996a, b; Song & Parry, 1996, 1997, 1999; Atuahene-Gima & Ko, 2001; Langerak, Hultink & Robben, 2004.
Degree of Internationalization (2 items)	Cavusgil & Zou, 1994; Zahra, Neubaum, & Huse, 1997; Delios and Beamish 1999; Preece, Miles, & Baetz, 1999; Autio, Sapienza, & Almeida, 2000; Zahra & Garvis, 2000; Zahra, Ireland, & Hitt, 2000; Lu & Beamish, 2001, 2004; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Wagner, 2004; George, Wiklund, & Zahra, 2005; Oviatt & McDougall, 2005; Pla-Barber & Escriba-Esteve, 2006; Zhou 2007; Kumar & Singh 2008.
Performance (2 items)	McDougall & Oviatt 1996; Chang & Chen, 1998; Delios & Beamish, 1999; Li & Atuahene-Gima, 2001; Lukas, Tan, & Hult, 2001; Leonidou, Kaminarides, & Hadjimarcou, 2004; Lu & Beamish, 2004; Hooley, Greenley, Cadogan, & Fahy, 2005; Hult, Ketchen, & Slater, 2005; Contractor, Kumar, & Kundu, 2007; Hult, Cavusgil, Deligonul, & Lagerstrom, 2007.

To assure accurate interpretation of the survey, two phases within the pretest study were intentionally included to assess the face validity of the survey items. These stages included a preliminary review of the survey by 5 local service business owners in Mumbai, India, and a second preliminary trial sample of 10 surveys completed by local service business owners in Mumbai prior to implementation of the survey pretest. The preliminary testing of the survey indicated the need for clarification of one item in the entrepreneurial orientation scale. This change is described below in the pretest results.

4.4.1 *Entrepreneurial Orientation Scale*

The entrepreneurial orientation scale operationalized in this study is based upon the work of Naman and Slevin (1993), Covin and Slevin (1989), and Khandwalla (1977). The scale has been empirically tested in numerous studies throughout literature (refer to Table III Literature Review of Entrepreneurial) and has more recently been used by (Covin & Slevin, 1989; Hult, Ketchen Jr., & Nichols, Jr., 2002; Hult, Snow, & Kandemir, 2003; Hult, Hurley, & Knight, 2004; Naman & Slevin, 1993; Zahra & Covin, 1995). The scale utilizes 5 items for measuring an entrepreneurial orientation at a firm level. The response format requires that the respondent select a response among a Likert scale ranging from 1 to 7, where 1 indicates that the respondent strongly disagrees with the anchored statement, and a 7 indicates that the respondent strongly agrees with the anchored statement.

Construct validity of the scale has been established using confirmatory factor analysis; and invariance across cultures has been confirmed (Knight, 1997; Kreiser, Marino, & Weaver, 2002). Reliability of the scale was established in prior studies (refer

to Table III titled Literature Review of Entrepreneurial Orientation). Empirical support is established for combining items into a single scale (Covin & Slevin, 1989).

4.4.2 *Human Capital Scale*

Human capital measured in the current study undertook a subjective measurement of the skill, knowledge, and the ability of employees of the firm. The scale used in this study is a duplication of items used in prior studies by Youndt, Subramaniam, and Snell (Youndt, Subramaniam, & Snell, 2004; Subramaniam & Youndt, 2005). These authors indicate that the scale was developed from human capital and strategic human resource management literature streams (Subramaniam & Youndt, 2005). The scale, developed from previous work of Snell and Dean (1992), was tested in more than 100 industries and found to have good psychometric properties. Therefore, this scale was chosen based upon the authors' extensive industry testing and is anticipated to perform well in the examination of the professional services in this dissertation. Validation of the multi-item scale has been conducted using confirmatory maximum likelihood factor analysis (Subramaniam & Youndt, 2005).

The scale consists of 5 items with a response format ranging from 1 to 7, where 1 indicates that the respondent strongly disagrees with the statement and 7 indicates strong agreement with the statement. The scale's measurement properties have been empirically found to show unidimensionality; confirmatory factor analysis fit indexes exceeding levels recommended by Benter and Bonnet (1980); and factor loadings are above the suggested value of 0.70. Therefore, the scale shows strong convergent and discriminant validity (Youndt, Subramaniam, & Snell, 2004).

4.4.3 Degree of Internationalization Measure

A SME's degree of internationalization was measured using two items in order to satisfy the more stringent requirements of structural equation modeling, which takes into account measurement error of each construct, and the recommendations for a multi-item measure (Sullivan, 1994). The degree of internationalization reflects a firm's extent of international diversification and is measured with two items: (1) foreign sales as a percentage of total sales (FSTS), and (2) the growth rate of foreign sales. The measures are based upon research which differentiates between firm internationalization and financial performance (Cavusgil & Zou, 1994; Contractor, Kumar, & Kundu, 2007; Elango, 2007; Kumar & Singh, 2008; Lu & Beamish, 2001, 2004; McDougall & Oviatt, 1996; Pla-Barber & Escriba-Esteve, 2006, Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004).

The first item that captures a SME's DOI is foreign sales as a percentage of total sales (FSTS). The single item asks respondents to "Please estimate the percentage of your company's total sales which are attributable to foreign sales." FSTS captures the contribution of international revenue to the firm's total revenues and is a widely used measure. The second item is a growth measure used in entrepreneurial research (Moreno & Casillas, 2008) and captures the SME's speed of growth in only the international component of a firm's expansion (Autio, Sapienza, & Almeida, 2000; Kumar & Singh, 2008; Oviatt & McDougall, 2005; Tseng, Tansuhaj, Hallagan, & McCullough, 2007; Wagner, 2004; Zhou 2007). Growth in foreign sales is used to capture different effects deemed important to understanding a firm's multinationality (Kumar & Singh, 2008; Tseng, Tansuhaj, Hallagan, & McCullough, 2007).

4.4.4 *Service Innovation Scale*

Service innovation was measured by a 4-item scale and is based upon the work of Atuahene-Gima in accordance with the author's development of the scale from preceding empirical studies (Atuahene-Gima, 1995a, b, 1996a, b; Atuahene-Gima & Ko, 2001). Respondents were asked to respond to a list of statements describing the services offered by their firm. The response format is a 7-point scale where 1 indicates that the respondent strongly disagrees with the statement, and a 7 indicates that the respondent strongly agrees with the statement. An example of one of the four service innovation items which ask respondents if they agree or disagree with the statement describing the service(s) offered by his/her firm is, "Services(s) offer unique benefits to the customer, not offered by competitors." The remaining 3 similar items comprising the service innovation scale are provided in the survey in Appendix A.

4.4.5 *Performance Scale*

Prior research indicates that performance is a complex construct and researchers should use multiple performance measures (Atuahene-Gima 1995a, b, 1996a, b; Atuahene-Gima & Ko, 2001; Calantone & Cooper, 1979, 1981; Langerak, Hultink, & Robben, 2004; Parry & Song, 1994; Song & Parry, 1994, 1996, 1997, 1999). With regard to international SMEs, there is no agreement on the appropriate measure to determine small firm performance (Day & Wensley, 1988; Naman & Slevin, 1993; Venkatraman & Ramanujam, 1986, 1987).

Prior research typically measures the export performance or export intensity using a DOI measure, such as FSTS (Aaby & Slater, 1989; Cavusgil & Zou, 1994; Walters & Samiee, 1990). Due to the fact that the hypothesized model utilizes foreign sales (FSTS)

as a measure of a SME's degree of internationalization (DOI), the performance measure used in this study does not include FSTS as a measurement item.

The key determining factor of the chosen performance measure is this study's focus on SMEs. Due to the fact that the majority of SMEs in India are privately held, subjective financial performance measures were chosen. Research on small firms predisposes the researcher to subjective performance measures since financial information on SMEs is a private matter of the owner. A subjective indirect measure of the firm's performance is an acceptable method of performance assessment which overcomes disclosure of private financial information (Sapienza, Smith, & Gannon, 1988). Indirect and direct measures of performance have been used interchangeably since: (1) both measures have been validated as being strongly correlated in empirical studies (Li & Atuahene-Gima, 2001; Narver & Slater, 1990; Sapienza, Smith, & Gannon, 1988; Venkatraman & Ramanujam, 1986, 1987) and (2) subjective self report measures are deemed reliable (Pearce II, Robbins, & Robinson, 1987). Perceptual based measures have also been recommended to compensate for consistency and reliability across countries (Venkatraman & Ramanujam, 1986, 1987) and to capture the strategic outcomes of firm goals (Hult, Cavusgil, Kiyak, Deligonul, & Lagerstrom, 2007).

Therefore, the subjective measures of financial performance used in this survey asked owners or key executives to assess the profitability of their firm relative to their firm's principal competitor over the past three years on the following financial performance measures: return on investment (ROI) (Hooley, Greenley, Cadogan, & Fahy, 2005; Hult, Cavusgil, Deligonul, & Lagerstrom, 2007; Hult, Ketchen, & Slater, 2005; Leonidou, Kaminarides, & Hadjimarcou, 2004; McDougall & Oviatt 1996), and

return on assets (ROA) (Chang & Chen, 1998; Contractor, Kumar, & Kundu, 2007; Delios & Beamish, 1999; Hult, Ketchen, & Slater, 2005; Li & Atuahene-Gima, 2001; Lu & Beamish, 2004; Lukas, Tan, & Hult, 2001).

4.5 *Control Variables*

The following control variables were included in the survey: industry sector, number of employees, ownership type, respondent demographics, and international experience. The control variable items are found in the survey copy provided in Appendix A and are explained below.

4.5.1 *Industry*

As indicated by prior research, variance in results is expected in industries and service sectors since industry-specific conditions often drive the rate of internationalization (Bloodgood, Sapienza, & Almeida, 1996). Differences among firm internationalization across industries may be due to differing motives for internationalization (Li & Atuahene-Gima, 2001). A higher propensity of innovation across service sectors has also been observed in the software, R&D, engineering, and technical consultancy services (Cainelli, Evangelista, & Savona, 2006). A meta-analysis of export performance also finds that industry factors account for differences in financial measurements and performance expectations (Leonidou, Katsikeas, & Samiee, 2002). Based upon research findings, Calof and Beamish (1995) advocate examining specific industry effects.

4.5.2 *Number of Employees*

Firm size is most commonly measured by the number of employees (Katsikeas, Piercy, & Ioannidis, 1996; Kundu & Katz, 2003) and has been shown to impact performance, (Dunning, 1988; Durand & Coeurderoy, 2001; Pan, Li, & Tse, 1999) and internationalization (Calof, 1993; Dunning, 1988; Durand & Coeurderoy, 2001; Pan, Li, & Tse, 1999). In contrast to large firms, SMEs have limited financial and managerial resources (Hoskisson, Johnson, & Moesel, 1994) which may impede growth and foreign expansion. Research also indicates that firm size influences management attitudes toward operating internationally, which affects the degree of internationalization of service firms (Aldrich & Auster, 1986).

Observed differences in small and large firms may also be due to different strategic objectives, such as the choice to trade-off long-term growth for short-term profitability. Small firms may choose an aggressive growth objective initially; then focus on profitability once established in the target markets. Various strategic objectives would have substantially different effects on standard measures of financial performance (Wiklund & Shepherd, 2005; Zahra, 1991).

This dissertation defines the size of the firm using the number of employees according to SME criteria for inclusion into the study. Although there is no generally accepted definition of a SME, entrepreneurship literature most commonly uses the definition provided by the American Small Business Administration (Oviatt & McDougall, 1994), which defines SMEs as independent enterprises with less than 500 employees. A SME firm size of less than 500 employees is congruent with SME

characteristics (Leonidou, Kaminarides, & Hadjimarcou, 2004; Lu & Beamish, 2001), and the definition of the North-American Industrial Classification System (NAICS).

4.5.3 *Ownership*

Ownership of a firm has been observed to have differential effects on the risk taking of entrepreneurial managers (Lu & Beamish, 2001). According to Zahra (2003), family owned businesses typically exhibit high involvement of owners in firm activities, and non-financial objectives of the owner may conflict with financial objectives and internationalization. Family firms also place a greater emphasis on privacy and are less inclined to disclose financial information (Zahra, 2003). However, a recent study of U.S. professional advertising consulting firms found no significant difference in performance between public versus privately owned firms (Nordenflycht, 2007).

4.5.4 *Age*

Entrepreneurial literature indicates that age has a negative effect on international sales in privately owned firms since owners are more concerned with family ownership succession, which conflicts with international expansion (Litz, 1997). Older firms are said to be more formalized than younger firms, which may have affect behavior since older firms are less likely to be flexible and responsive to change (Zahra, 2003).

4.5.5 *Demographics*

Demographic characteristics of the respondent were collected in the survey. Size of the firm (number of full time employees) was collected to validate inclusion into the dataset for statistical analysis. Additional descriptive items such as industry, sales, business form of involvement in international activities, and public or private status were

gathered for comparison of results to other studies. A profile of respondent demographics obtained by the survey instrument include: gender, years of experience in the industry, years of international business experience, number of languages spoken, and the number of years with the firm. Respondent demographics are provided for both the pretest and full scale results in Chapter V.

4.5.6 *International Experience*

We also controlled for international experience since SMEs with more international experience may have more resources, which would affect performance.

4.6 *Statistical Analysis*

The hypothesized relationships depicted in the research model were empirically tested using structural equation modeling (SEM). SEM is differentiated from other techniques by the ability to: (1) simultaneously estimate multiple and interrelated dependence relationships, (2) the capacity to represent unobserved concepts among relationships, and (3) incorporate measurement error in the estimation process (Hair, Anderson, Tatham, & Black, 1998). Calculation of the parameter estimates are based upon input from a correlation or covariance matrix. Confirmatory modeling in SEM is a process whereby the researcher specifies a model, which is then tested using data to determine if the hypothesized model fits the existing relationships in the data.

SEM allows multiple dependent variables and two or more independent variables. The process of SEM analysis involves up to three model estimations. First, the researcher's conceptual model is created. Second, the conceptual model is then converted into a path diagram which specifies the paths, or relationships, between

variables. Third, the path model is converted into a structural model for testing of the model's fit to the data.

If all variables under study in the theoretical model are observed, i.e. manifest variables, the path diagram are simply translated into a series of structural equations for modeling. Each dependent variable, referred to as endogenous constructs, is depicted by an arrow pointing toward the dependent variable in the model. Independent variables, termed exogenous variables, are depicted by an arrow pointing away from the variable and toward the dependent variable in the model.

A path model is then translated into a structural model for the purpose of assessing causal relationships. However, if the path model includes unobserved latent variables, then the path model must first be transformed into a measurement model for examination of reliability and validity. The measured variables in the measurement model are known as indicators. Next, a structural model is created for evaluation using SEM. Since the current study's hypothesized conceptual model contains latent constructs; the measurement model was converted into a structural equation model and both the measurement and structural models were assessed.

The stages of structural equation modeling involve the following (Hair, Anderson, Tatham, & Black, 1998):

Stage 1: Developing a theoretically based model. A sound theoretical model is the foundation upon which the researcher looks to tests the hypothesized relationships. A critical error in model development is the omission of a key variable, referred to as specification error.

Stage 2: Constructing a path diagram of causal relationships. The path diagram indicates the predictive relationships as well as associative relationships, or correlations among both the constructs and indicators.

Stage 3: Convert the path diagram to a measurement model and a structural model. This stage involves defining the variables that measure the constructs in the measurement model. Creating a structural equation model is the process of translating the path diagram into a series of structural equations.

Stage 4: Selection of the input matrix and estimating the proposed model. The choice of a correlation matrix is recommended when the goal of the researcher is to understand the pattern of relationships but not to explain the variance of the construct. A correlation matrix results in more conservative estimates.

Stage 5: Assessment of the Identification of the Structural Model. Identification of the model requires a separate equation to estimate each coefficient. Thus, the difference between the number of correlations and the number of coefficients is the model degrees of freedom. In estimation, each estimated coefficient uses one degree of freedom. Therefore, the model must use less than the number of degrees of freedom, which is termed an “overidentified” model. This condition must be satisfied in order to proceed. Recommendations to improve identification of the model can be found in Hair, Anderson, Tatham, & Black (1998).

Stage 6: Evaluating Goodness-of-Fit Criteria. Fit must be assessed in two stages: overall model fit and measurement model fit. The measurement model is assessed for unidimensionality and reliability. Although Cronbach’s alpha is typically used to assess reliability, this measure does not ensure unidimensionality (Cronbach,

1951). Reliability indicates the internal consistency of the construct indicators and the degree that the measurement items indicate the latent (unobserved) construct. According to Hair Anderson, Tatham, and Black (1998), the acceptable reliability threshold is 0.70; however values less than 0.70 are acceptable when the research is exploratory.

The structural model must be assessed for fit by examining the significance of the estimated coefficients based upon a specified level of significance. The correlation matrix should also be examined for excessively high correlations, indicating multicollinearity. Correlations in excess of 0.90 should be closely examined.

Goodness-of-fit criteria are also examined for assessment of the structural model. This study's data are assessed using AMOS software (Arbuckle, 1999) and the key fit criteria discussed in section 4.6.4, "Tests of Significance and Inference."

4.6.1 Assumptions

It should be noted that similar to other multivariate methods, SEM makes three key assumptions: independence of observations, random sampling of the respondents, and linearity of all relationships (Hair, Anderson, Tatham, & Black, 1998). Normality, skewness, and kurtosis can seriously contaminate results. Therefore, normality is assessed using the Kolmogorov-Smirnov test. If the data is not multivariate normal, data transformation may be undertaken or an alternative estimation model (Tabachnick & Fidell, 2007). Second, the assumption of linearity must be addressed by examination of the data scatterplots and residuals.

SEM is also more sensitive to a strong kurtosis in data and departures from multivariate normality, which inflates the goodness-of-fit statistics and underestimates standard errors (Shook, Ketchen Jr., Hult, & Kacmar, 2004). Therefore, it is critical that

the researcher perform standard data tests for normality, skewness, and kurtosis prior to SEM estimation. Since SEM estimation utilizes simultaneous evaluation of multiple interrelated dependence relationships, a simple linear regression model estimation equation is transformed as specified below (Tabachnick & Fidell, 2007). The model specification equation of the Bentler-Weeks (1980) regression model, expressed in matrix algebra, is:

$$\text{SEM Model Specification Equation: } \eta = \beta\eta + \gamma\xi$$

Where η is a $q \times 1$ vector of dependent variables, q represents the number of dependent variables, and r is the number of independent variables, then β is a $q \times q$ matrix of regression coefficients between the dependent variables, γ is a $q \times r$ matrix of regression coefficients between the dependent variables and the independent variables, and ξ is a $r \times 1$ vector of the independent variables.

All variables in this research study were measured using multiple indicators to improve measurement results. Data analysis was performed using structural equation modeling with AMOS (Analysis of Moment Structures) (Arbuckle, 1999) and SPSS. Structural equation modeling allows simultaneous exploration of direct and indirect relationships and the inclusion of hierarchical structures. Specifically, SEM permits simultaneous exploration of several separate multiple regression equations. Variables also include an error term to measure the variance not explained by antecedent variables.

SEM procedures utilized in this research involve a two-step process. First, dimensionality of the constructs, reliability, and validity of the measures were tested using a measurement model. The first step consisted of testing the scales for dimensionality, reliability, and construct validity using confirmatory factor analysis

(CFA). Construct validity is established when operationalization actually measures the intended concept it is suppose to measure (Carmines & Zeller, 1979; Churchill, 1979; Cook & Campbell, 1979). Construct validity was assessed from two approaches: convergent and discriminant validity. Second, the structural model which depicts the researcher's hypothesized theoretical relationships was assessed for fit of the model using several established fit criteria and guidelines described hereafter.

The most common measure of reliability is coefficient alpha. First, the coefficient alpha value for each construct was reviewed. Coefficient alpha reliability scores of 0.70 are considered an acceptable conservative threshold with each indicator of reliability above 0.50 (Shook, Ketchen Jr., Hult, & Kacmar, 2004). However in early stages of research, reliabilities of 0.50 to 0.60 are acceptable (Nunnally, 1967).

The first measure of construct validity, *convergent validity*, is “the degree to which multiple attempts to measure the same concept are in agreement” (Bagozzi & Yi, 1988, p. 425). Assessment of convergent validity in structural equation modeling is correctly called *convergence in measurement*. According to Bagozzi et al. (Bagozzi, Yi & Phillips, 1991, p. 425) “measures of the same construct should be highly intercorrelated among themselves and uniform in the pattern of intercorrelations.” Convergence in measurement is performed prior to causal modeling to satisfy the validity of construct measurement prior to use of the construct in the hypothesized model.

According to Bagozzi (1980), convergence in measurement criterion is similar to convergent validity as described by Campbell and Fiske (1959); however, convergent validity represents the degree to which two or more measures of the same concept *through maximally dissimilar methods* agree. Convergence in measurement refers to

multiple uses of the same method, such as multiple items in a single scale, multiple test-retest procedures. Convergence in measurement in structural equation modeling does separate methods and trait variance, as recommended by Campbell and Fiske (1959). Convergent validity is evaluated by review of item factor loadings. Convergent validity is established when item loadings on their respective constructs are significant, thus indicating the degree to which measurement items which are intended to measure the same construct correlate (Churchill, 1979).

The second measure of construct validity, *discriminant validity*, is “the degree to which measures of different concepts are distinct” (Bagozzi, 1981, p. 425). In contrast, discriminant validity, referred to as the rule differentiation in constructs by Bagozzi (1980, p. 376), is a state where “the cross-construct correlations among measures of causally related variables should be highly intercorrelated 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.”

Differentiation in constructs (Bagozzi, 1980) is similar to discriminant validity (Campbell & Fiske, 1959). Discriminant validity refers to the degree that measures which are intended to reflect distinctness of constructs or variables do so (Churchill, 1979). Discriminant validity, or differentiation of constructs, is established if correlations between constructs are significantly different from 1.0 (Bagozzi, 1981).

Evidence of convergent validity is present if factor loadings are ≥ 0.70 (Bagozzi, 1981; Nunnally, 1967; Tabachnick & Fidell, 2007). When using SEM to assess validity, the measurement model is deemed to provide evidence of convergent and discriminant validity if it has significant factor loadings of ≥ 0.70 and fit indices ≥ 0.90 (Shook,

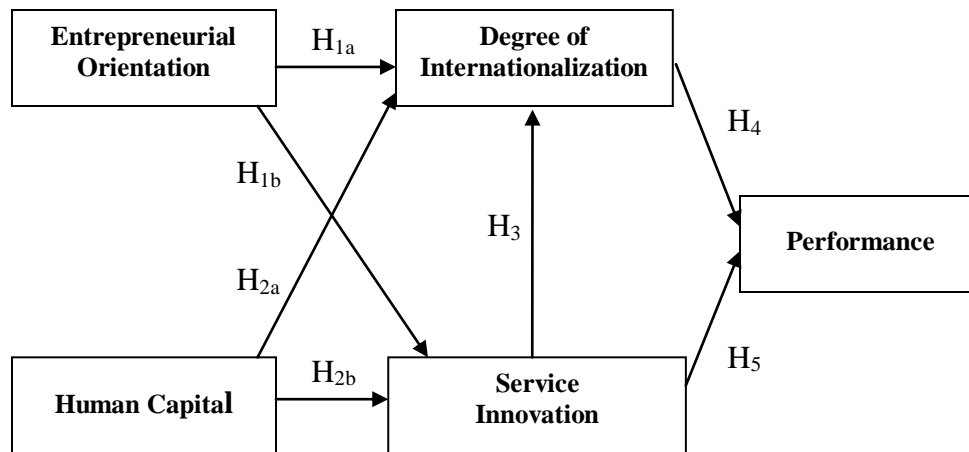
Ketchen Jr., Hult, & Kacmar, 2004). Although Anderson and Gerbing (1988) recommend that items with loadings on multiples constructs or those that exhibit low item-to-construct loadings be eliminated prior to model assessment, the measurement model and factor loadings indicated that no items loaded on multiple constructs. Therefore, this recommended process of model respecification was not undertaken.

Assessment of a theoretically hypothesized model using structural equation modeling involves causal analysis whereby a model is evaluated against the patterns of relationships among collected data. The hypothesized model depicts a dependent variable and the intent is to determine how much of the variation in the dependent construct is accounted for by the independent variables. This method of causal analysis does not by any means infer “causality.” Structural equation modeling indicates only the observed relations between the dependent and independent variables, and is not to be interpreted as the explained variation in the dependent variable due to the independent variables.

As Bagozzi describes, structural equation modeling separates out the error due to measures of variables and provides a true indication of the purified relations among unobservables (Bagozzi, 1981, p. 379). According to Bagozzi (1981), the causal modeling procedure takes into account systematic measurement error and corrects the causal relationships between constructs to derive a true value of unobserved relationships between constructs. This process results in “purified” parameter estimates (Bagozzi, 1981).

4.6.2 Path Model

Figure 3
A Path Model of
Professional Service Firm Internationalization and Performance



The path model in Figure 3 was developed based upon a thorough review of literature relevant to the model constructs in several research streams including: entrepreneurship, strategic management, management, international business, and marketing/international marketing. This research examines the relationships among an entrepreneurial orientation, human capital, a SME's degree of internationalization, service innovation, and performance. Hypotheses have been proposed and are to be evaluated using AMOS (Arbuckle, 1999) structural equation modeling software as described hereafter.

4.6.3 Estimation of Model

Since the purpose of this research is to understand the pattern of relationships and not to explain the variance of the construct, a correlation matrix served as the input to model estimation. As a result, estimates are more conservative. Maximum likelihood estimation, the most common method of estimation was also employed. Maximum likelihood estimation maximizes the probability that the observed covariances match the coefficient estimates. Model estimation involves comparison of the hypothesized conceptual model (converted to a structural model) to the observed data sample.

4.6.4 Tests of Significance and Inference

Model fit was evaluated according to the procedure recommended by Hair, Anderson, Tatham, and Black (1998), using three goodness of fit measures: absolute fit measures, incremental fit measures, and parsimonious fit measures. The first test involves absolute fit measures, which measure the overall model fit using a likelihood ratio chi-square statistic. The chi-square statistic indicates if the matrices between the hypothesized model and the actual data are statistically different at a designated significance level. The goal of the researcher is to have the hypothesized model “fit” the actual data; thus, the absolute fit measure would preferably indicate no significant difference.

A rule of thumb states that the chi-square divided by the degrees of freedom should be less than 2. However, since the chi-square statistic is sensitive to sample size, additional measures of overall fit must be used. Therefore, the “goodness-of-fit-index (GFI) and root mean square residual (RMSR) must also be examined. GFI is similar to a R^2 measure in that it represents the percent of observed covariances explained by the

covariances defined by the researcher's hypothesized structural equation model. A GFI of 0.95 is preferred; however, a GFI of 0.90 is deemed acceptable for the model's acceptance (Hair, Anderson, Tatham, & Black, 1998).

AGFI, a second but similar measure to the GFI, instead uses the mean squares instead of the sums of squares in the numerator and denominator of $(1 - \text{GFI})$ and is interpreted at acceptance levels similar to the GFI of 0.90 or higher.

RMSR, the average difference between the sample variances and covariances and the estimated population variances and covariances is acceptable at values of 0.08 or less (Hu & Bentler, 1999).

RMSEA, or root mean square error of approximation, indicates the errors of fit in the covariance matrix. Values of 0.08 or less are acceptable and a recommended lower level is 0.03.

CFI, a comparative fit index, is used to compare the model fit to other models. A range of 0.95 or above infers a good fit of the model to the actual data (Hu & Bentler, 1999).

The second test of fit is the incremental fit measure. This measure assesses the model in relation to a null model with no measurement error. Two incremental fit measures are provided: the Tucker-Lewis Index (TLI) and the normed fit index (NFI). Incremental fit levels of 0.90 are recommended (Tabachnick & Fidell, 2007).

Lastly, there are two *parsimony* fit indices which incorporate the degree of parsimony in the hypothesized model: the AIC, Akaike Information Criterion, and the CAIC, Consistent Akaike Information Criterion (Akaike, 1987; Bozdogan, 1987). These fit indices penalize for estimations using an excessive number of parameters. Both

indices range from 0 to 1 with a preference for a higher score. Parsimony indices are typically lower than the normed fit measures and typically range in the 0.50 to 0.60 range with values larger than 0.60 considered satisfactory (Blunch 2008).

4.7 Analytical Approach

The following steps were taken to analyze the data collected in India in 2008 by the research firm Insights India. Data collection and analysis was completed in two phases: a pretest sample of 100 and data analysis, followed by a full scale sample of 200 response data points.

A total pretest sample of 100 responses was collected from international business professional service SMEs in India. A pretest was undertaken to assess the psychometric properties of the measures prior to use in the full scale study. Pretest results were compared with prior empirical studies to determine if the scales are valid and reliable measures of the constructs under study.

Data collection of the pretest was acquired by a random sample from a database consisting of 4572 professional service SMEs located in India. The database of SMEs was based upon the following sources: business membership Web sites, city wide data of IT companies, service publications, service and business related journals, professional service business associations (National Entrepreneur Network; Confederation of Indian Industry or CII), and professional associations of architects, chartered accounts, medical and law practitioners, professional, etc.

Potential survey respondents who were randomly chosen from the SME database of 4572 contacts were pre-qualified via telephone and e-mail to verify: (1) industry classification, (2) employee size, and (3) international business involvement.

Prequalification was undertaken to verify sampling criteria which requires that the respondent is an owner, CEO, or key executive of a professional service firm, the firm is actively involved internationally, and the firm employs less than 500 employees. This additional prequalification step was undertaken to limit contamination of the database. A limit of one response per professional service SME was also imposed.

Data for the pretest and full scale study was acquired in various regions of India with no specific sampling in any one particular geographic area; however due the tendency of professional service firms to be located in developed areas, it is anticipated that sampling will take place more in the urban regions.

CHAPTER V

RESEARCH RESULTS

5.1 *Overview*

As indicated in Chapter IV above, this dissertation study was implemented in two phases: a pretest and a full scale study. This chapter provides a description of the pretest and full scale study, and the analytical techniques used to assess the validity and reliability of the scales in both phases of the research study. Tests of the research model and hypotheses are detailed in the second phase of the study, referred to as the full scale study. Each of the two phases of the research study is separately detailed below, including survey implementation, data preliminary analysis, reliability, and validity estimations.

5.2 *Pretest*

5.2.1 *Instrument Pretest*

Prior to implementation of the study, the survey instrument was reviewed by the marketing research firm's executives and five service business owners located in India. Initial questions and clarification of procedures with the research firm took place over a period of one week. The survey was then pretested among 10 separate Indian business executives who met the sampling criteria to validate the face validity of the instrument

and address any potential respondent errors prior to implementation of the pretest. This second preliminary review of the survey required another two weeks. As a result of this second 10 respondent group test, it was deemed necessary to make one minor modification to the survey instrument to improve understanding of the survey item terminology. The change is detailed below:

Clarification 1: The words “*or tendency*” were added to one item of the entrepreneurial orientation scale as italicized below in the exact replication of the survey item:

In general, the top managers at my firm...

Have a strong proclivity <i>or tendency</i> for low-risk projects (with normal and very certain rates of return).	1	2	3	4	5	6	7	Have a strong proclivity <i>or tendency</i> for high-risk projects (with chances of high returns).
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Upon completion of the above revision, sampling was resumed for acquisition of the remaining responses to complete the pretest sample of 100 total survey responses. The collection of 100 pretest responses was completed over a period of 1½ months.

Given satisfactory results of the pretest, the final full scale study was undertaken to gather a total of 200 survey responses for examination of the research model effects and the model’s explanatory value, as well as the validity of the scales.

5.2.2 Data Collection Procedure

A total data base data of 4572 companies across India was obtained by Insights India, a research firm located in Mumbai, India. The database contained contact information of potential sample respondents who fit the sample requirements of a SME employing 500 persons and professional service industry membership. This information

was originally procured via the following business channels: professional associations, publications, Web sites, and database vendors. The database listing was then reviewed by the researcher for correct industry sector (professional services) and inclusion in the sample frame. The research firm in Mumbai India also reviewed the firm contact information included in the database for accurate and complete company information, including complete contact information of owners, firm ownership, and size. Among the 4572 company contact listings acquired, 3127 data points or 68% were deemed appropriate for inclusion into the sample frame. The total database was reduced by 32% due to the SME being incorrectly classified in the SME professional service sector firm category or a lack of complete contact information on the professional service SME. To validate the use of respondent information prior to inclusion in the data to be analyzed, the research firm in India was instructed to reaffirm the respondent criteria by telephone prior to completion of the survey. Therefore, respondents were again pre-qualified based upon survey criteria via telephone to verify the respondent's status in the firm, employment size of the firm, international firm involvement, and contact information. Upon willingness of the respondent to complete the survey, the survey was forwarded to the individual respondent for completion.

5.2.3 Pretest Sample Descriptive Statistics

Among the 3127 potential contacts, 100 pretest responses were obtained via a random sample across geographic locations throughout India. Responses indicate that 98% were privately owned businesses with the remaining 2% being public firms. Table VIII provides a breakdown of industries represented in the sample. Specific industry

sectors are more heavily represented due to the concentration of SMEs in areas that are more economically developed and supported by governmental privatization.

Table VIII. Pretest Industry Descriptive Profile

Industry	Frequency	Percent of Sample
Computer and Information Technology	48	48%
Management and Consulting	30	30
Architecture and Engineering	7	7
Financial Services	11	11
Miscellaneous	4	4
Total	100	100%

Examination of descriptive firm factors in Table IX indicates that approximately one fourth of the sampled firms fall within the \$50,000 to \$99,999 total annual sales category, and another one quarter falls within the \$100,000 to \$249,999 total annual sales range. Therefore, nearly 50% of firms sampled reported total annual sales of \$50,000 to \$249,999. This concentration of firms indicates that the majority of professional service SME firms are generating sales at the lower end of the survey range. Interestingly, 8% of firms earn less than \$50,000 in total sales, and 18% of the firms sampled in the study reported annual total sales of \$1 million or more. The range of total sales among firms is broadly dispersed with a good representation of firms in the \$1 million to \$10 million annual sales range.

Table IX. Pretest Descriptive Statistics – Annual Sales

Sales (in U.S. Dollars)	Frequency	Percent of Firms
Under \$50,000	8	8.0%
\$50,000 - \$99,999	21	21.0
\$100,000 - \$249,999	22	22.0
\$250,000 - \$499,000	11	11.0
\$500,000 - \$999,999	10	10.0
\$1 million - \$4.9 million	14	14.0
\$5 million - \$9.9 million	9	9.0
\$10 million - \$49.9 million	4	4.0
\$50 million - \$99.9 million	0	0.0
\$100 million - \$499.9 million	1	1.0
\$500 million - \$999.9 million	0	0.0
Over \$1 billion	0	0.0
Total	100	100.0%

Examination of the number of full time employees (FTE) in Table X indicates that approximately 53% of firms employ 24 or less employees. In addition, 19% of professional service firms retained 25 to 50 full time employees, with equal representation of approximately 7% to 8% in each of the other size categories. Interestingly, although the number of employees was skewed toward the lower range, evidence of SME success is evident in the higher representations of employee numbers in the 250 to 500 categories. When combined with total annual sales information, it appears that SMEs are on average, predominantly smaller firms with moderate sales. However, these results do not infer that the categories are static. A longitudinal study of the growth in the number of SME over time may provide an indication of a slow upward shifting of SMEs, indicating greater sales and an increasing number of employees over time.

Table X. Pretest Descriptive Statistics – Full Time Employees

Number of Employees	Frequency	Percent
1–10 Employees	25	25.0%
11-24 Employees	28	28.0
25-49 Employees	19	19.0
50-74 Employees	6	6.0
75-99 Employees	7	7.0
100-249 Employees	8	8.0
250-499 Employees	7	7.0
Total	100	100.0%

Descriptive statistics indicate that the average respondent has 2.8 years of international business experience, 3.7 years of experience in the industry, speaks 1 to 2 languages, and has been employed by the firm for approximately 3 years.

Information regarding the type of professional service involvement in international business activities indicates that 27% of firms are exporters, 6% are involved in licensing arrangements, 1% of firms have established a franchise agreement, 20% have undertaken a joint venture, and 58% have established a wholly-owned subsidiary (WOS). It must be noted that these categories are not exclusive.

5.2.4 Initial Data Review of Pretest

Initial review of the pretest survey responses found all 100 responses to be usable. Therefore, no cases were eliminated. The high number of usable surveys is due to the use of a research firm for collection of data and pre-qualification of survey respondents as

opposed to postal survey mailings, which have a lower rate of response. Upon receipt of survey responses, data were visually inspected for respondent error and missing data. Upon entry of responses into a database, survey responses were again subjected to visual inspection for error and missing data. After entry into a data base, data were again reviewed for accuracy of input.

Frequency distributions were also reviewed in order to obtain a cursory understanding of frequencies of responses, means, standard deviations, and unusually skewed frequencies throughout the data collection process and again at the completion of data acquisition. Data were continually reviewed for identification of outliers and skewed findings to determine if scales were operationally responding as expected.

Upon receipt of all 100 responses, distributions of variables were plotted using scatterplots and histograms with normal bell curve overlays for review of data normality, skewness, and kurtosis. Preliminary review of the pretest data indicated that data are multivariate normal and acceptable.

5.2.5 Multicollinearity

Prior to factor analysis and examination of the reliability and validity of measures, the correlation matrix should be examined for multicollinearity and appropriate levels of correlations prior to factor analysis (Tabachnick & Fidell, 2007).

Correlations in excess of 0.30 indicate that there is sufficient correlation among variables for acceptable factor analysis results. Correlations above 0.70 between variables or factors indicate possible multicollinearity. Excessive correlations above 0.70 indicate that the variables represent one factor, thus factor analysis is not appropriate, and multicollinearity exists.

Table XI provides the correlation matrix for all variables used in this study.

Table XI: Pretest Variable Correlations

	Mean	s.d.	Age	Sector	FTE	Pub/ Pri	Int'l Exp	EO	HC	DOI	Innov	Perf
Age	9.79	10.29	1									
Sector	-	-	.08	1								
#FTE	36.00	26.00	.29**	-.17	1							
Pub/Pri	-	-	-	-	-	1						
Int'l Exper	3.69	1.32	.32**	.03	.01	-	1					
EO	5.00	0.89	-.02	-.17	.17	-	.01	1				
HC	5.60	1.17	-.17	-.15	.17	-	.02	.46**	1			
DOI	4.17	1.18	-.03	-.25*	.32**	-	.11	.40**	.31**	1		
Innov	5.26	1.05	-.13	-.24*	.05	-	.11	.38**	.30**	.41**	1	
Perf	5.19	1.01	.03	-.00	.37**	-	.06	.33**	.29**	.62**	.52**	1

**p < 0.01, *p < 0.05

Examination of the correlation matrix of variables indicates that the highest degree of correlation is 0.62 between the DOI and performance variables, indicating distinctly separate constructs and below a level of multicollinearity at 0.70.

A second test for factorability and sample adequacy is also recommended, the Kaiser-Meyer-Olkin measure of the partial correlations among variables. Values above 0.6 on the Kaiser-Meyer-Olkin measure are required for good factor analysis and reliability between pairs of variables (Tabachnick & Fidell, 2007). The Kaiser-Meyer-Olkin measure for all variable items used in this study is 0.82, indicating appropriate correlation of variables for factor analysis.

5.2.6 Pretest Reliability and Validity Assessment

Following is a review of the reliability and validity assessment of the pretest survey instrument. Construct validity was evaluated by examining the convergent and discriminant validity of the constructs using confirmatory factor analysis.

Dimensionality was also reviewed by examining item factor loadings to determine their agreement with prior studies.

Reliability

Reliability was assessed by examining the Cronbach alpha measures for all scales. The Cronbach alphas for the measures used in this study and prior research are provided in Table XII for comparison.

Table XII. Pretest Reliability Statistics

Scale	# Items	Cronbach Alpha Pretest	Cronbach Alpha Prior Research	Prior Research
Entrepreneurial Orientation	5	.81	.77 - .88	Hult, Hurley, & Knight, 2004; Hult, Snow, & Kandemir, 2003; Hult, Ketchen, & Nichols 2002; Naman & Slevin, 1993; Covin & Slevin, 1989; Khandwalla, 1977.
Human Capital	5	.96	.81 (multiple studies)	Subramaniam & Youndt, 2005; Snell & Dean, 1992; Youndt, Subramaniam, & Snell, 2004.
Service Innovation	4	.88	.71 - .89	Langerak, Hultink, & Robben, 2004; Atuahene-Gima & Ko, 2001; Song & Parry, 1996, 1997, 1999; Atuahene-Gima, 1995a, b, 1996a, b; Cooper & Kleinschmidt, 1987.
Degree of Internationalization	2	.89	.77 - .98	Pla-Barber & Escriba-Esteve, 2006; Lu & Beamish, 2001, 2004; Saarenketo, Puumalainen, Kuivalainen, & Kylaheiko, 2004; Autio, Sapienza, & Almeida, 2000; Delios & Beamish 1999; Preece, Miles, & Baetz, 1999; Zahra, Neubaum, & Huse, 1997; Cavusgil & Zou, 1994.
Performance	2	.81	.83 - .91	Contractor, Kumar, & Kundu, 2007; Hult, Cavusgil, Deligonul, & Lagerstrom, 2007; Hooley, Greenley, Cadogan, & Fahy, 2005; Hult, Ketchen, & Slater, 2005; Leonidou, Kaminarides, & Hadjimarcou, 2004; Lu & Beamish, 2004; Li & Atuahene-Gima, 2001; Lukas, Tan, & Hult, 2001 (ROA); Delios & Beamish, 1999; Chang & Chen, 1998; McDougall & Oviatt, 1996.

According to Nunnally (1967), the minimum cutoff point for evidence of reliability is 0.70. The current study's Cronbach alphas range from 0.80 to 0.96 as noted below.

The entrepreneurial orientation scale reliability estimate of 0.81 for the current study falls just below the middle in the range of 0.77 to 0.88 in prior research. Previous studies using this scale have focused on U.S manufacturing firms with two studies examining smaller firms with less than 500 employees. Only one study examined both services and manufacturing firms (Hult, Snow, & Kandemir, 2003). These authors report a reliability of 0.87, which falls in the upper range reported by previous studies.

The measure of reliability for the human capital scale in the current study is 0.96 compared to 0.81 reported in both prior studies by Youndt et al. (2004). These authors have recently developed the human capital scale as an extension of previous work by Snell and Dean (1992). The current study's reliability of 0.96 is considered strong when compared to prior reliability estimates of 0.81. Although the human capital measure was tested in over 100 industries, the high reliability of the current study may be due to the knowledge-intensive professional service sample that relies upon technically trained and experienced professional service employees.

The third reliability measure for service innovation of 0.88 falls within the upper bound range of reliabilities spanning 0.71 to 0.89 in prior studies. Several previous studies conducted by Atuahene-Gima have examined a broad base of service and manufacturing firms in Australia; while earlier researchers examined manufacturing firms in the Netherlands (Langerak, Hultink, & Robben, 2004), Japan (Song & Parry, 1999), and the U.S. (Cooper & Kleinschmidt, 1987). A focus on manufacturing or a broad industry sampling may affect reliability invariance across industries and cultures.

The current study reliability of .88 is most similar to the reliability reported in a study of Japan manufacturing firms by Song and Parry (1999). However, this current study is unique in the examination of the high knowledge professional service sectors.

Next, the degree of internationalization reliability estimate of 0.89 in comparison to the 0.77 to 0.98 range of prior studies falls in the middle of the range. The highest prior reliability of 0.98 was reported by Delios and Beamish (1999) in a study of Japanese manufacturing firms across 10 industry categories. A similar reliability of 0.95 was reported by Lu and Beamish (2001) in a study of 164 Japanese SMEs in 19 industries with an average of 321 employees per firm.

Lastly, the 0.81 reliability of the performance scale places this study slightly under the lower end of the range of 0.83 to 0.91 reported by prior research. The lowest reliability reported in prior studies focused on three industries: barber/beauty supplies, medical distributors, and electrical distributors (Neill and Rose, 2006).

Coefficient alpha reliability estimates of 0.70 are considered an acceptable conservative threshold (Shook, Ketchen Jr., Hult, & Kacmar, 2004). Overall, the current study's measures exhibit above average reliability.

Construct Validity – Discriminant and Convergent Validity

Construct validity was assessed in accordance with factor analysis described by Deshpande (Deshpande, 1982). Principal component factor analysis was conducted to obtain factor loadings in order to assess construct validity. Discriminant and convergent validity of the constructs is assessed by examining the factor loadings of the operationalized measurement scales. Although the determination of the cutoff point for assessment of validity is the researcher's choice (Tabachnick & Fidell, 2007), several

researchers suggest that convergent validity is attained when factor loadings are ≥ 0.70 (Bagozzi, 1981; Nunnally, 1967; Tabachnick & Fidell, 2007) and the average variance extracted for each factor component is $\geq 50\%$ (Anderson & Gebing, 1988). Comrey and Lee (1992) state that loadings of 0.71 are considered excellent, and factor loadings of 0.63 are very good, 0.55 are considered good, 0.45 fair, while 0.32 are poor.

Results of the principal component factor analysis with a Varimax rotation indicated five uniquely distinct factors in alignment with prior research. Examination of factor loadings indicates unidimensionality of each construct in the research model and no cross-loadings of items on multiple factors. A decision rule of 0.40 for retention of an item was chosen; however this rule was not exercised since the factor loadings of all items were well above a cutoff point of 0.40. The lowest factor loading observed was 0.63, corresponding with item 3 in the entrepreneurial orientation scale.

The factor loadings for each construct will now be reviewed for convergent and discriminant validity. A complete table of the pretest rotated factor loadings for each survey item and the corresponding survey question in response format is provided in Appendix D. A brief review of the pretest factor loadings is provided hereafter.

Entrepreneurial orientation factor loadings provided in Table XIII are all above 0.60, with two items possessing factor loadings above 0.70; thus indicating convergent validity (Bagozzi, 1981; Comrey & Lee, 1992; Nunnally, 1967; Tabachnick & Fidell, 2007). Average variance extracted for the entrepreneurial orientation construct was 57.4%, satisfying the standard of $\geq 50\%$ established by Anderson and Gebing (1988). One factor was extracted with an eigenvalue of 2.87.

Table XIII. Pretest Factor Loadings for Entrepreneurial Orientation

Entrepreneurial Orientation Items 5 items	Pretest Factor Loadings
EO1: Wide-ranging acts	.66
EO2: Initiate actions & others respond	.75
EO3: Fast to introduce new products/services	.63
EO4: Strong proclivity for high-risk projects	.78
EO5: Bold in efforts to exploit opportunities	.69
Eigenvalue	2.87
% of variance explained	57.4%
Cronbach alpha	.81

Items used for measurement of the second construct, human capital, exhibited excellent factor loadings all above 0.89, thus indicating excellent convergent validity (Bagozzi, 1981) (Table XIV). Average variance extracted was 84.5%, well above a recommended 50% level of variance explained. One component was extracted and possessed an eigenvalue of 4.22.

Table XIV. Pretest Factor Loadings for Human Capital

Human Capital Items 5 items	Pretest Factor Loadings
HC1: Employees are highly skilled	.91
HC2: Employees are best in our industry	.85
HC3: Employees are creative and bright	.89
HC4: Employees are experts in their jobs	.91
HC5: Employees develop new ideas & knowledge	.86
Eigenvalue	4.22
% of variance explained	84.5%
Cronbach alpha	.96

Service innovation items possessed factor loadings ranging from 0.75 to 0.86, exhibiting excellent convergent validity. Factor analysis yielded only one unidimensional factor and an eigenvalue of 2.97, accounting for 74.2% of variance.

Table XV. Pretest Factor Loadings for Service Innovation

Service Innovation Items 4 items	Pretest Factor Loadings
SI1: Services offer unique benefits not offered by competitors	.86
SI2: Services are radically different from competitors	.77
SI3: Services provide higher quality than competitors	.79
SI4: Services are highly innovative	.75
Eigenvalue	2.87
% of variance explained	74.2%
Cronbach alpha	.88

The measure of a SME's degree of internationalization also possesses excellent factor loadings of 0.84 and 0.83, with 70.35% of variance explained by the scale items (Table XVI). Factor analysis yielded one component with an eigenvalue 1.4. This measure has been used extensively and exhibits good psychometric properties.

Table XVI. Pretest Factor Loadings for Degree of Internationalization

Degree of Internationalization Items 2 items	Factor Loadings
DOI1: Foreign sales to total sales (FSTS)	.84
DOI2: Growth in foreign sales	.83
Eigenvalue	1.4
% of variance explained	70.35%
Cronbach alpha	.89

Lastly, both factor loadings for the items comprising the performance scale were 0.92 and accounted for 83.7% of variance. Factor analysis yielded a single unidimensional factor possessing and an eigenvalue of 1.67 (Table XVII).

Table XVII. Pretest Factor Loadings for Financial Performance

Financial Performance Items 2 items	Pretest Factor Loadings
P1: ROI	.92
P2: ROA	.92
Eigenvalue	1.67
% of variance explained	83.7%
Cronbach alpha	.81

Overall, the reliability and validity assessment of scale properties indicates that all measures possess acceptable psychometric properties as exhibited by appropriate correlations, high reliabilities, and clean factor loadings (i.e., devoid of multiple factor loadings for one item), thereby supporting convergent and discriminant validity.

As an added note, while performing factor analysis, the researcher may also choose a cutoff point for elimination of items possessing low factor loadings (Tabachnick & Fidell, 2007). This option was not implemented due to the strong loadings exhibited by all items on their respective scales. Therefore, the scales are deemed to retain convergent and discriminant validity, as reported by prior research.

The full scale study will be reviewed next. The analytical approach undertaken for the full scale study involved confirmatory factor analysis to validate dimensionality, convergent and discriminant validity, and reliability of the scales. To assess the hypothesized conceptual model, structural model and measurement model assessment

was conducted. Results of the full scale study are provided in a separate section within Chapter V.

5.3 *Full Scale Study*

To maintain consistency of the study and measurement process, the full scale study was implemented similar to the pretest, but on a larger scale. Data collection was again initiated in India by the same marketing research firm of Insights India, located in Mumbai. The survey instrument and data collection procedures remained the same. The larger database of the full scale study permits a higher level of analytics using structural equation modeling. The details of the full scale study are discussed next.

5.3.1 *Quotas Defined*

In order to complete structural equation modeling, a sample size of 200 is recommended (Hair, Anderson, Tatham, & Black, 1998). A total sample of 201 survey responses was obtained.

5.3.2 *Data Collection Procedure*

A total sample of 201 responses was obtained to complete the full scale study by randomly selecting respondents from the original data base data of 4572 companies. The contact and firm information was procured via the following: professional associations, publications, Web sites, and database vendors. The database listing was originally reviewed by the researcher for correct industry sector (professional services) and inclusion in the sample frame. The research firm in Mumbai India also reviewed the firm contact information included in the database for accurate and complete company information, including complete contact information of owners, firm ownership, and size.

Among the 4572 company contact listings acquired, 3127 data points or 68% were deemed appropriate for inclusion into the sample frame. This original database was also used for pretest sampling to retain the sampling frame characteristics. Respondents names used in the pretest were removed from the database to eliminate the chance of duplicate responses from the same firm in both the pretest and full scale study.

Survey responses were procured geographically from all regions of India. The geographic descriptive statistics are provided below in Table XVIII. The sampled respondents were again pre-screened by Insights India to confirm that the firm respondent met the sample frame requirements. When contacted, respondents were qualified based upon survey criteria via telephone to verify the respondent's status in the firm, employment size of the firm, international firm involvement, and contact information. Upon agreement, the survey was forwarded for completion and return by mail or e-mail. Among the sample frame of 3127 data points, 1112 SMEs or 36% were randomly sampled and initially contacted. Among the 1112 firms contacted, 730 or 66% were verbally confirmed via telephone as meeting the sample requirements. Among the 730 SMEs that were appropriate for inclusion into the survey and able to be contacted, 448 or were willing to receive a survey. Of the 448 surveys forwarded to respondents, 201 surveys were returned for a 28% response rate of those qualified as acceptable. Thus, an overall 6.4% rate of response from the original 3127 total sample frame size was acquired.

5.3.3 Sample Descriptive Statistics

Examination of the full scale study descriptive statistics indicates that on average, the professional service SMEs sampled have 25 to 49 employees and all but two were

privately owned businesses with the remaining two firms being publicly held. Among private SMEs sampled, 17% were sole proprietorships. The majority or 62% of SMEs offer services in 1 to 4 countries, 22.9% of SMEs do business in 5 to 8 countries, with 2% of the remaining SMEs offer services in more than 25 foreign countries.

Table XVIII provides a breakdown of data collection by geographic region.

Table XVIII: India Geographic Regions Sampled

Region	Percent of Sample
West India	54%
South India	21
North India	19
Central India	3
East India	2
Total	100%

The average age of SMEs sampled is 10 years, the median firm age being 8 years, and 3 years of age as the mode (Table XIX). The earliest inception date was 1993 and the most recent inception date was 2007.

Table XIX. Full Scale Study Firm Age

Years of Existence	Frequency	Percent
1	5	2.5
2	12	6.0
3	23	11.4
4	11	5.5
5	12	6.0
6	17	8.5
7	15	7.5
8	20	10.0
9	20	10.0
10	15	7.5
11	8	4.0
12	6	3.0
13	6	3.0
14	2	1.0
15	2	1.0
16	4	2.0
17	2	1.0
18	2	1.0
19	2	1.0
21	1	.5
22	1	.5
23	2	1.0
25	1	.5
28	3	1.5
30	1	.5
31	1	.5
32	1	.5
33	1	.5
38	1	.5
40	1	.5
42	1	.5
83	1	.5
125	1	.5
Total	201	100.0

The sample distribution of firm age indicates that near year 2000 a large number of SMEs were established, as observed in the 8 and 9 years age categories. The most prevalent years of new service SME establishment were 1999 (10%), 2000 (10%), and

2005 (11.4%). Of notable importance in Table XX is the fact that 37% of SMEs became international at inception, an additional 12% within one year, and another 12% within two years of inception. The mean number of years before firm internationalization is 3.48 years with 2.0 years as the median. Among all professional service SMEs sampled, 49% of all firms are involved in international activities within 1 year. Furthermore, 82% of SMEs internationalize within 5 years. Therefore, descriptive statistics indicate that the SMEs sampled exhibit an accelerated rate of internationalization and an emphasis on a global focused strategy within the SME's early years of the existence.

Table XX. Full Scale Study # of Years Prior to Becoming Involved in International Business Activities

Years	Frequency	Percent	Cumulative Percent
0	75	37.3%	37.3%
1	24	11.9	49.3
2	24	11.9	61.2
3	16	8.0	69.2
4	17	8.5	77.6
5	10	5.0	82.6
6	6	3.0	85.6
7	4	2.0	87.6
8	4	2.0	89.6
9	2	1.0	90.5
10	3	1.5	92.0
11	1	.5	92.5
12	2	1.0	93.5
14	2	1.0	94.5
16	4	2.0	96.5
17	1	.5	97.0
20	1	.5	97.5
21	1	.5	98.0
22	1	.5	98.5
32	1	.5	99.0
38	1	.5	99.5
40	1	.5	100.0%
Total	201	100.0%	

The frequency distribution of the SMEs' reported growth in foreign revenues in Table XXI reveals that more than 27% have experienced a foreign revenue expansion rate of over 20% and the distribution is skewed toward the higher rates of foreign revenue growth. Thus, international expansion for the majority of SMEs has been aggressive and accelerated.

Table XXI. Full Scale Study Percentage Growth in Foreign Sales

Frequency	Percent	Cumulative Percent
< 1%	5	2.5%
1% to 2%	11	8.0
3% to 5%	34	24.9
6% to 10%	36	42.8
11% to 15%	29	57.2
16% to 20%	31	72.6
Over 20%	55	100.0%
Total	201	100.0%

Of notable mention among the firms surveyed, the majority or 61.7% have established a wholly owned subsidiary, 15.4% are involved in joint ventures, and 17.9% export professional services (Table XXII). Thus, the majority of SMEs sampled have undertaken the risk of establishing a wholly owned subsidiary abroad.

Table XXII. Full Scale Study Degree of Foreign Commitment

Degree of Foreign Commitment	Frequency	Percent	Cumulative Percent
Export	36	17.9%	17.9%
Licensing	8	4.0	21.9
Franchising	2	1.0	22.9
Joint Venture	31	15.4	38.3
Wholly Owned Subsidiary	124	61.7	100.0%
Total	201	100.0%	

Table XXIII provides a detail of industries sampled. Similar to pretest results, specific industry sectors are more heavily represented due to government legislation and economic support via privatization and liberalization of the Indian economy beginning in the 1980s. Specifically, computer and information technology, representing 54% of the SME sampled, has been an industry of targeted support by the government of India and financial lending institutions. Technology intensive industries have also been a focus of growth to capitalize on India's human capital.

Table XXIII. Full Scale Study Industry Descriptive Profile

Industry	Frequency	Percent of Sample
Computer and Information Technology	109	54%
Management and Consulting	48	24
Architecture and Engineering	10	5
Health Services	10	5
Financial Services	8	4
Real Estate	4	2
Accounting/Payroll	4	2
Legal	4	2
Miscellaneous	4	2
Total	201	100%

Descriptive firm factors in Table XXIV hereafter indicate that the majority of SMEs sampled fall equally within the five categories ranging from \$50,000 to \$4.9 million total annual sales. Only 5% reported less than \$50,000 in sales, and 7.5% fall

in the \$5 million to \$9.9 million total annual sales ranges. Therefore, the majority of professional service firms sampled are profitable with over 20% of firms reporting strong sales over \$1million. The range of SMEs sampled is dispersed with good representation in categories up through \$10 million in annual sales.

Table XXIV. Full Scale Study Descriptive Statistics – Annual Sales

Sales (in U.S. Dollars)	Frequency	Percent of Firms
Under \$50,000	10	5.0%
\$50,000 - \$99,999	41	20.4
\$100,000 - \$249,999	38	18.9
\$250,000 - \$499,000	33	16.4
\$500,000 - \$999,999	33	16.4
\$1 million - \$4.9 million	26	12.9
\$5 million - \$9.9 million	15	7.5
\$10 million - \$49.9 million	4	2.0
\$50 million - \$99.9 million	0	0.0
\$100 million - \$499.9 million	1	0.5
\$500 million - \$999.9 million	0	0.0
Over \$1 billion	0	0.0
Total	201	100.0%

According to Table XXV, foreign sales represent a strong contribution to SME revenues.

Descriptive statistics indicate that nearly 33% of firms earn over 50% of total revenue from foreign sales. The largest percentage of firms, or 24.4%, earn between 25% and 49% of sales from foreign markets.

Table XXV. Full Scale Study Percentage of Total Sales Attributable to Foreign Sales

Percent of Foreign Sales	Frequency	Percent of SMEs	Cumulative Percent
Less than 5	19	9.5	9.5
6 to 10	31	15.4	24.9
11 to 24	36	17.9	42.8
25 to 49	49	24.4	67.2
50 to 74	45	22.4	89.6
Over 75	21	10.4	100.0
Total	201	100.0	

However, as is evident by the lower percentage of profit that is attributable to foreign sales in Table XXVI, foreign sales are more costly to acquire than domestic sales.

Among firms sampled, the distribution provided in Table XXVII indicates that on average, up to 50% of the SME's customer base is from foreign locations. One fourth of SMEs, the largest percentage of firms, have a customer base which is comprised of 6% to 10% of foreign customers. However, a notable number of SMEs possess a customer base of over 75% that is acquired from foreign markets.

Table XXVI. Full Scale Study Percentage of Profits Attributable to Foreign Profits

Percent of Foreign Sales	Frequency	Percent of SMEs	Cumulative Percent
Less than 5	16	8.0	9.5
6 to 10	41	20.4	24.9
11 to 24	51	25.4	42.8
25 to 49	44	21.9	67.2
50 to 74	28	13.9	89.6
Over 75	21	10.4	100.0
Total	201	100.00	

Table XXVII. Full Scale Study Percentage of Foreign Customers

Percent of Foreign Customers	Frequency	Percent of SMEs	Cumulative Percent
Less than 5	27	13.4	13.4
6 to 10	50	24.9	38.3
11 to 24	40	19.9	58.2
25 to 49	41	20.4	78.6
50 to 74	17	8.5	87.1
Over 75	26	12.9	100.0
Total	201	100.0	

Validation of the targeted SME sampling frame is confirmed since the employee size of SMEs sampled is distributed across all categories in Table XXVIII with a heavier distribution toward the smaller employee range. The mean and median number of employees falls in the 25 to 49-employee range with the mode being the 11 to 24-employee category; thus the majority of firms sampled employee 11 to 24 employees. When employee size data is combined with total annual sales, SMEs are on average, predominantly smaller firms with moderate to strong sales.

Table XXVIII. Full Scale Study Descriptive Statistics - Full Time Employees

Number of Employees	Frequency	Percent
1-10 Employees	42	20.9
11-24 Employees	52	25.9
25-49 Employees	37	18.4
50-74 Employees	17	8.5
75-99 Employees	19	9.5
100-249 Employees	20	10.0
250-499 Employees	14	7.0
Total	201	100.0

Descriptive statistics also indicate that the average respondent has 11 to 15 years of international business experience, a similar number of years experience in the industry, speaks 5 languages, and has been employed by the firm for approximately 5 years.

5.3.4 Frequency Distributions and Missing Data

A summary table of frequency statistics is provided in Table XXIX for all constructs used in the current study. All scales were measured using 7-point scales with a midpoint of 3.5. As is evident, all construct mean and median measurements fall above the midpoint of the scale.

Table XXIX. Full Scale Study Construct Frequency Statistics

	Entrepreneurial Orientation	Human Capital	Innovativeness	DOI	Performance
N Valid	201	201	201	201	201
Missing	0	0	0	0	0
Mean	5.19	5.68	5.59	4.57	5.68
Median	5.20	5.80	5.75	4.50	6.00
Mode	5.00	7.00	6.00	5.50	6.00
Std. Dev.	0.88	1.13	0.98	1.16	0.94
Minimum	2.20	1.00	3.00	1.00	1.67
Maximum	7.00	7.00	7.00	6.50	7.00

Of notable interest is the high mean and median point on the performance scale, indicating that professional service SMEs exhibit higher performance. Another worthy point of mention is the high 7.0 mode of the human capital scale. Thus, it is evident that professional service SME owners and top level executives perceive their employees as highly skilled professionals who are experts in their field and among the best in the industry. Frequency statistics for each construct under study are provided in the Appendix E.

5.3.5 Data Normality

Examination of the detrended normal plots for all variables using the full 201 database indicated that the data exhibited slight nonnormality and additional analysis was undertaken. The Kolmogorov-Smirnov and Shapiro-Wilk normality tests were both significant; therefore, the null hypothesis that the data were drawn from a normal population is rejected. Examination of data skewness found all constructs and items negatively skewed. With regard to kurtosis, all item measures of human capital and performance were positive, while the remaining constructs of entrepreneurial orientation, DOI, and innovation showed 4 out of 5 items as possessing a positive kurtosis and only 1 item for each construct having a negative kurtosis. Strong kurtosis and skewness is often the cause of nonnormality and is the cause of nonnormality in the full scale data.

Therefore, in accordance with recommendations for structural equation modeling of nonnormal multivariate data, a bootstrap technique was also employed during structural equation modeling to compensate for the lack of data normality (Byrne, 2003). Furthermore, outlier analysis is now even more important with nonnormal data and is discussed next.

5.3.6 Outliers Analysis

To increase the robustness of the study, analysis of outliers was conducted using Mahalanobis distance, or the measure of the distance of an observation from the corresponding variable mean. Examination of the Mahalanobis distance of data points indicates that 28 data points were significantly different from the mean value of similar measures. As a result, measurement model results were computed using the full database and compared to results with outliers removed. Model fit indices and the statistical

difference of the chi square (X^2) statistic were examined to determine if the fit of the model to the data significantly improved when outliers were removed. Measurement model results with outliers removed indicated that the model fit does not significantly improve, and in fact, reduced the fit of the hypothesized model to the sample data. Therefore it is concluded that inclusion of outliers does not negatively affect the hypothesized model's predictive ability.

5.3.7 *Multicollinearity*

In order to determine if multicollinearity exists among constructs, bivariate correlations were examined to determine if any correlations exceeded a value of 0.70, indicating possible multicollinearity (Tabachnick & Fidell, 2007). Examination of the Pearson correlations indicated that there is sufficient correlation among variables for factor analysis as represented by correlations above 0.30. Excessive correlations above 0.70 were not found. Table XXX below provides the correlation matrix for all variables used in the full scale study.

Table XXX. Full Scale Study Variable Correlations

	Mean	s.d.	Age	Sector	FTE	Pub/ Pri	Int'l Exp	EO	HC	DOI	Innov	Perf
Age	10.04	12.07	1									
Sector	-	-	.08	1								
#FTE	37.00	29.00	.18*	-.16*	1							
Pub/Pri	-	-	-	-	-	1						
Int'l Exper	3.66	1.35	.30**	.12	-.06	-	1					
EO	5.19	0.88	-.02	-.14*	.07	-	.07	1				
HC	5.68	1.13	-.10	-.08	-.02	-	-.04	.42**	1			
DOI	4.57	1.15	.09	-.23**	.30**	-	.02	.36**	.28**	1		
Innov	5.59	0.98	-.03	-.23**	.06	-	.06	.41**	.32**	.45**	1	
Perf	5.45	1.04	.10	-.05	.25**	-	.07	.30**	.21**	.59**	.48**	1

p < 0.05 level; ** p < 0.01 level.

Examination of the correlation matrix of variables in Table XXX indicates that the variables are below 0.70, indicating distinctly separate constructs and no evidence of multicollinearity. The Kaiser-Meyer-Olkin measure of the partial correlations among variables was also computed as a second test of factorability and sample adequacy. The Kaiser-Meyer-Olkin measure for all variable items in the full scale study was 0.88, above a level of 0.6, indicating appropriate correlation of variables for factor analysis and reliability among variables (Tabachnick & Fidell, 2007). For comparison purposes, the pretest Kaiser-Meyer-Olkin measure was found to be 0.82.

Variance Inflation Factor (VIF) and Tolerance

Examination of multicollinearity involves computation of the variance inflation factor (VIF), a process whereby each independent variable is modeled as a dependent variable and all remaining independent variables are regressed against the dependent variable. The variance which is not explained by the independent variables is termed the tolerance. The VIF for each variable is computed as $VIF = 1/\text{tolerance}$. VIF values over 5.3, and concurrently small tolerance values of < 0.19 , indicate correlations among variables over 0.90, or a high degree of multicollinearity (Hair, Anderson, Tatham, & Black, 1998).

The computed VIF and tolerance values are provided in Table XXXI. All of the computed VIF values are under 5.3 and tolerance levels are higher than 0.19, indicating multicollinearity is not a concern (Hair, Anderson, Tatham, & Black, 1998).

Table XXXI. Full Scale Study Variance Inflation Factors and Tolerance Values

Construct	Tolerance	VIF
Entrepreneurial Orientation	.73	1.36
Human Capital	.81	1.23
Degree of Internationalization	.61	1.65
Service Innovation	.68	1.48
Performance	.61	1.63

5.3.8 Full Scale Study Reliability and Validity Assessment

All measures of the full scale study were subjected to dimensionality, reliability, and validity assessments. Prior to confirmatory factor analysis (CFA) using structural equation modeling, and similar to pretest reliability and validity assessment, reliability and dimensionality was reviewed by examining Cronbach alpha measures and item factor loadings. Factor analysis with principal components was undertaken with extraction of factors using the criteria of eigenvalues ≥ 1 . Results confirmed unidimensionality of all scales and all items loaded on their intended factors, similar to pretest results. A complete table of the full scale rotated factor loadings for each survey measurement item and the corresponding survey question in response format is provided in Appendix F. A brief review of the full scale factor loadings is provided hereafter.

Reliability was assessed by examining the Cronbach alpha measures for all scales used in this study in comparison to prior research and the pretest study of this dissertation model. Results are provided in Table XXXII.

Table XXXII. Full Scale Study Reliability Statistics

Scale	# Items	Cronbach Alpha Pretest	Cronbach Alpha Full Scale Study	Cronbach Alpha Prior Research
Entrepreneurial Orientation	5	.81	.82	.77 - .88
Human Capital	5	.96	.96	.81 (multiple studies)
Service Innovation	4	.88	.88	.71 - .89
Degree of Internationalization	2	.89	.89	.77 - .98
Performance	2	.81	.89	.83 - .91

Reliability is established since all scale Cronbach alphas are above 0.70 (Nunnally, 1967) and values range from a minimum of 0.82 to a high of 0.96, as noted in Table XXXII. Factor loadings and each construct's reliability are reviewed hereafter.

The entrepreneurial orientation scale reliability estimate of 0.82 for the full scale study falls in the middle in the range of 0.77 to 0.88 in prior research (Table XXXIII). Although prior studies which have used the same scale focused on manufacturing firms with only one study examining service and manufacturing firms (Hult, Snow, & Kandemir, 2003), results of this study validate that the scale is reliable in the service industry and in the cultural context of India. Average variance extracted for the entrepreneurial orientation construct was 59%, slightly higher than the pretest and satisfying the standard of $\geq 50\%$ established by Anderson and Gebing (1988). One factor was extracted with an eigenvalue of 2.87.

Table XXXIII. Full Scale Study Factor Loadings for Entrepreneurial Orientation

Entrepreneurial Orientation Items 5 items	Factor Loadings
EO1: Wide-ranging acts	.76
EO2: Initiate actions & others respond	.73
EO3: Fast to introduce new products/services	.75
EO4: Strong proclivity for high-risk projects	.78
EO5: Bold in efforts to exploit opportunities	.82
Eigenvalue	2.87
% of variance explained	59.0%
Cronbach alpha	.82

The second measurement scale of human capital exhibited excellent convergent validity with strong factor loadings, all of which are at or above 0.89 (Bagozzi, 1981) (Table XXXIV). The Cronbach alpha for the human capital scale is 0.96. Average variance extracted was 85.6%, well above the 50% recommended limit. One component was extracted and possessed an eigenvalue of 4.27.

Table XXXIV. Full Scale Study Factor Loadings for Human Capital

Human Capital Items 5 items	Factor Loadings
HC1: Employees are highly skilled	.93
HC2: Employees are best in our industry	.89
HC3: Employees are creative and bright	.94
HC4: Employees are experts in their jobs	.94
HC5: Employees develop new ideas & knowledge	.91
Eigenvalue	4.27
% of variance explained	85.6%
Cronbach alpha	.96

The reported reliability for the human capital scale of 0.96 is similar to the pretest and higher than the 0.81 reported in prior studies by Youndt et al. (2004). The full scale study's reliability of 0.96 is considered strong when compared to prior studies' reliability estimates of 0.81. The high reliability of the current study is postulated to be the result of this study's sampling of knowledge-intensive professional service SMEs which rely upon trained and experienced professional service employees.

Service innovation items possessed factor loadings ranging from 0.82 to 0.89, exhibiting excellent convergent validity (Table XXXV). Factor analysis yielded only one unidimensional factor eigenvalue of 2.87, accounting for 74.2% of variance.

Table XXXV. Full Scale Study Factor Loadings for Service Innovation

Service Innovation Items 4 items	Factor Loadings
SI1: Services offer unique benefits not offered by competitors	.88
SI2: Services are radically different from competitors	.89
SI3: Services provide higher quality than competitors	.82
SI4: Services are highly innovative	.85
Eigenvalue	2.87
% of variance explained	74.2%
Cronbach alpha	.88

The reliability of 0.88 for service innovation falls within the upper range of reliabilities spanning 0.71 to 0.89 in prior studies and is similar to pretest results. Although this research is unique in its examination of knowledge-intensive professional service sectors, the current study reliability of 0.88 is similar to the reliability reported in an examination of Japan manufacturing firms (Song & Parry, 1999).

Both measures of a SME’s degree of internationalization also possessed good factor loadings of 0.84 each and explained 69.9% of the variance (Table XXXVI). Factor analysis yielded one component with an eigenvalue of 1.4. This measure has been used extensively and continues to exhibit good psychometric measurement properties.

The degree of internationalization (DOI) reliability estimate of 0.89 is in the upper-middle range of 0.77 to 0.98 in prior studies. Thus, the current full scale study reliability of 0.89 falls within the acceptable range of reliabilities reported in prior research and is deemed reliable.

Table XXXVI: Full Scale Study Factor Loadings for Degree of Internationalization

Degree of Internationalization Items		Factor Loadings
2 items		
DOI1: Foreign sales to total sales (FSTS)		.84
DOI2: Growth in foreign revenues		.84
Eigenvalue		1.40
% of variance explained		69.9%
Cronbach alpha		.89

Lastly, both factor loadings for the items comprising the performance scale were 0.94 and accounted for 87.6% of variance. Factor analysis yielded a single unidimensional factor eigenvalue of 1.75 (Table XXXVII). The performance scale reliability is strong and near the high end of the range of 0.83 to 0.91 reported in prior studies.

Table XXXVII. Full Scale Study Factor Loadings for Financial Performance

Financial Performance Items 2 items	Factor Loadings
P1: ROI	.94
P2: ROA	.94
Eigenvalue	1.75
% of variance explained	87.6%
Cronbach alpha	.89

In summary, Cronbach alphas for the five constructs ranged from .82 to .96, indicating satisfactory reliability. Overall, all scales possess acceptable psychometric properties as exhibited by appropriate correlations, high reliabilities, and clean factor loadings, thereby supporting convergent and discriminant validity. Additionally, variance explained by each construct measurement is strong with 4 out of 5 constructs over 70% and 3 measures with explained variance above 80%.

To increase the robustness of this analysis, the composite reliability and variance extracted for each variable of the structural equation model was calculated and is provided in Table XXXVIII (Anderson & Gerbing, 1988; Fornell & Larcker, 1981). Composite reliabilities range from 0.82 to 0.97 and are all well above the recommended 0.70 level. Average extracted variance (AEV) ranged from 0.59 to 0.87; therefore, all variables exceeded the recommended threshold of 0.50 (Hair, Anderson, Tatham, & Black, 1998). Thus, reliability of the measures is supported using multiple analytics.

Table XXXVIII. Full Scale Study Composite Reliability (CR) and Average Extracted Variance (AEV)

Construct	CR	AEV
Entrepreneurial Orientation	.89	.59
Human Capital	.97	.86
Degree of Internationalization	.82	.70
Service Innovation	.92	.74
Performance	.93	.87

Next, in accordance with a two step procedure recommended by Anderson and Gerbing (1988) which evaluates convergent and discriminant validity prior to evaluation of the structural equation model, confirmatory factor analysis was undertaken to confirm the findings of the above exploratory factor analysis and variance extraction tests.

5.3.8.1 Confirmatory Factor Analysis Procedures

Psychometric properties of the scales were assessed via confirmatory factor analysis (CFA) using AMOS (Arbuckle, 1999). Confirmatory factor analysis (CFA) is considered a more rigorous method to assess dimensionality compared to coefficient alpha, exploratory factor analysis, and item-to-total correlations (Deshpande, 1982). Rigor is enhanced by the multiple indicator requirement of a CFA measurement model (Gerbing & Anderson, 1988).

A two-stage procedure for CFA recommended by Anderson and Gerbing (1988) was utilized to assess the psychometric properties of the scales and to test the proposed model. First the measurement model was assessed for dimensionality, reliability, as well as convergent and discriminant validity. Second, the structural equation model was

evaluated for testing the hypothesized model causal relationships. CFA model fit indices discussed in Chapter IV were used to assess the degree to which the model sample covariance matrix matched a null model where all indicators are uncorrelated.

Step 1 - Measurement Model. The measurement model provides evidence of convergent and discriminant validity when parameter estimates are found to be acceptable with significant factor loadings ≥ 0.70 (Anderson & Gerbing, 1988). Additional evidence of convergent validity is achieved when the average variance extracted is ≥ 0.50 .

Confirmatory factor analysis involved an explicit test of unidimensionality defined by the measurement model where the indicator items were modeled to load on only one factor while all factors were permitted to correlate. Correlations among factors and the corresponding observable items were not restricted when testing the measurement model. Correlations among factors and across items were examined for evidence of unexplained high correlations or covariances, indicating cross loadings of items on factors. Item reliability was examined via squared multiple correlations and examination of residual errors to determine unreliable estimated relationships. High correlations among variables where no relationship has been hypothesized hints at misspecifications.

Step 2 - Structural Equation Model. When evaluating the structural model, small chi-square values indicate a better fit of the model to the patterns in the data and a significant chi-square statistic indicates that the estimated model covariance matrix differs significantly from the actual data covariance matrix. A non-significant difference indicates that the errors in the estimated model are not significant, thus lending support to acceptance of the hypothesized model.

Subsequent respecifications of a model may be tested for improved fit if a model is nested within another model, i.e. created from the first model by either constraining or freeing constraints. Two models can be evaluated using the chi-square difference test to determine if the second nested model is a statistically improved model. Absolute, incremental, and parsimonious fit indices are also examined for acceptable model fit.

5.3.8.2 Measurement Model Results

First, since cross-sectional data was collected, a Harman one-factor test (Gerbing & Anderson, 1988) was undertaken to determine if the results were inflated due to a common method variance bias. Results indicate that the independent and dependent variables do not load on one factor and one general factor accounted for only 39% of the variance. In addition, extraction using eigenvalues greater than 1 accounted for more than 72% of variance. Therefore, the one factor Harman test indicates that the dependent variable is not subject to method bias.

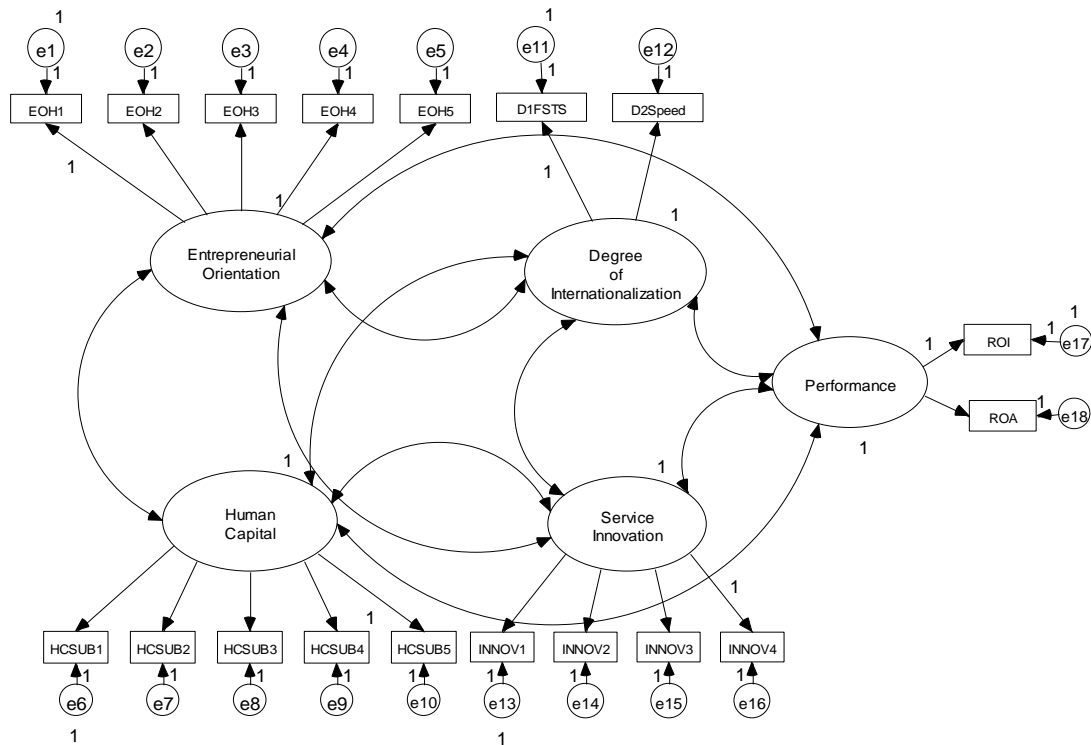
To enhance robustness, an additional test of discriminant validity was undertaken using the procedure recommended by Fornell and Larcker (1981) where the square root of average variance extracted for each construct was compared to the correlation coefficients between constructs. Variance that is attributable to each construct must be greater than the correlations among constructs; thereby confirming distinct and separate constructs. Table XXXIX provides evidence that this condition is satisfied since the square root values on the diagonal are greater than the between construct correlations.

Table XXXIX. Full Scale Study Square Root of Average Extracted Variance (Diagonal) & Construct Correlations

	EO	HC	DOI	Innov.	Perf
EO	.768				
HC	.417	.925			
DOI	.364	.275	.836		
Innov.	.406	.316	.451	.862	
Perf.	.395	.256	.638	.542	.936

Next, the measurement model in Figure 4 was developed and depicts the manifest item measures for each latent construct and the hypothesized relationships.

Figure 4
A Measurement Model of Professional Service Firm Internationalization and Performance



The measurement model was estimated using the covariance matrix of the indicators for the exogenous and endogenous constructs as input. The measurement model resulted in an acceptable fit to the data according to the most stable model CFA fit indices (Gerbing & Anderson, 1992; Hu & Bentler 1999). The recommended indices of Delta2 index and the comparative fit index (CFI) are a better indication of model fit since they consider sample size and the degrees of freedom. The measurement model possessed a Delta2 IFI of 0.82 and a CFI of 0.82, similar to the accepted measurement model fit measures (Delta2 IFI = 0.84 and CFI = 0.81) reported by Hult, Snow, Kandemir (2003) which utilized the same entrepreneurial orientation scale.

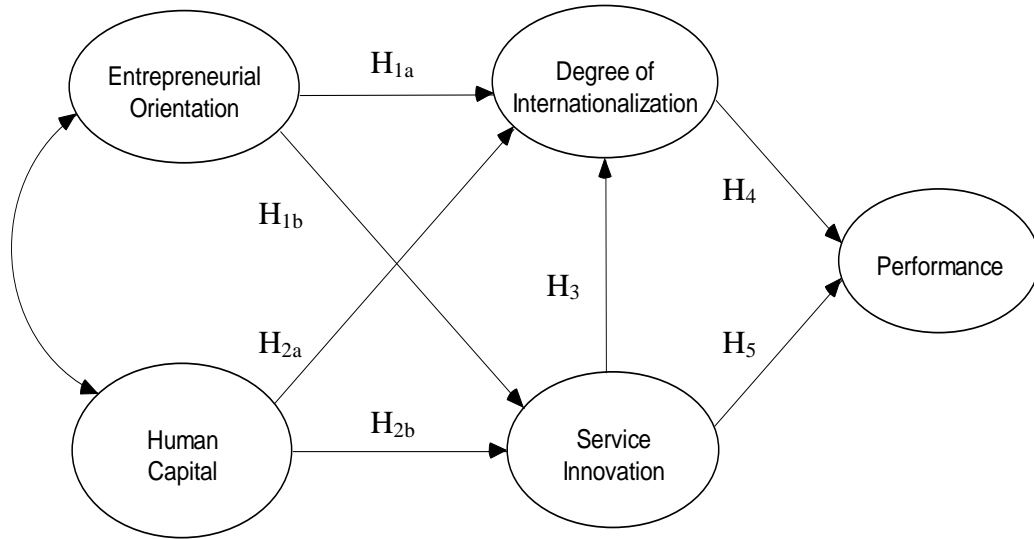
All model item path coefficients were also significant at the 0.001 level, indicating convergent validity. All correlations among factor constructs were significantly different from 1.0 and not significantly above 0.70, the level indicating a high degree of multicollinearity (Tabachnick & Fidell, 2007); thus discriminant validity is established. Examination of standardized residuals also confirmed an appropriate fit with no statistically significant residuals. Given an acceptable measurement model fit, the next step involved a test of the structural model.

5.4 *Analysis of the Model*

The measurement model was then converted to a structural equation model to incorporate the relationships between the manifest indicators and latent variables. The construct-level structural equation model is depicted in Figure 5.

Figure 5

Construct-Level Structural Equation Model

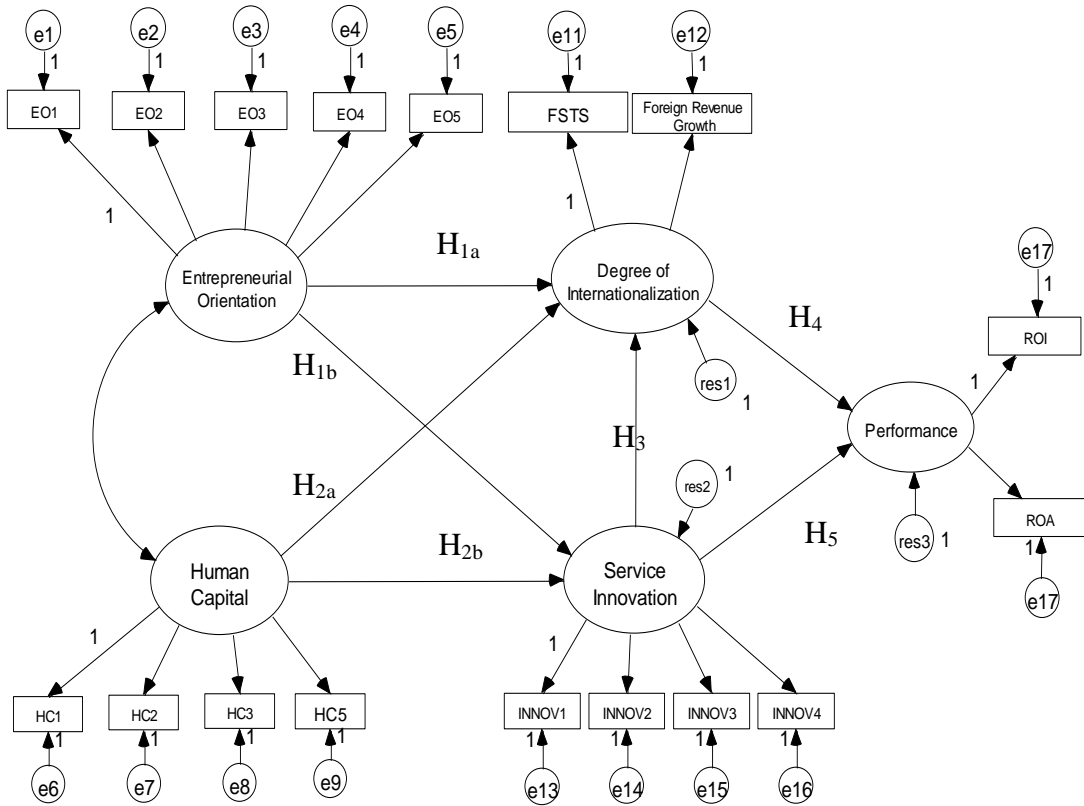


5.4.1 Structural Equation Model Fit

CFA of the structural model was undertaken to estimate the full structural model using maximum likelihood estimation to examine the model fit. Model fit was assessed using the model chi-square goodness of fit test statistic with the associated degrees of freedom. The maximum likelihood method of estimation is recommended with moderate sized samples of 100 to 200 (Tabachnick & Fidell, 2007) and is a recommended estimation method with nonnormality. The full structural equation model including measurement items is provided in Figure 6.

Figure 6

Structural Equation Model with Measurement Items



Overall model fit. The structural model with all 18 items yielded a chi-square test statistic χ^2 of 217.73 with 149 df, and a χ^2/df ratio of 1.44. Although the model possessed good fit indices (GFI of 0.91, Delta2 of 0.97 and CFI of 0.97), the chi-square test statistic was statistically significant, indicating a significant difference between the correlation matrix of the sampled data and the hypothesized model. Therefore, in accordance with the recommendations of Gerbing and Anderson (Gerbing & Anderson, 1988), model respecification was undertaken to improve model fit and parsimony. Only one item of

the human capital scale which exhibited measurement duplication, as evidenced by high correlations with the remaining scale items, was eliminated to improve model fit. In further support for the elimination of this item without contributing to specification or measurement error, the item showed discriminant validity and did not improperly loading on another construct. The item was also selected since it exhibited the highest correlation with other human capital construct items; thus it was concluded that the removal of this single item, question four of the human capital scale, did not significantly affect construct measurement. The structural model also included control variables for the effects of firm age, industry, size (measured as the number of full time employees), ownership, and international experience.

The respecified structural model chi-square test statistic indicated a good model fit to the sample data. The chi-square statistic of the model was statistically nonsignificant (χ^2 of 159.63 with 131 df, and a χ^2 /df ratio of 1.22), indicating a good fit of the model to the sample data. The ratio of the chi-square test statistic to the degrees of freedom fell within the recommended range of between one and two, lending further support to model acceptance. The refined model possessed a Delta2 of 0.98 and a CFI of 0.98, indicating an excellent fit of the model to the data. However, since the chi-square statistic is affected by sample size, review of additional model fit indices is necessary. An acceptable model fit was further evidenced by the following fit indices in Table XL. Multiple fit indices were examined to consider biases inherent in each fit measure.

Table XL: Structural Equation Model Fit Indices

Model	RMR	RMSEA	GFI	AGFI	PGFI
Default model	.08	.04	.92	.88	.63
Independence model	.478	.248	.339	.266	.305
Acceptable level (Hair et al., 1998)	.08	.04	.90	.90	.60

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI	PRATIO	PNFI	PCFI
Default model	.92	.90	.99	.97	.98	.77	.71	.75
Acceptable level (Hair et al., 1998)	.90	.90	.90	.90	.90	.60	.60	.60

First, the default model absolute fit indices include the following: RMSEA = 0.04, RMR = 0.08, GFI = 0.92, AGFI = 0.88 and CFI = 0.98. These indices confirmed an adequate fit of the model to the data. The model RMSEA of 0.04, which is well below the recommended level of 0.08, indicated that the errors in the fit of the covariance matrix are very small. A value of 0.08 or less indicates a reasonable error of approximation, while a value of 0.05 or less indicates a close fit of the model in relation to the degrees of freedom. The good fit of the model is also confirmed by the RMR value of 0.08. The CFI of 0.98 is a normed fit index with a range from 0 to 1 and is a particularly useful for estimating model fit with small samples (Hu & Bentler, 1999). In summary, the absolute fit indices provide evidence of a good model fit to the data.

Second, the incremental fit indices for the hypothesized model include the TLI (Tucker-Lewis Index) and the NFI (normed fit index), both of which were above 0.90. The hypothesized model TLI_{Default Model} of 0.97 indicated an excellent fit, while the NFI_{Default Model} of 0.92 also confirmed a good fit of the data to the model.

Third, measures of parsimony were examined to determine if the model contained excessive paths indicative of an overfit model which causes the parsimony measures to decline. Parsimony measures ranging from 0.55 to 0.60 are often reported, while measures over 0.60 are preferred. The $PRATIO_{\text{Default Model}}$, $PNFI_{\text{Default Model}}$, and $PCFI_{\text{Default Model}}$ were 0.77, 0.71, and 0.75 respectively, which provided strong support that the model is parsimonious. Two supplemental parsimony-adjusted measures, the $AIC_{\text{Default Model}}$ of 300.10 and the $CAIC_{\text{Default Model}}$ of 554.00, also substantiated that the hypothesized conceptual model is much improved in comparison to the fully unrestricted model $AIC_{\text{Independence Model}}$ of 2304.25 and the $CAIC_{\text{Independence Model}}$ of 2386.01. Given these measures, the model was deemed parsimonious.

Control variable effects. Additionally, examination of the statistical significance of the control variables indicated that the number of full time employees of the SME affects the SME's degree of internationalization. Furthermore, the number of years of international experience was not significant; thus, a concern that international experience may have confounded the effects of human capital within the hypothesized model is not valid.

Sample size. The Hoelter recommended sample size for a 0.05 and 0.01 significance level ranged from 199 to 215. The 201 sample data points collected in the current study fall within the stated range; thus, the current study sample size was confirmed as appropriate given the estimated causal relationships.

In summary, it may be concluded that the model exhibits a good fit to the sample data. Hence, empirical support for the hypothesized model has been established and now the statistical significance of the individual hypothesized relationships among constructs depicted in the model will be examined.

5.4.2. Hypothesis Testing

Testing of the model hypothesized relationships involves examination of each of the model path coefficients for significance given an acceptable model fit. Similar to regression, the null hypothesis states that the path coefficient is equal to zero and is tested for statistical significance. If the path coefficient is statistically significant, there is support for the hypothesized predicted causal relationship. A summary of the hypotheses is provided on the following page in Table XLI.

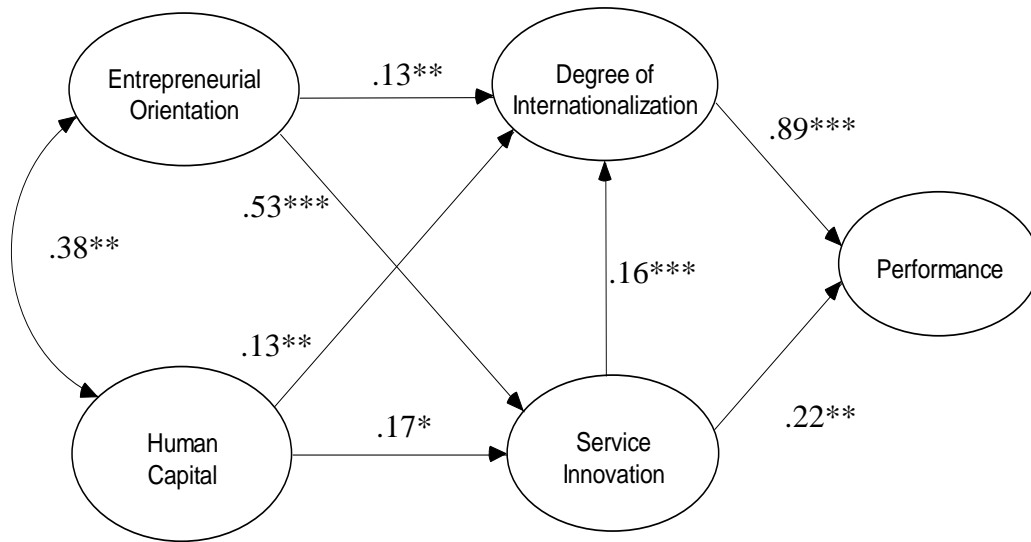
Table XLI. Summary of Hypotheses

<i>Hypothesis</i>	<i>Relationship</i>	<i>Predicted Effect</i>
Hypothesis 1a	A professional service SME's entrepreneurial orientation is positively related to the firm's degree of internationalization.	Positive
Hypothesis 1b	A professional service SME's entrepreneurial orientation is positively related to the firm's service innovation.	Positive
Hypothesis 2a	A professional service SME's human capital is positively related to the firm's degree of internationalization.	Positive
Hypothesis 2b	A professional service SME's human capital is positively related to the firm's service innovation.	Positive
Hypothesis 3	A professional service SME's service innovation is positively related to the firm's degree of Internationalization.	Positive
Hypothesis 4	A professional service SME's degree of internationalization is positively related to the firm's performance.	Positive
Hypothesis 5	A professional service SME's service innovation is positively related to the firm's performance.	Positive

The structural equation model and the standardized parameter estimates are shown in Figure 7.

Figure 7

Structural Equation Model with Standardized Parameter Estimates



• p < 0.05 level; ** p < 0.01 level; ***p < 0.0001

Table XLII provides a summary of the parameter estimates, standard error, critical ratio, and p-value for each hypothesized path.

Table XLII. Regression Weights *Default model*

	Path	Estimate	S.E.	C.R.	P
H1a	EO ---> DOI	.13	.047	2.73	.006
H1b	EO ---> Innov	.53	.094	5.57	***
H2a	HC ---> Innov	.17	.086	2.02	.043
H2b	HC ---> DOI	.13	.046	2.88	.004
H3	Innov ---> DOI	.16	.048	3.31	***
H4	DOI ---> Perf	.89	.225	4.44	***
H5	Innov ---> Perf	.22	.074	2.95	.003

Each hypothesis will now be examined individually.

5.4.2.1 Hypothesis 1a. *A professional service SME's entrepreneurial orientation is positively related to the firm's degree of internationalization.*

In support of H1a, an entrepreneurial orientation was found to have a positive and significant relationship with a SME's degree of internationalization. The path coefficient is 0.13 and the C.R. is 2.73; indicating that the relationship is significant at a .01 level (two tailed). Thus, an entrepreneurial orientation is confirmed as an antecedent to international expansion of professional service SMEs.

5.4.2.2 Hypothesis 1b. *A professional service SME's entrepreneurial orientation is positively related to the firm's service innovation.*

The hypothesized positive relationship of entrepreneurial orientation with service innovation is confirmed to be significant ($p < 0.001$ level). The path coefficient is 0.53 and possesses a C.R. of 5.57. Findings confirm the separate effects of a professional service SME's entrepreneurial orientation and service innovation.

5.4.2.3. Hypothesis 2a. *A professional service SME's human capital is positively related to the firm's degree of internationalization.*

Human capital is proposed to have a positive relationship with a SME's degree of internationalization as stated in H2a. The path from human capital to a SME's degree of internationalization was supported at a 0.01 significance level. The path coefficient is 0.13 and has a reported C.R. of 2.88. Support for H2a highlights the contributing value of the human component to internationalization of professional service SMEs.

5.4.2.4 Hypothesis 2b. *A professional service SME's human capital is positively related to the firm's service innovation.*

In support of H2b, human capital was found to have a significant positive relationship with service innovation. The path coefficient is 0.17 and the C.R. is 2.02, finding the relationship significant at a .05 significance level. Thus, service innovation is a consequence of highly skilled professional human capital of the firm.

5.4.2.5 Hypothesis 3. *A professional service SME's service innovation is positively related to the firm's degree of internationalization.*

H3 posits that service innovation has a positive relationship with SME international expansion. Results indicate that the path from service innovation to the degree of SME internationalization is significant, thus H3 is supported. The path coefficient of 0.16 is significant at a .001 level and possesses a corresponding C. R. value of 3.31.

5.4.2.6 Hypothesis 4. *A professional service SME's degree of internationalization is positively related to the firm's performance.*

The SME's degree of internationalization is hypothesized to have a positive significant relationship with SME performance. H6 is supported at a .001 level as is evidenced by the C. R. of 4.44. The path coefficient of 0.89 indicates the presence of a strong correlation between a professional service SME's degree of internationalization and financial performance.

5.4.2.7 Hypothesis 5. *A professional service SME's service innovation is positively related to the firm's performance.*

Lastly, consistent with H7, support was also found for a significant positive relationship between service innovation and professional service SME performance at a .01 significance level. The path coefficient is 0.22 and the C. R. is 2.95.

In summary, all hypothesized relationships in the proposed model of SME internationalization and performance were supported. Examination of path coefficients reveals strong relationships between a professional service SME's entrepreneurial orientation and service innovation as well as the relationship between a SME's degree of internationalization and financial performance relative to other model constructs. A summary of research findings are provided in Table XLIII hereafter.

Table XLIII. Summary of Hypotheses and Results

<i>Hypothesis</i>	<i>Relationship</i>	<i>Predicted Effect</i>	<i>Research Findings</i>
Hypothesis 1a	A professional service SME's entrepreneurial orientation is positively related to the firm's degree of internationalization.	Positive	Supported
Hypothesis 1b	A professional service SME's entrepreneurial orientation is positively related to the firm's service innovation.	Positive	Supported
Hypothesis 2a	A professional service SME's human capital is positively related to the firm's degree of internationalization.	Positive	Supported
Hypothesis 2b	A professional service SME's human capital is positively related to the firm's service innovation.	Positive	Supported
Hypothesis 3	A professional service SME's service innovation is positively related to the firm's degree of internationalization.	Positive	Supported
Hypothesis 4	A professional service SME's degree of internationalization is positively related to the firm's performance.	Positive	Supported
Hypothesis 5	A professional service SME's service innovation is positively related to the firm's performance.	Positive	Supported

CHAPTER VI

DISCUSSION

6.1 *Discussion and Implications*

This research study was undertaken to gain knowledge of how professional service SMEs in the emerging market of India grow and prosper in a global economy. Examination of 201 professional service SMEs in India reveals that internationalization is accelerated and profitable, as evidenced by: (1) 37% of SMEs being international at inception, (2) above average aggressive growth rates in foreign sales since inception, (3) nearly 50% of SMEs involved in international business within five years, (4) 75% of firms reporting at least 6% growth in foreign sales, and (5) 27% of firms reporting foreign sales growth over 20%. In comparison to key competitors, 95% of SMEs reported overall performance was better than their key competitors' performance, 83.6% reported a higher ROI, and 80% stated that their ROA was better than their key competitors. With regard to the source of SME revenues, 50% of sales are generated in foreign markets with a slightly lower percentage of firm profits attributable to the foreign sales.

These findings are in contrast to a study by Leonidou, Kaminarides, and Hadjimarcou (2004) that found that manufacturing SMEs typically first established a

domestic presence then gradually expanded abroad. In contrast, this study indicates that professional service SMEs in India experience strong foreign sales growth and early international expansion; thereby providing support for accelerated internationalization and refuting the traditional process stage theory of internationalization (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975).

Results from structural equation modeling used in this research study provide further empirical evidence of accelerated internationalization of professional service SMEs and the relationships among an entrepreneurial orientation, human capital, the SME's degree of internationalization, service innovation, and financial performance. Specifically, this study provides empirical support that a SME's entrepreneurial orientation and human capital facilitate internationalization and service innovation, both of which in turn enhance performance. It is also important to note that these empirical results demonstrate a mediating effect of service innovation such that entrepreneurship and human capital positively contribute to profitable international expansion both directly and indirectly through service innovation. Therefore, service innovation is beneficial and may be necessary for international expansion in some global markets.

As is evident by all confirmed hypothesized relationships, strategic actions provide the context within which innovations are developed and commercialized (Ireland, Hitt, Camp, & Sexton, 2001). Entrepreneurship identifies and exploits market opportunities. Service innovation uses human capital's knowledge of markets to satisfy global service customers through value creation. As a result, entrepreneurship, professional service human capital, and innovation are a source of value and wealth creation that facilitates international expansion and profitability of SMEs in emerging

markets. The importance of professional service human resources confirmed by this study supports prior research (Bloodgood, Sapienza, & Almeida, 1996; Wei & Lau, 2008) and also confirms that human capital is a source of innovation in professional services (Bontis, 1998).

Human capital, which possesses knowledge of markets and customer needs for value creation, plays an important role in domestic and foreign market growth. In the case of professional service SMEs in India, service value derived from the knowledge and skills possessed by professional service personnel positively influenced international expansion and service innovation for enhanced financial performance. These findings are congruent with a meta-analysis of innovation and its antecedents conducted by Henard and Szymanski (2001), which indicates that human resources are dominant drivers of new product success and firm performance. Empirical support provided by this study substantiates that professional service SMEs leverage intangible human capital resources for improved performance, a finding that is consistent with Styles, Patterson, and La (2005).

It must be noted that this research study highlights the value of human capital resources, particularly in knowledge-intensive service industries. Professional service firms examined in this study employ the highest level of human capital resources. Thus, hiring intelligent and innovative professional service individuals is one means to improve SME performance. Findings of this study also corroborate those of Atuahene-Gima (1996a), which indicate that innovativeness in human resources is a critical factor of service success. Innovation allows a firm to leverage the tacit nature of human resource assets without the risk associated with the loss of a committed physical resource. As a

result, service innovation may take place more quickly and easily and result in faster market growth. The observed positive leveraging effect of service human resources for accelerated internationalization and enhanced profitability may be due to the greater ease of adaptation, responsiveness, and flexibility of intangible resources. Findings indicate that professional SMEs in India have experienced strong foreign sales growth rates in new markets that are dissimilar to home markets. Furthermore, since the knowledge of professional service human capital is highly skilled and tacit in nature, service innovations are less likely to be duplicated, which increases the financial returns from service innovation.

Findings of this study regarding service innovation provide valuable insight for professional services. Service innovation capabilities facilitate a greater *scale* of global expansion by improving the SMEs ability to serve diverse customers' needs and also increase the *speed* of expansion. This study confirms that innovation is an important contributor to global expansion and profitability of professional service SMEs in emerging markets; thereby supporting recent research that innovativeness enhances performance, regardless of the institutional economic context (Luk, Yau, Sin, Tse, Chow, & Lee 2008).

Insights gained from this study are also extremely important to SMEs and firm strategy. This research supports prior research by Qian & Li (2003) which indicates that an innovation strategy provides important benefits to small firms. Improved performance in small firms may be the result of employee innovativeness and the ability of a small organization to implement an innovative strategy. Entrepreneurial behavior of employees allows SMEs to gain and maintain strong performance in new markets and against well-

established firms in highly competitive environments. The results of this study dispel the notion that resource constraints of all smaller firms limit growth and profitability.

Insights gained from this study also provide a strong contribution to service and international business research, which has mixed findings on the relationship between international expansion and firm performance. In this study, internationalization of professional service SMEs had a positive direct effect on financial performance.

Furthermore, having controlled for service industry sector, firm size, years of international experience, and firm age, marginal support ($p = .05$, *path estimate* = .03) was found for differences in financial performance across service sectors sampled.

Therefore, this study concludes that differences exist in the ease and pace of service internationalization across service sectors and agrees with the work of Javalgi, Griffith, and White (2003), Lovelock and Yip, (1996), and Patterson and Cicic (1995).

Furthermore, the current study also indicates that significant differences ($p = .001$, *path estimate* = .09) exist in the performance of professional service SMEs when firm size (number of FTEs) is taken into consideration. In summary, performance is significantly affected by the service industry sector and the number of employees of the professional service SME. Therefore, findings may not be generalized across all service sectors and SME firm sizes.

This study's findings hint at the complicated relationships that exist between a professional service SME's entrepreneurial human capital, service innovation, internationalization, and financial performance. Managerial implications are now provided to guide owners and managers of professional service SMEs when considering international expansion.

6.2 *Managerial Considerations*

Professional services pose many challenges to managers. Research findings from the current study provide insight into the following questions:

Q: Are the performance benefits of service international expansion greater than the costs and are the effects the same for every industry, every size of firm, and every service product?

Results of this study indicate that internationalization increases performance of professional services SMEs, has slightly different effects across service sectors, and increases with the number of full-time employees (FTEs). Therefore, the magnitude of performance benefits to internationalization is expected to be specific to each service sector. It is important to note, however, that the age or number of years of international business experience of the firm does not impact SME performance. This indicates that internationalization may enhance performance even in the firm's first year of existence.

Q: Do services support international expansion better due to the lower costs associated with expansion of non-physical facilities?

Findings indicate that intangible resources have a positive effect on professional service SME internationalization. Alternatively, research specific to manufacturing firms indicates that internationalization has a negative, U-shaped, and at times, inverted-U-shaped effect on performance due to the added costs of fixed asset investments needed for expansion. In contrast, professional service internationalization does not require full duplication of operational processes in a foreign market since services involve intangible human resources. Furthermore, services differ in their degree of separability between the service provider and customer, which has implications for service delivery in foreign markets and potential affects on service quality. In the case of professional service sectors examined in this study, foreign market expansion of

professional services was rapid and profitable with no reduction in financial performance. It is believed that this relationship is due to leveraging of highly skilled, intangible human capital resources specific to the firms of service sectors included in this study sample.

Q: Do new cultural markets require special professional service skills? What are the key skills needed by professional service personnel?

Although service internationalization is facilitated by highly skilled human capital, service innovation is also a means by which SMEs expand internationally. Therefore, innovative behavior is desired in professional service employees since professional services typically involve greater customization due to the more complex needs of clients. For example, professional financial advisors of high net worth clients require a working knowledge of investment management skills, tax planning, and estate planning to create customized financial solutions to serve specific client needs.

Q: Are professional services inclined to profitable international expansion due to higher knowledge skills of professional service employees and the higher costs of professional services?

Professional service internationalization is profitable and may be accelerated as evidenced in the current study's high growth rate of foreign revenues. International expansion of knowledge-intensive professional services can be highly profitable, as evidenced by 75% of firms reporting at least 6% growth in foreign sales and 27% of firms experiencing foreign sales growth over 20%. In comparison to key competitors, 95% of firms reported that their overall performance is better than their key competitors, 83.6% reported a better ROI, and 80% stated that their ROA was better than their key competitors.

Q: What strategic approaches are needed to survive in the increasingly sophisticated and connected global marketplace?

An entrepreneurial strategic orientation is confirmed as having a positive effect on SME internationalization, which in turn, positively improved SME performance. In addition, an innovation strategy also enhanced SME internationalization and performance. Thus, the two firms strategies of entrepreneurship and innovation combined provide a strong positive influence on SME performance in global markets.

Q: What is a critical resource for successful and profitable SME business expansion?

Human capital is a critical contributor to the domestic and global expansion of professional service SMEs. Human capital may be successfully leveraged and resists duplication by competitors due to intangibility, specificity, inimitability, and heterogeneity. The tacit component of highly skilled professional service human resources is a firm-specific valuable resource that should be protected and nurtured; hence intellectual capital should be protected and retained.

Results of this study indicate that performance is affected more strongly by international expansion than innovation; however, innovative services are an important contributor to international expansion. Thus, managerial commitment and resource support for service innovation must be encouraged for both international expansion and improved performance. Improvements to enhance the value of service human capital, such as additional service personnel training and technology support, as well as improved new service development processes, may increase service innovation, which in turn facilitates international market growth and greater profitability.

Q: How important are human resource policies in professional service firm success?

Human resources of professional service firms possess knowledge of the consumer, the market environment, and the professional service product. Human resource practices of highly skilled, professional service firms are one aspect of the knowledge management of professional service resources. The effectiveness of human resource management policies directly affects professional service resources. The capabilities of knowledge creating resources are dependent upon historical human resource choices of firms, which are historically path dependent. Many important issues of knowledge management in professional services should be addressed. Managers must understand the value of human resources in professional SMEs service sectors is a function of: (1) the required degree of developed professional skills and specialized knowledge, (2) the amount of customer contact and service customization, and (3) capital intensity, and (4) the degree of separability among service products.

In addition, investments to increase the value of human resources may not provide immediate results. The speed with which human capital positively affects SME's internationalization may be a function of the length of training or learning of professional service personnel. To facilitate a faster speed of internationalization, a firm may hire experienced employees. Mixed reports of the effects of innovation on firm internationalization and performance in prior research may be due to the delay in time for the effects of investments in resources, such as human capital, to be reflected in operational results.

The ability to leverage human resources may be also limited by the degree of interactivity that can still be managed while maintaining service quality. For some

service sectors, beyond a maximum level of customer contact or interactivity per service delivery personnel, service quality may begin to decline and performance may suffer. At this point, the firm may be required to make additional investments in human resources to maintain quality levels. Depending on the service sector, the relationship between service customization and performance may exhibit an inverted-U shaped relationship. Therefore, the relationship between service personnel, customer interactivity, and performance in each service sector may vary over time.

In conclusion, managerial insight gained from this research provides smaller firms with the motive to appreciate the value and development of entrepreneurial human capital as a source of wealth creation in professional service SMEs.

6.3 *Theoretical Contributions*

The major theoretical contribution of this study's research findings is to theories of internationalization within the international business discipline. Empirical findings provide evidence that entrepreneurship, human capital resources, and innovation are contributors to professional service SME internationalization in an emerging market. Unlike prior research which has focused on firm expansion from developed economies to emerging economies, the unique focus of this study is the entrepreneurial SME as a domestic firm in an emerging market and outward international expansion across borders; a neglected research area (Bruton, Ahlstrom, & Obloj, 2008).

The significant finding of service innovation as positively contributing to internationalization is a second contribution that provides general support for the International Product Life Cycle (IPLC) theory of internationalization. However, in contrast to the IPLC, this study finds that innovation is not always initiated in the

domestic market first since 37% of SMEs sampled reported being international upon inception. Yet, the significant pathway between innovation and internationalization provides evidence that innovation is a facilitator of global expansion.

The third contribution to internationalization theories involves confirmation of human resources as positively affecting professional service SME internationalization, thus providing support for the resource-based view (RBV) and the knowledge-based view (KBV). The positive significant finding for human capital resources as contributing to professional service SME internationalization substantiates that heterogeneous firm resources are a source of performance differentials among firms. This study's findings highlight how SMEs leverage human capital resources for global expansion and profitability.

With regard to entrepreneurship literature, this research answers a call to address a gap in international entrepreneur research (McDougall & Oviatt, 2000; Styles & Seymour, 2006). Specifically, this research provides empirical evidence of the effects of an entrepreneur orientation on firm internationalization and further contributes by converging two distinct and separate streams of research on firm internationalization. This study integrates the entrepreneurship and international business literature streams by providing evidence of the relationship between constructs examined separately by these two fields. This study contributes to entrepreneurship literature by confirming that an entrepreneurial orientation is a key contributor to service internationalization. Within international business literature, this study confirms that both human knowledge and innovation have a positive effect on professional service SME internationalization.

A second contribution to entrepreneurship literature involves the significant positive relationship between innovation and performance. Empirical support for the positive effect of innovation on performance provides support for Schumpeterian theory, which states that innovation is the source of differentials in performance among firms.

Findings of this study also contribute to service research, which is limited in the area of professional services and the contributors to service internationalization. Given the importance of services in the global economy, the lack of research in this area is stark. This research study's findings provide empirical evidence of the antecedents to service internationalization, factors contributing to performance differentials among service firms, and the important role of human service personnel as valuable firm resources; all of which are contributions to services research.

The growth and success of India's SMEs as being a major contributor to international services trade is evidence of new forces which alter the means by which internationalization and global financial success is achieved and maintained. The success of professional service SMEs evidenced in this research validates that even small firms achieve internationalization. Research has only recently begun to address the special resources and capabilities which facilitate small firm internationalization and allow SMEs to overcome limitations in employee size and resources, such as financial capital and international business experience. Accelerated internationalization of SMEs is not fully understood nor has the impact of cultural and country factors been adequately addressed. These findings validate the value of entrepreneurship, human capital, and innovation for SMEs professional service internationalization in the cultural context of India.

Lastly, this study contributes to strategy research by concluding that a positive relationship between internationalization and performance exists for professional service SMEs whose human capital exhibit entrepreneurial and innovative service behavior. Confirmation that firm size does not limit global expansion is also a contribution of this research to strategy literature.

Overall, this dissertation provides empirical support for a multidisciplinary integrative framework which contributes to the entrepreneurship, marketing, strategy, management, and international business literatures. This study confirms the value of an entrepreneurial orientation, human capital resources, and service innovation as antecedents that contribute to the internationalization and performance of SMEs. The multi-disciplinary contribution of this study aids in a better understanding of the evolving global service landscape.

From the perspective of global economic development, these findings provide a valuable contribution to research which seeks to understand how emerging economies develop and prosper. In the case of the emerging market setting of India, the highly educated professional service SME owners and employees possess the intellect and entrepreneurial capabilities to internationalize at accelerated speeds into a highly competitive global marketplace. Thus, small firms can overcome resource deficiencies and expand internationally at accelerated rates from lesser-developed economies. Profitable and accelerated international expansion of India's SMEs observed in this study was particularly evident in high technology service sectors. Furthermore, as evidenced by the majority of SMEs having established a wholly-owned subsidiary, the capabilities of India's human capital and low costs associated with expansion of intangible service

resources play an important role in accelerated cross border entry into new markets. Two key factors, highly skilled human capital and entrepreneurial behavior, contribute to the success of SMEs in the emerging market of India.

6.4 *Limitations*

The specific nature and focus of this study creates limitations. Due to the limited cross-sectional industry sampling methodology, generalizability of findings is limited. A wider sampling of service sectors would provide an indication of possible differing effects of human capital across various service characteristics; however, extensive SME data collection is difficult to obtain. In the current study, generalizability has been exchanged for greater accuracy of the model's explanatory power within service sectors. In support of the focused approach of the current study, research indicates that service SME internationalization varies across and within industries (Bell, 1995; Bloodgood, Sapienza, & Almeida, 1996; Cainelli, Evangelista, & Savona, 2006; Calof & Beamish, 1995).

Additionally, the limitation of 500 employees per firm for SME categorization also limits insight into the findings. Among professional SMEs that are financially successful at higher degrees of internationalization, one obvious method to expand service profitability is to grow the firm by increasing the number of service personnel. A time series study which examines the internationalization and performance of professional services firms that transition from SME to multi-national enterprise (MNE) status may provide insight into the resource needs of service SMEs as they experience international expansion. Examination of SME performance given the change in service employees at various levels of internationalization may indicate the optimum leveraging

of service employees per customers served in each service sector for revenue maximization, as advocated by customer relationship management research.

Lastly, it should also be noted that the data collection method used in this study is also a limitation since the process involved a self-report survey format and a single informant SME firm-level response. Multiple methods and multiple informant data collection procedures would reduce method bias and improve reliability of findings by reducing measurement error.

6.5 *Future Research*

Each construct examined in this study deserves greater research attention. An entrepreneurial orientation is a topic of renewed discussion regarding the state of its dimensions as antecedents and behavioral outcomes, and the domain of entrepreneurship in an international context. Human capital should be further refined to describe what constitutes knowledge and attitudes versus aptitudes, skills, and behavior. Service innovation suffers from a lack of defined clarity and comprehensiveness in areas such as service personnel capabilities, a time dimension of response speed, and the difference between service personnel interpersonal qualities, the service product, and service product outcomes. In addition, differences between a service firm's degree of internationalization and performance have not yet been fully explored.

Extending this thought, the lack of specificity regarding researchers' use of a degree of internationalization measures creates a greater need for clarity of the antecedents and the relationships to specific performance consequences of the "black box" of international diversification. Mixed results of internationalization studies

highlight the inability to generalize findings across industries and geographic expansion patterns, which highlights the need for additional research in all industries.

External factors will also shed light on firm factors which create and sustain profitability given demand uncertainty, competitive intensity, and environmental turbulence. Foreign market cultural differences are also believed to affect the propensity to exhibit an entrepreneurial orientation and entrepreneurial behavior (Hitt, Tihanyi, Miller, & Connelly, 2006). Therefore, this study should be empirically tested in other national contexts to determine the model's contribution and equivalency under various contexts and cultures (Malhotra, Ulgado, Argarwal, & Baalbaki, 1994; Malhotra, Ulgado, Agarwal, Shainesh, & Wu, 2005; Parasuraman, Zeithaml, & Malhotra, 2005). The emphasis of various dimensions of an entrepreneur orientation by different cultures given diverse contexts may yield varying influences on firm internationalization and predispose certain cultures to competitive advantage creation. The need for contextual clarity is already a topic of interest in international corporate entrepreneurship research.

Longitudinal studies are also recommended to assess the impact of learning on evolving human capital skills and the resulting effect on fulfilling consumers' service needs.

Future research should also examine the human factors that engender rapid and profitable SME internationalization, and how these key service resources can be nurtured or acquired in a global labor workforce. The value of tacit knowledge and professional service skills is increasingly important as research continues to highlight the value of human skills such as leadership, strategic orientations, innovation, and experience in new international contexts. Thus, service providers of highly valued tacit services reap benefits associated with possessing unique, nonreplicable service skills and

nontransferable service assets (Barney, 1991; Barney, Wright, Ketchen, 2001). The measurement and preservation of professional service intellectual capital assets is imperative for the retention of key proprietary knowledge assets and the preservation of value creating service competencies that sustain performance and create a competitive advantage. Thus, knowledge is a matter of utmost strategic importance to a service provider's long-term performance and competitive advantage (Kotabe, Murray, & Javalgi, 1998); and is particularly the case in the global professional service marketplace.

6.6 *Conclusions*

This research study was undertaken to gain knowledge of how professional service SMEs in India, an emerging market, grow, and prosper in a global economy. The emergence of India as one of the fastest growing economies in the world is largely attributable to the rapid growth of services and service exports. India has emerged as a leading contributor to global services trade and now possesses a strong comparative advantage in services (UNCTAD, 2008). Liberalization and privatization of India's economy have increased competitive intensity by allowing easier entry of new firms into markets; yet India's professional SMEs have grown and prospered in such a competitive environment. The question arises, "What factors may have contributed to India's rapid service growth and success?" Privatization of state owned enterprises transforms industries, economies, and firms by encouraging entrepreneurship and risk-taking (Aulakh & Kotabe, 2008). Greater institutional economic freedom encourages entrepreneurial new services in a market-based economy (Gohmann, Hobbs, & McCrickard, 2008) and entrepreneurial behavior facilitates global expansion.

In conclusion, the questions remain as to whether privatization and liberalization in India created the entrepreneurial culture, which was a key driver of the success of professional service SMEs in this study; or, if an entrepreneurial orientation inherently exists within human capital since the firm is only “the humanly devised constraints that structure human interactions” (North, 1990, p. 3). The answer has strong implications for a strategic approach to the planned development of emerging economies.

This research resolves some questions regarding the internationalization and performance of professional service SMEs, yet also sheds light on the need for additional research. Research can only progress our knowledge in a dynamic global marketplace. Change requires continued innovation in business practices and continued research.

BIBLIOGRAPHY

- Aaby, N.-E., & Slater, S. F. (1989). Management influences on export performance: A review of the empirical literature 1978-88. *International Marketing Review*, 6(4), 7-27.
- Agarwal, S., Erramilli, M. K., & Dev, C. S. (2003). Market orientation and performance in service firms: Role of innovation. *Journal of Services Marketing*, 17(1), 68-83.
- Ahuja, G., Lampert, C. M., & Tandon, V. (2008). Chapter 1: Moving beyond Schumpeter: Management research on the determinants of technological innovation. *The Academy of Management Annals*, 2(1), 1-98.
- Akaike, H. (1987). Factor analysis and AID. *Psychometrika*, 52, 317-332.
- Aldrich, H., & Auster, E. R. (1986). Even dwarfs started small: Liabilities of age and size and their strategic implications. *Research in Organizational Behavior*, 8, 165-199.
- Ali, A., & Swiercz, P. M. (1991). Firm size and export behavior: Lessons from the midwest. *Journal of Small Business Management*, 29(2), 71-78.
- Andersen, O. (1993). On the internationalization process of firms: A critical analysis. *Journal of International Business Studies*, 24(2), 209-231.
- Anderson, E., & Gatignon, H. (1986). Models of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies*, 17(3), 1-26.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Andersson, S. (2000). The internationalization of the firm from an entrepreneurial perspective. *International Studies of Management & Organization*, 30(1), 63-93.
- Andersson, S. (2004). Internationalization in different industrial contexts. *Journal of Business Venturing*, 19(6), 851-875.
- Andersson, S., & Wictor, I. (2003). Innovative internationalisation in new firms: Born globals—the Swedish case. *Journal of International Entrepreneurship*, 1(3), 249-276.
- Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing*, 16(5), 495-527.
- Arbuckle, J. L. (1999) *Amos 4.0 user's guide*. SmallWaters Corporation, Chicago, IL, USA.

- Athanassiou, N., & Nigh, D. (2002). The impact of the top management team's international business experience on the firm's internationalization: Social networks at work. *Management International Review (MIR)*, 42(2), 157-181.
- Atuahene-Gima, K. (1995a). An exploratory analysis of the impact of market orientation on new product performance. *Journal of Product Innovation Management*, 12(4), 275-293.
- Atuahene-Gima, K. (1995b). The influence of new product factors on export propensity and performance: An empirical analysis. *Journal of International Marketing*, 3(2), 11-28.
- Atuahene-Gima, K. (1996a). Differential potency of factors affecting innovation performance in manufacturing and services firms in Australia. *Journal of Product Innovation Management*, 13(1), 35-52.
- Atuahene-Gima, K. (1996b). Market orientation and innovation. *Journal of Business Research*, 35(2), 93-103.
- Atuahene-Gima, K., & Ko, A. (2001). An empirical investigation of the effect of market orientation and entrepreneurship orientation alignment on product innovation. *Organization Science*, 12(1), 54-74.
- Atuahene-Gima, K., & Li, H. (2002). When does trust matter? Antecedents and contingent effects of supervisee trust on performance in selling new products in china and the United States. *Journal of Marketing*, 66(3), 61-81.
- Atuahene-Gima, K., Li, H., & De Luca, L. M. (2006). The contingent value of marketing strategy innovativeness for product development performance in Chinese new technology ventures. *Industrial Marketing Management*, 35(3), 359-372.
- Atuahene-Gima, K., & Murray, J. Y. (2004). Antecedents and outcomes of marketing strategy comprehensiveness. *Journal of Marketing*, 68(4), 33-46.
- Atuahene-Gima, K., Slater, S. F., & Olson, E. M. (2005). The contingent value of responsive and proactive market orientations for new product program performance. *Journal of Product Innovation Management*, 22(6), 464-482.
- Aulakh, P. S., & Kotabe, M. (2008). Institutional changes and organizational transformation in developing economies. *Journal of International Management*, 14(3), 209-216.
- Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5), 909-924.

- Bagozzi, R. P. (1980). *Causal models in marketing*. New York: John Wiley & Sons.
- Bagozzi, R. P. (1981). Evaluating structural equation models with unobservable variables and measurement error: A comment. *Journal of Marketing Research (JMR)*, 18(3), 375-381.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74-95.
- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36(3), 421-458.
- Baird, I. S., Lyles, M. A., & Orris, J. B. (1994). The choice of international strategies by small businesses. *Journal of Small Business Management*, 32(1), 48-59.
- Barkema, H. G., & Vermeulen, F. (1998). International expansion through start-up or acquisition: A learning perspective. *Academy of Management Journal*, 41(1), 7-26.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-121.
- Barney, J., Wright, M., & Ketchen Jr., D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625-642.
- Bell, J. (1995). The internationalization of small computer software firms. *European Journal of Marketing*, 29(8), 60-75.
- Bell, J., Crick, D., & Young, S. (2004). Small firm internationalization and business strategy: An exploratory study of knowledge-intensive and traditional manufacturing firms in the UK. *International Small Business Journal*, 22(1), 23-56.
- Bell, J., McNaughton, R., Young, S., & Crick, D. (2003). Towards an integrative model of small firm internationalization. *Journal of International Entrepreneurship*, 1, 339-362.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606.
- Bentler, P. M., & Weeks, D. G. (1980). Linear structural equation with latent variables. *Psychometrika*, 45, 289-308.
- Bentler, P. M., & Yuan, K. H. (1999). Structural equation modeling with small samples: Test statistics. *Multivariate Behavioral Research*, 34(2), 181-198.

- Bilkey, W. J., & Tesar, G. (1977). The export behavior of smaller-sized Wisconsin manufacturing firms. *Journal of International Business Studies*, 8(1), 93-98.
- Bloodgood, J. M., & Morrow, J. L. (2003). Strategic organizational change: Exploring the roles of environmental structure, internal conscious awareness and knowledge. *Journal of Management Studies*, 40(7), 1761-1782.
- Bloodgood, J. M., Sapienza, H. J., & Almeida, J. G. (1996). The internationalization of new high-potential U.S. ventures: Antecedents and outcomes. *Entrepreneurship: Theory & Practice*, 20(4), 61-76.
- Blunch, N. J. (2008). *Introduction to structural equation modeling using SPSS and AMOS*. London: Sage.
- Bollen, L., Vergauwen, P., & Schnieders, S. (2005). Linking intellectual capital and intellectual property to company performance. *Management Decision*, 43(9), 1161-1185.
- Bontis, N. (1998). Intellectual capital: An exploratory study that develops measures and models. *Management Decision*, 36(2), 63-77.
- Bontis, N. (1999). Managing organizational knowledge by diagnosing intellectual capital. *International Journal of Technology Management*, 18(5-8), 433-462.
- Bontis, N., Seleim, A., & Ashour, A. (2007). Human capital and organizational performance: A study of Egyptian software companies. *Management Decision*, 45(4), 789-801.
- Boter, H., & Holmquist, C. (1996). Industry characteristics and internationalization processes in small firms. *Journal of Business Venturing*, 11(6), 471-488.
- Bozdogan, H. (1987). Model selection and Akaike's information criteria (AIC): The general theory and its analytical extensions. *Psychometrika*, 52, 345-370.
- Brakensiek, F. C., & Drucker, P. F. (2002). Knowledge management for EHS professionals. *Occupational Health & Safety*, 71(1), 72-75.
- Brock, D. M., Yaffe, T., & Dembovsky, M. (2006). International diversification and performance: A study of global law firms. *Journal of International Management*, 12(4), 473-489.
- Brockman, B. K., & Morgan, R. M. (2003). The role of existing knowledge in new product innovativeness and performance. *Decision Sciences*, 34(2), 385-420.
- Brown, S. L., & Eisenhardt, K. M. (1995). Product development: Past research, present findings, and future directions. *Academy of Management Review*, 20(2), 343-378.

- Bruton, G. D., Ahlstrom, D., & Obloj, K. (2008). Entrepreneurship in emerging economies: Where are we today and where should the research go in the future. *Entrepreneurship Theory & Practice*, 32(1), 1-14.
- Burgelman, R. A. (1983). A process model of internal corporate venturing in the diversified major firm. *Administrative Science Quarterly*, 28(2), 223-244.
- Burns, T., & Stalker, G. M. (1961). *The management of innovation*. London: Tavistock.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cainelli, G., Evangelista, R., & Savona, M. (2004). The impact of innovation on economic performance in services. *Service Industries Journal*, 24(1), 116-130.
- Cainelli, G., Evangelista, R., & Savona, M. (2006). Innovation and economic performance in services: A firm-level analysis. *Cambridge Journal of Economics*, 30(3), 435-458.
- Calantone, R. J., Cavusgil, S. T., Schmidt, J. B., & Shin, G. C. (2004). Internationalization and the dynamics of product adaptation—an empirical investigation. *Journal of Product Innovation Management*, 21(3), 185-198.
- Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515-524.
- Calantone, R. J., Chan, K., & Cui, A. S. (2006). Decomposing product innovativeness and its effects on new product success. *Journal of Product Innovation Management*, 23(5), 408-421.
- Calantone, R. J., & Cooper, R. G. (1979). A discriminant model for identifying scenarios of industrial new product failure. *Journal of the Academy of Marketing Science*, 7(3), 163-183.
- Calantone, R. J., & Cooper, R. G. (1981). New product scenarios: Prospects for success. *Journal of Marketing*, 45(2), 48-60.
- Calof, J. L. (1993). The impact of size on internationalization. *Journal of Small Business Management*, 31(4), 60-69.
- Calof, J. L., & Beamish, P. W. (1995). Adapting to foreign markets: Explaining internationalization. *International Business Review*, 4(2), 115-132.

- Campbell, D. R., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56(2), 81-105.
- Capar, N., & Kotabe, M. (2003). The relationship between international diversification and performance in service firms. *Journal of International Business Studies*, 34(4), 345-355.
- Capon, N., Farley, J. U., & Hoenig, S. (1990). Determinants of financial performance: A meta-analysis. *Management Science*, 36(10), 1143-1159.
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Beverly Hills and London: Sage.
- Cavusgil, S. T. (1984). Differences among exporting firms based on their degree of internationalization. *Journal of Business Research*, 12(2), 195-208.
- Cavusgil, S. T., Calantone, R. J., & Zhao, Y. (2003). Tacit knowledge transfer and firm innovation capability. *Journal of Business & Industrial Marketing*, 18(1), 6-22.
- Cavusgil, S. T., Shaoming, Z., & Naidu, G. M. (1993). Product and promotion adaptation in export ventures: An empirical investigation. *Journal of International Business Studies*, 24(3), 479-506.
- Cavusgil, S. T., & Zou, S. (1994). Marketing strategy-performance relationship: An investigation of the empirical link in export. *Journal of Marketing*, 58(1), 1-22.
- Chandler, G. N., & Hanks, S. H. (1994). Founder competence, the environment, and venture performance. *Entrepreneurship: Theory & Practice*, 18(3), 77-89.
- Chandy, R. K., & Tellis, G. J. (2000). The incumbent's curse? Incumbency, size, and radical product innovation. *Journal of Marketing*, 64(3), 1-17.
- Chang, T., & Chen, S. (1998). Market orientation, service quality and business profitability: A conceptual model and empirical. *Journal of Services Marketing*, 12(6) 246-265.
- Chari, M. D. R., Devaraj, S., & David, P. (2007). International diversification and firm performance: Role of information technology investments. *Journal of World Business*, 42(2), 184-197.
- Chetty, S. K., & Hamilton, R. T. (1993). Firm-level determinants of export performance: A meta-analysis. *International Marketing Review*, 10(3), 26-35.
- Choonwoo, L., Kyungmook, L., & Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, 22(6/7), 615-641.

- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(2), 64-73.
- CIA. (2007). World Factbook – India. Retrieved April 26, 2008, from <https://www.cia.gov/library/publications/the-world-factbook/geos/in.html>
- Cicic, M., Patterson, P., & Shoham, A. (2002). Antecedents of international performance: A service firms' perspective. *European Journal of Marketing*, 36(9/10), 1103-1118.
- Clark, T., Rajaratnam, D., & Smith, T. (1996). Toward a theory of international services: Marketing intangibles in a world of nations. *Journal of International Marketing*, 4(2), 9-28.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152.
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum & Associates.
- Contractor, F. J., Kumar, V. K., & Kundu, S. K. (2007). Nature of the relationship between international expansion and performance: The case of emerging market firms. *Journal of World Business*, 42(4), 401-417.
- Contractor, F. J., Kundu, S. K., & Hsu, C. (2003). A three-stage theory of international expansion: the link between multinationality and performance in the service sector. *Journal of International Business Studies*, 34(1), 5-18.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation design and analysis issues in field settings*. Boston: Houghton Mifflin.
- Cooper, R. G., & de Brentani, U. (1991). New industrial financial services: What distinguishes the winners. *Journal of Product Innovation Management*, 8(2), 75-90.
- Cooper, R. G., Easingwood, C. J., Edgett, S., Kleinschmidt, E. J., & Storey, C. (1994). What distinguishes the top performing new products in financial services. *Journal of Product Innovation Management*, 11(4), 281-289.
- Cooper, R. G., & Kleinschmidt, E. J. (1987). New products: What separates winners from losers? *Journal of Product Innovation Management*, 4(3), 169-184.
- Coviello, N. E., & McAuley, A. (1999). Internationalisation and the smaller firm: A review of contemporary empirical research. *Management International Review (MIR)*, 39(3), 223-256.

- Covin, J. G., & Slevin, D. P. (1986). The development and testing of an organizational-level entrepreneurship scale. In R. Ronstadt, J.A. Hornaday, R. Peterson, and K.H. Vesper, (Eds.), *Frontiers of Entrepreneurship Research—1986*. Wellesley, MA: Babson College.
- Covin, J. G., & Slevin, D. P. (1988). The influence of organization structure on the utility of an entrepreneurial top management style. *Journal of Management Studies*, 25(3), 217-234.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75-87.
- Covin, J. G., & Slevin, D. P. (1990). New venture strategic posture, structure, and performance: An industry life cycle analysis. *Journal of Business Venturing*, 5(2), 123-136.
- Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship: Theory & Practice*, 16(1), 7-25.
- Covin, J. G., Slevin, D. P., & Covin, T. J. (1990). Content and performance of growth-seeking strategies: A comparison of small firms in high-and low-technology industries. *Journal of Business Venturing*, 5(6), 391-403.
- Covin, J. G., Slevin, D. P., & Schultz, R. L. (1994). Implementing strategic missions: Effective strategic, structural and tactical choices. *Journal of Management Studies*, 31(4), 481-505.
- Crick, D., & Jones, M. V. (2000). Small high-technology firms and international high-technology markets. *Journal of International Marketing*, 8(2), 63-85.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 1(2), 64-73.
- Daft, R. L. (1978). A dual-core model of organizational innovation. *Academy of Management Journal*, 21(2), 193-210.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555-590.
- Damanpour, F., & Wischnevsky, D. J. (2006). Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations. *Journal of Engineering & Technology Management*, 23(4), 269-291.

- Damanpour, F., Szabat, K. A., & Evan, W. M. (1989). The relationship between types of innovation and organizational performance. *Journal of Management Studies*, 26(6), 587-601.
- Darroch, J., & McNaughton, R. (2003). Beyond market orientation: Knowledge management and the innovativeness of New Zealand firms. *European Journal of Marketing*, 37(3/4), 572-593.
- Day, G. S., & Wensley, R. (1988). Assessing advantage: A framework for diagnosing competitive superiority. *Journal of Marketing*, 52(2), 1-21.
- de Brentani, U. (1989). Success and failure in new industrial services. *Journal of Product Innovation Management*, 6(4), 239-258.
- de Brentani, U. (1991). Success factors in developing new business services. *European Journal of Marketing*, 25(2), 33-59.
- De Clercq, D., Sapienza, H., & Crijns, H. (2005). The internationalization of small and medium-sized firms. *Small Business Economics*, 24(4), 409-419.
- de Pablos, P. O. (2004). Human resource management systems and their role in the development of strategic resources: Empirical evidence. *Journal of European Industrial Training*, 28(6), 474-489.
- Delios, A., & Beamish, P. W. (1999). Geographic scope, product diversification and the corporate performance of Japanese firms. *Strategic Management Journal*, 20(8), 711-727.
- Denis, D. J., Denis, D. K., & Yost, K. (2002). Global diversification, industrial diversification, and firm value. *Journal of Finance*, 57(5), 1951-1979.
- Deshpande, R. (1982). The organizational context of market research use. *Journal of Marketing*, 46(4), 91-101.
- Deshpande, R., Farley, J. U., & Webster Jr., F. E. (1993). Corporate culture customer orientation, and innovativeness in Japanese firms: A quadrad analysis. *Journal of Marketing*, 57(1), 23-37.
- Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial strategy making and firm performance: Tests of contingency and configurational models. *Strategic Management Journal*, 18(9), 677-695.
- Dunning, J. H. (1977). Trade, location of economic activity and the MNE: A search for an eclectic approach. In B. Ohlin, P. O. Hesselborn, & P. M. Wijkman, *The international allocation of economic activity*, London: Macmillan, 395-418.

- Dunning, J. H. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(1), 1-31.
- Dunning, J. H. (1989). Multinational enterprises and the growth of services: Some conceptual and theoretical issues. *Service Industries Journal*, 9(1), 5-39.
- Dunning, J. H., & Kundu, S. K. (1995). The internationalization of the hotel industry -- some new findings from a field study. *Management International Review (MIR)*, 35(2), 101-133.
- Durand, R., & Coeurderoy, R. (2001). Age, order of entry, strategic orientation, and organizational performance. *Journal of Business Venturing*, 16(5), 471-495.
- Drucker, Peter F. (2002). The Discipline of Innovation. *Harvard Business Review*, 80(8), 95-103.
- Edelman, L. F., Brush, C. G., & Manolova, T. (2005). Co-alignment in the resource--performance relationship: Strategy as mediator. *Journal of Business Venturing*, 20(3), 359-383.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10/11), 1105-1122.
- Elango, B. 2006. An Empirical Analysis of the Internationalization-Performance Relationship Across Emerging Market Firms. *Multinational Business Review*, 14(1), 21-44.
- Erramilli, M. K., & D'Souza, D. E. (1995). Uncertainty and foreign direct investment: The role of moderators. *International Marketing Review*, 12(3), 47-61.
- Erramilli, M. K., & Rao, C. P. (1990). Choice of foreign market entry modes by service firms: Role of market knowledge. *Management International Review (MIR)*, 30(2), 135-150.
- Erramilli, M. K., & Rao, C. P. (1993). Service firms' international entry-mode choice: A modified transaction-cost analysis approach. *Journal of Marketing*, 57(3), 19-39.
- Fiegenbaum, A., Shaver, J. M., & Yeung, B. (1997). Which firms expand to the middle east: The experience of U.S. multinationals. *Strategic Management Journal*, 18(2), 141-148.
- Fieleke, N. S. (1995). The Uruguay round of trade negotiations: An overview. *New England Economic Review*, 3-12.
- Fillis, I. (2001). Small firm internationalisation: An investigative survey and future research directions. *Management Decision*, 39(9), 767-784.

- Fletcher, D. (2004). International entrepreneurship and the small business. *Entrepreneurship & Regional Development*, 16(4), 289-305.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1) 39-50.
- Gatignon, H., Tushman, M. L., Smith, W., & Anderson, P. (2002). A structural approach to assessing innovation: Construct development of innovation locus, type, and characteristics. *Management Science*, 48(9), 1103-1122.
- Gatignon, H., & Xuereb, J. M. (1997). Strategic orientation of the firm and new product performance. *Journal of Marketing Research (JMR)*, 34(1), 77-90.
- George, G., Wiklund, J., & Zahra, S. A. (2005). Ownership and the internationalization of small firms. *Journal of Management*, 31(2), 210-233.
- Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research (JMR)*, 25(2), 186-192.
- Gerbing, D. W., & Anderson, J. C. (1992). Monte Carlo evaluations of goodness of fit indices for structural equation models. *Sociological Methods and Research*, 21(2), 132-160.
- Geringer, J. M., Beamish, P. W., & da Costa, R. C. (1989). Diversification strategy and internationalization: Implications for MNE performance. *Strategic Management Journal*, 10(2), 109-119.
- Ghoshal, S. (1987). Global strategy: An organizing framework. *Strategic Management Journal*, 8(5), 425-440.
- Gil, A., Nakos, G., Brouthers, L. E., & Brouthers, K. D. (2006). Country-specific strategy and new venture formation in central and East Europe. *International Business Review*, 15(1), 1-13.
- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 42(4), 750-783.
- Gohmann, S. F., Hobbs, B. K., & McCrickard, M. (2008). Economic freedom and service industry growth in the United States. *Entrepreneurship Theory and Practice*, 32(5), 855-874.

- Gordon, J., & Gupta, P. (2004), Understanding India's services revolution, Asia and Pacific Department, IMF Working Paper. Presented at the IMF-NCAER, India-China conference in November 2003.
- Grant, R. M. (1987). Multinationality and performance among British manufacturing companies. *Journal of International Business Studies*, 18(3), 79-89.
- Grant, R. M. (1991). A resource-based theory of competitive advantage: implications for strategy formulation, *California Management Journal*, 33(3), 114-35.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, 109-122.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, Special (Winter), 109-122.
- Greenwood, R., & Empson, L. (2003). The professional partnership: Relic or exemplary form of governance? *Organization Studies*, 24(6), 909-933.
- Griffith, D. A., Noble, S. M., & Chen, Q. (2006). The performance implications of entrepreneurial proclivity: A dynamic capabilities approach. *Journal of Retailing*, 82(1), 51-62.
- Gronroos, C. (1999). Internationalization strategies for services. *Journal of Services Marketing*, 13(4/5), 290-298.
- Hage, J. (1980). *Theories of organizations*. New York: Wiley.
- Hair Jr., J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*. (5th ed.). Upper Saddle River, NJ: Prentice Hall.
- Hall, C. (2002). *Profile of SMEs and SME issues in APEC, 1990-2000*, for the APEC Small and Medium Enterprises Working Group in cooperation with PECC (Pacific Economic Cooperation Council).
- Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market orientation and organizational performance: Is innovation a missing link? *Journal of Marketing*, 62(4), 30-45.
- Hedlund, G., & Kverneland, A. (1985). Are strategies for foreign markets changing? The case of Swedish investment in Japan. *International Studies of Management & Organization*, 15(2), 41-59.
- Henard, D. H., & Szymanski, D. M. (2001). Why some new products are more successful than others. *Journal of Marketing Research (JMR)*, 38(3), 362-375.

- Herrmann, P., & Datta, D. K. (2005). Relationships between top management team characteristics and international diversification: An empirical investigation. *British Journal of Management*, 16(1), 69-78.
- Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2005). *Entrepreneurship*, 6th ed, New York: McGraw Hill.
- Hitt, M. A., Bierman, L., Uhlenbruck, K., & Shimizu, K. (2003). *The internationalization of professional service firms: Effects of human capital and social capital*. Academy of Management Proceedings, B1-B6.
- Hitt, M. A., Bierman, L., Uhlenbruck, K., & Shimizu, K. (2006). The importance of resources in the internationalization of professional service firms: The good, the bad, and the ugly. *Academy of Management Journal*, 49(6), 1137-1157.
- Hitt, M. A., Hoskisson, R. E., & Ireland, R. D. (1994). A mid-range theory of the interactive effects of international and product diversification on innovation and performance. *Journal of Management*, 20(2), 297-327.
- Hitt, M. A., Hoskisson, R. E., & Kim, H. (1997). International diversification: Effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal*, 40(4), 767-798.
- Hitt, M. A., Keats, B. W., & DeMarie, S. M. (1998). Navigating in the new competitive landscape: Building strategic flexibility and competitive advantage in the 21st century. *Academy of Management Executive*, 12(4), 22-42.
- Hitt, M. A., Tihanyi, L., Miller, T., & Connelly, B. (2006). International diversification: Antecedents, outcomes, and moderators. *Journal of Management*, 32(6), 831-867.
- Holden, A. C. (1986). Small businesses can market in Europe: Results from a survey of U.S. Exporters. *Journal of Small Business Management*, 24(1), 22-29.
- Hollenstein, H. (2005). Determinants of international activities: Are SMEs different? *Small Business Economics*, 24(5), 431-450.
- Hooley, G. J., Greenley, G. E., Cadogan, J. W., & Fahy, J. (2005). The performance impact of marketing resources. *Journal of Business Research*, 58(1), 18-27.
- Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal*, 3(3), 249-267.
- Hoskisson, R. E., Johnson, R. A., & Moesel, D. D. (1994). Corporate divestiture intensity in restructuring firms: Effects of governance, strategy, and performance. *Academy of Management Journal*, 37(5), 1207-1251.

- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Hult, G. T. M., Cavusgil, S. T., Kiyak, T., Deligonul, S., & Lagerstrom, K. (2007). What drives performance in globally focused marketing organizations? A three-country study. *Journal of International Marketing, 15*(2), 58-85.
- Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management, 33*(5), 429-438.
- Hult, G. T. M., & Ketchen Jr, D. J. (2001). Does market orientation matter? A test of the relationship between positional advantage and performance. *Strategic Management Journal, 22*(9), 899-907.
- Hult, G. T. M., Ketchen Jr, D. J., & Nichols Jr., E. L. (2002). An examination of cultural competitiveness and order fulfillment cycle time within supply chains. *Academy of Management Journal, 45*(3), 577-586.
- Hult, G. T. M., Ketchen Jr, D. J., & Slater, S. F. (2005). Market orientation and performance: An integration of disparate approaches. *Strategic Management Journal, 26*, 1173-1181.
- Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management, 29*(3), 401-426.
- Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing, 62*(3), 42-54.
- Hutchinson, K., Alexander, N., Quinn, B., & Doherty, A. M. (2007). Internationalization motives and facilitating factors: Qualitative evidence from smaller specialist retailers. *Journal of International Marketing, 15*(3), 96-122.
- Hutchinson, K., Quinn, B., & Alexander, N. (2006). SME retailer internationalisation: Case study evidence from British retailers. *International Marketing Review, 23*(1), 25-53.
- Hymer, S. H. (1960). *The international operations of national firms: A study of direct foreign investment*. Cambridge, MA: MIT Press.
- Hymer, S. H. (1976). *The International operations of national firms*. Cambridge, MA: MIT Press.

- Ibeh, K. I. N., & Young, S. (2001). Exporting as an entrepreneurial act an empirical study of Nigerian firms. *European Journal of Marketing*, 35(5/6), 566-586.
- Ireland, R. D., Hitt, M. A., Camp, S. M., & Sexton, D. L. 2001. Integrating entrepreneurship and strategic management actions to create firm wealth. *Academy of Management Executive*, 15(1), 49-63.
- Javalgi, R. G., Griffith, D. A., & White, D. S. (2003). An empirical examination of factors influencing the internationalization of service firms. *Journal of Services Marketing*, 17(2), 185-202.
- Javalgi, R. G., & Talluri, V. S. (1996). The emerging role of India in international business. *Business Horizons* 39(5), 79-87.
- Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm—A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 25-34.
- Johanson, J., & Vahlne, J. E. (1990). The mechanism of internationalism. *International Marketing Review*, 7(4), 11-25.
- Johanson, J., & Vahlne, J. E. (2003). Business relationship learning and commitment in the internationalization process. *Journal of International Entrepreneurship*, 1(1), 83-101.
- Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm—four Swedish cases. *Journal of Management Studies*, 12(3), 305-322.
- Johne, A., & Storey, C. (1998). New service development: A review of the literature and annotated bibliography. *European Journal of Marketing*, 32(3/4), 184-252.
- Joynt, P., & Welch, L. (1985). A strategy for small business internationalisation. *International Marketing Review*, 2(3), 64-74.
- Kapur, D., & Ramamurti, R. (2001). India's emerging competitive advantage in service. *Academy of Management Executive*, 15(2), 20-32.
- Karmakar, S. (2007). Disciplining domestic regulations under GATS and its implications for developing countries: An Indian case study. *Journal of World Trade*, 41(1), 127-158.
- Katsikeas, C. S., Piercy, N. F., & Ioannidis, C. (1996). Determinants of export performance in a European context. *European Journal of Marketing*, 30(6), 6-35.
- Khan, A. M., & Manopichetwattana, V. (1989). Innovative and noninnovative small firms: Types and characteristics. *Management Science*, 35(5), 597-606.

- Khandwalla, P. N. (1977). Some top management styles, their context and performance, *Organization and Administrative Sciences*, 7(4), 21-51.
- Khandwalla, P. N. (1987). Generators of pioneering-innovative management: Some Indian evidence. *Organization Studies (Walter de Gruyter GmbH & Co. KG.)*, 8(1), 39-59.
- Kim, W. C., Hwang, P., & Burgers, W. P. (1989). Global diversification strategy and corporate profit performance. *Strategic Management Journal*, 10(1), 45-57.
- Kim, W. C., Hwang, P., & Burgers, W. P. (1993). Multinationals' diversification and the risk-return trade-off. *Strategic Management Journal*, 14(4), 275-286.
- Kleinschmidt, E. J., & Cooper, R. G. (1988). The performance impact of an international orientation of product innovation. *European Journal of Marketing*, 22(10), 56-71.
- Kluyver, C., & Pearce, J. (Eds.). (2006). *Strategy: A view from the top: An executive perspective*. Pearson Prentice Hall: Upper Saddle River, N.J.
- Knight, G. (1997). Cross-cultural reliability and validity of a scale to measure firm entrepreneurial orientation. *Journal of Business Venturing*, 12(3), 213-226.
- Knight, G. (1999). International services marketing: Review of research, 1980-1998. *Journal of Services Marketing*, 13(4/5), 347-361.
- Knight, G. (2000). Entrepreneurship and marketing strategy: The SME under globalization. *Journal of International Marketing*, 8(2), 12-32.
- Knight, G. A. & Cavusgil, S. T. (1996). The born global firm: A challenge to traditional internationalization theory. In Cavusgil, S. and Madsen, T. (Eds.), *Advances in International Marketing*, 8, JAI Press, Greenwich, CT.
- Knight, G. A., & Cavusgil, S. T. (2004). Innovation organizational capabilities and the born-global firm. *Journal of International Business Studies*, 35(2), 124-141.
- Knight, G., Madsen, T. K., & Servais, P. (2004). An inquiry into born-global firms in Europe and the USA. *International Marketing Review*, 21(6), 645-665.
- Kogut, B. (1993). The nature of the firm: Origins, evolution, and development. *Administrative Science Quarterly*, 38(3), 503-507.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(3), 383-397.
- Kor, Y. Y., & Leblebici, H. (2005). How do interdependencies among human-capital deployment, development, and diversification strategies affect firms' financial performance? *Strategic Management Journal*, 26, 967-985.

- Kotabe, M., & Murray, J. Y. (1990). Linking product and process innovations and modes of international sourcing in global competition: A case of foreign multinational firms. *Journal of International Business Studies*, 21(3), 383-408.
- Kotabe, M., Murray, J. Y., & Javalgi, R. G. (1998). Global sourcing of services and market performance: An empirical investigation. *Journal of International Marketing*, 6(4), 10-31.
- Kotabe, M., Srinivasan, S. S., & Aulakh, P. S. (2002). Multinationality and firm performance: The moderating role of R&D and marketing capabilities. *Journal of International Business Studies*, 33(1), 79-97.
- Kreiser, P. M., Marino, L. D., & Weaver, K. M. (2002). Assessing the psychometric properties of the entrepreneurial orientation scale: A multi-country analysis. *Entrepreneurship: Theory & Practice*, 26(4), 71-95.
- Kuivalainen, O., Sundqvist, S., & Servais, P. (2007). Firms' degree of born-globalness, international entrepreneurial orientation and export performance. *Journal of World Business*, 42(3), 253-267.
- Kumar, V., & Singh, N. (2008). Internationalization and performance of Indian Pharmaceutical Firms. *Thunderbird International Business Review*, 40(5), 321-330.
- Kumar, V., Venkatesan, R., & Reinartz, W. (2006). Knowing what to sell. *Harvard Business Review*, 84(9), 152-152.
- Kumar, V., Shah, D. & Venkatesan, R. (2006). Managing retailer profitability—one customer at a time! *Journal of Retailing*, 82(4), 277-294.
- Kundu, S. K., & Katz, J. A. (2003). Born-international SMEs: Bi-level impacts of resources and intentions. *Small Business Economics*, 20(1), 25-48.
- Kuznik, S. M., Scherer, R., Javalgi, R., Petrick, J., & Susbauer, J. (2006). Factors affecting the entrepreneurial orientation and performance of business schools: An empirical investigation. Doctoral dissertation, Cleveland State University, Ohio.
- Langerak, F., Hultink, E. J., & Robben, H. S. J. (2004). The impact of market orientation, product advantage, and launch proficiency on new product performance and organizational performance. *Journal of Product Innovation Management*, 21(2), 79-94.
- Lawyer, K. (1945). An ounce of prevention for ex-GI entrepreneurs. *Journal of Marketing*, 10(1), 62-64.

- Leonidou, L. C., Kaminarides, J. S., & Hadjimarcou, J. (2004). An analysis of U.S. small and medium-sized manufacturers' international business relationships. *Thunderbird International Business Review*, 46(5), 545-573.
- Leonidou, L. C., & Katsikeas, C. S. (1996). The export development process: An integrative review of empirical models. *Journal of International Business Studies*, 27(3), 517-551.
- Leonidou, L. C., Katsikeas, C. S., & Piercy, N. F. (1998). Identifying managerial influences on exporting: Past research and future directions. *Journal of International Marketing*, 6(2), 74-102.
- Leonidou, L. C., Katsikeas, C. S., & Samiee, S. (2002). Marketing strategy determinants of export performance: A meta-analysis. *Journal of Business Research*, 55(1), 51-67.
- Leontiades, J. (1986). Going global—Global strategies vs national strategies. *Long Range Planning*, 19(6), 96-104.
- Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review*, 24(1), 31-48.
- Li, H., & Atuahene-Gima, K. (2001). Product innovation strategy and the performance of new technology ventures in China. *Academy of Management Journal*, 44, 1123-1134.
- Li, T., & Calantone, R. J. (1998). The impact of market knowledge competence on new product advantage: Conceptualization and empirical examination. *Journal of Marketing*, 62(4), 13-29.
- Liesch, P. W., & Knight, G. A. (1999). Information internalization and hurdle rates in small and medium enterprise internationalization. *Journal of International Business Studies*, 30(2), 383-394.
- Litz, R. A. (1997). The family firm's exclusion from business school research: Explaining the void; addressing the opportunity. *Entrepreneurship: Theory & Practice*, 21(3), 55-71.
- Lovelock, C., & Gummesson, E. (2004). Whither services marketing? In search of a new paradigm and fresh perspectives. *Journal of Service Research*, 7(1), 20-41.
- Lovelock, C. H. (1983). Classifying services to gain strategic marketing insights. *Journal of Marketing*, 47(3), 9-21.

- Lovelock, C. H., & Yip, G. S. (1996). Developing global strategies for service businesses. *California Management Review*, 38(2), 64-86.
- Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic Management Journal*, 22(6/7), 565-587.
- Lu, J. W., & Beamish, P. W. (2004). International diversification and firm performance: The s-curve hypothesis. *Academy of Management Journal*, 47(4), 598-609.
- Luk, C., Yau, O. H., Sin, L. Y., Tse, A. C. B., Chow, R. P., & Lee, J. S. (2008). The effects of social capital and organizational innovativeness in different institutional contexts. *Journal of International Business Studies*, 39(4), 589-612.
- Lukas, B. A., Tan, J. J., & Hult, T. M. (2001). Strategic fit in transitional economies: The case of China's electronics industry. *Journal of Management*, 27(4), 409-429.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135-172.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429-452.
- Lusch, R. F., & Brown, J. R. (1996). Interdependency, contracting, and relational behavior in marketing channels. *Journal of Marketing*, 60(4), 19-38.
- Lusch, R. F., & Vargo, S. L. (2006). Service-dominant logic: Reactions, reflections and refinements. *Marketing Theory*, 6(3), 281-288.
- Lusch, R. F., Vargo, S. L., & O'Brien, M. (2007). Competing through service: Insights from service-dominant logic. *Journal of Retailing*, 83(1), 5-18.
- Madhavaram, S., & Hunt, S. D. (2008). The service-dominant logic and a hierarchy of operant resources: Developing masterful operant resources and implications for marketing strategy. *Journal of the Academy of Marketing Science*, 36(1), 67-82.
- Majumdar, S. K. (2007). Private enterprise growth and human capital productivity in India. *Entrepreneurship Theory & Practice*, 31, 853-872.
- Malhotra, N. K., Ulgado, F. M., Agarwal, J., & Baalbaki, I. B. (1994). International Services Marketing. *International Marketing Review*, 11(2), 5-16.
- Malhotra, N. K., Ulgado, F. M., Agarwal, J., Shainesh, G., & Wu, L. (2005). Dimensions of service quality in developed and developing economies: Multi-country cross-cultural comparisons. *International Marketing Review*, 22(3), 256-278.

- Manolova, T., Brush, C. G., Edelman, L., & Greene, P. G. (2002). Internationalization of small firms. *International Small Business Journal*, 20(1), 9-31.
- Manolova, T. S., Eunni, R. V., & Gyoshev, B. S. (2008). Institutional environments for entrepreneurship: Evidence from emerging economies in Eastern Europe. *Entrepreneurship: Theory & Practice*, 32(1), 203-218.
- Marvel, M. R., & Lumpkin, G. T. (2007). Technology entrepreneurs' human capital and its effects on innovation radicalness. *Entrepreneurship Theory & Practice*, 31(6), 807-828.
- Matear, S., Osborne, P., Garrett, T., & Gray, B. J. (2002). How does market orientation contribute to service firm performance? An examination of alternative mechanisms. *European Journal of Marketing*, 36(9/10), 1058-1075.
- Mathews, J. A., & Zander, I. (2007). The international entrepreneurial dynamics of accelerated internationalisation. *Journal of International Business Studies*, 38(3), 387-403.
- Matsuno, K., Mentzer, J. T., & Ozsomer, A. (2002). The effects of entrepreneurial proclivity and market orientation on business performance. *Journal of Marketing*, 66(3), 18-32.
- McAuley, A. (1999). Entrepreneurial instant exporters in the Scottish arts and crafts sector. *Journal of International Marketing*, 7(4), 67-82.
- McKinsey & Co. (1993). Emerging exporters: Australia's high value-added manufacturing exporters. Australian Manufacturing Council, Melbourne.
- McDougall, P. P., Covin, J. G., Robinson Jr., R. B., & Herron, L. (1994). The effects of industry growth and strategic breadth on new venture performance and strategy content. *Strategic Management Journal*, 15(7), 537-554.
- McDougall, P. P., & Oviatt, B. M. (1996). New venture internationalization, strategic change, and performance: A follow-up study. *Journal of Business Venturing*, 11(1), 23-42.
- McDougall, P. P., & Oviatt, B. M. (2000). International entrepreneurship: The intersection of two research paths. *Academy of Management Journal*, 43(5), 902-906.
- McDougall, P. P., Oviatt, B. M., & Schrader, R. C. (2003). A comparison of international and domestic new ventures. *Journal of International Entrepreneurship*, 1(1), 59-82.

- McGuinness, N. W., & Little, B. (1981). The influence of product characteristics on the export performance of new industrial products. *Journal of Marketing*, 45(2), 110-122.
- McMullen, J. S., Bagby, D. R., & Palich, L. E. (2008). Economic freedom and the motivation to engage in entrepreneurial action. *Entrepreneurship Theory & Practice*, 32(5), 875-895.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, J. H. J. (1978). Organizational strategy, structure, and process. *Academy of Management Review*, 3(3), 546-562.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29, 770-791.
- Miller, D., & Friesen, P. H. (1978). Archetypes of strategy formulation. *Management Science*, 24(9), 921-933.
- Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. *Strategic Management Journal*, 3(1), 1-25.
- Miller, D., & Friesen, P. H. (1983). Strategy-making and environment: The third link. *Strategic Management Journal*, 4(3), 221-235.
- Mintzberg, H. (1973). Strategy-making in three modes. *California Management Review*, 16(2), 44-53.
- Moen, O. (1999). The relationship between firm size, competitive advantages and export performance revisited. *International Small Business Journal*, 18(1), 53-73.
- Moreno, A. M., & Casillas, J. C. (2008). Entrepreneurial orientation and growth of SMEs: A causal model. *Entrepreneurship Theory & Practice*, 32 (3), 507-528.
- Morgan, R. E., & Katsikeas, C. S. (1997a). Export stimuli: Export intention compared with export activity. *International Business Review*, 6(5), 477-500.
- Morgan, R. E., & Katsikeas, C. S. (1997b). Obstacles to export initiation and expansion. *Omega*, 25(6), 677-691.
- Morris, M. H., & Gordon, P. W. (1987). The relationship between entrepreneurship and marketing in established firms. *Journal of Business Venturing*, 2(3), 247-260.
- Mavondo, F. T., Chimhanzi, J., & Stewart, J. (2005). Learning orientation and market orientation: Relationship with innovation, human resource practices and performance. *European Journal of Marketing*, 39(11/12), 1235-1263.

- Naman, J. L., & Slevin, D. P. (1993). Entrepreneurship and the concept of fit: A model and empirical tests. *Strategic Management Journal*, 14(2), 137-153.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20-35.
- Neill, S., & Rose, G. M. (2006). The effect of strategic complexity on marketing strategy and organizational performance. *Journal of Business Research*, 59(1), 1-10.
- Nielsen, R. P., Peters, M. P., & Hisrich, R. D. (1985). Intrapreneurship strategy for internal markets—corporate, non-profit and government institution cases. *Strategic Management Journal*, 6(2), 181-189.
- Nijssen, E. J., Hillebrand, B., Vermeulen, P. A. M., & Kemp, R. G. M. (2006). Exploring product and service innovation similarities and differences. *International Journal of Research in Marketing*, 23(3), 241-251.
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, 69(6), 96-104.
- Nonaka, I. (2007). The knowledge-creating company. *Harvard Business Review*, 85(7/8), 162-171.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press: New York, NY, 284.
- Nonaka, I., von Krogh, G., & Voelpel, S. (2006). Organizational knowledge creation theory: Evolutionary paths and future advances. *Organization Studies*, 27, 1179-1208.
- Nordenflycht, A. (2007). Is public ownership bad for professional service firms? Ad agency ownership, performance, and creativity. *The Academy of Management Journal*, 40(2), 429-445.
- North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge, MA: Harvard University Press.
- Nunnally, J. C. (1967) *Psychometric theory*. New York, NY: McGraw-Hill.
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25(1), 45-64.
- Oviatt, B. M., & McDougall, P. P. (1995). Global start-ups: Entrepreneurs on a worldwide stage. *Academy of Management Executive*, 9(2), 30-43.

- Oviatt, B. M., & McDougall, P. P. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship: Theory & Practice*, 29(5), 537-553.
- Pan, Y., Li, S., & Tse, D. K. (1999). The impact of order and mode of market entry on profitability and market share. *Journal of International Business Studies*, 30(1), 81-103.
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213-233.
- Parry, M. E., & Song, X. M. (1994). Identifying new product successes in China. *Journal of Product Innovation Management*, 11(1), 15-30.
- Patterson, P. G., & Cicic, M. (1995). A typology of service firms in international markets: An empirical investigation. *Journal of International Marketing*, 3(4), 57-83.
- Pearce II, J. A., Robbins, D. K., & Robinson, J. R. B. (1987). The impact of grand strategy and planning formality on financial performance. *Strategic Management Journal*, 8(2), 125-134.
- Peng, M. W., Wang, D. Y. L., & Yi, J. (2008). An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, 39(5), 920-936.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. New York: John Wiley.
- Pla-Barber, J., & Escriba-Esteve, A. (2006). Accelerated internationalisation: Evidence from a late investor country. *International Marketing Review*, 23(3), 255-278.
- Porter, M. E. (1990). The competitive advantage of nations [Cover story]. *Harvard Business Review*, 68(2), 73-93.
- Prahalad, C. K., & Doz, Y. L. (1989). The multinational mission: Balancing local demand and global vision. *International Trade Journal*, 4(1), 115-118.
- Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79-91.
- Preece, S. B., Miles, G., & Baetz, M. C. (1999). Explaining the international intensity and global diversity of early-stage technology-based firms. *Journal of Business Venturing*, 14(3), 259-282.
- Qian, G., & Li, L. (2002). Multinationality, global market diversification and profitability among the largest U.S. firms. *Journal of Business Research*, 55(4), 325-335.

- Qian, G., & Li, L. (2003). Profitability of small-and medium-sized enterprises in high-tech industries: The case of the biotechnology industry. *Strategic Management Journal*, 24(9), 881-887.
- Qian, G., Yang, L., & Wang, D. (2003). Does multinationality affect profit performance? An empirical study of U.S. SMEs. *Journal of General Management*, 28(4), 37-46.
- Ramírez-Alesón, M., & Espitia-Escuer, M. A. (2001). The effect of international diversification strategy on the performance of Spanish-based firms during the period 1991-1995. *Management International Review (MIR)*, 41(3), 291-315.
- Reinartz, W. J., & Kumar, V. (2003). The impact of customer relationship characteristics on profitable lifetime duration. *Journal of Marketing*, 67(1), 77-99.
- Reuber, A. R., & Fischer, E. (1997). The influence of the management team's international experience on the internationalization of SMEs. *Journal of International Business Studies*, 28(4), 807-825.
- Riahi-Belkaoui, A. (1998). The effects of the degree of internationalization on firm performance. *International Business Review*, 7(3), 315-322.
- Riahi-Belkaoui, A. (2001). Level of multinationality, growth opportunities, and size as determinants of analyst ratings of corporate disclosures. *American Business Review*, 19(2), 115-121.
- Riahi-Belkaoui, A. (2002a). Level of multinationality as an explanation for post-announcement drift. *International Journal of Accounting*, 37(4), 413-420.
- Riahi-Belkaoui, A. (2002b). Discussion of "The changing nature of financial disclosure in Japan." *International Journal of Accounting*, 37(1), 117-120.
- Rialp, A., Rialp, J., & Knight, G. A. (2005). The phenomenon of early internationalizing firms: What do we know after a decade (1993-2003) of scientific inquiry? *International Business Review*, 14(2), 147-166.
- Ruigrok, W., & Wagner, H. (2003). Internationalization and Performance: An organizational learning perspective. *Management International Review*, 43(1), 63-83.
- Ruzzier, M., Antoncic, B., Hisrich, R. D., & Konecnik, M. (2007). Human capital and SME internationalization: A structural equation modeling study. *Canadian Journal of Administrative Sciences*, 24(1), 15-29.

- Saarenketo, S., Puumalainen, K., Kuivalainen, O., & Kylaheiko, K. (2004). Dynamic knowledge-related learning processes in internationalizing high-tech SMEs. *International Journal of Production Economics*, 89(3), 363-378.
- Sakai, K. (2002). *Global industrial restructuring: Implications for smaller firms*. STI Working Paper 2002(4) OECD, Paris.
- Salgado, R. (2003). India's global integration and the role of the IT sector. *India: Selected Issues*, IMF.
- Samiee, S., Walter, P. G. P., & DuBois, F. L. (1993). Exporting as an innovative behaviour: An empirical investigation. *International Marketing Review*, 10(3), 5-26.
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capabilities perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31(4), 914-933.
- Sapienza, H. J., Smith, K. G., & Gannon, M. J. (1988). Using subjective evaluations of organizational performance in small business research. *American Journal of Small Business*, 12(3), 45-53.
- Schreyer, P. (1996). *SMEs and employment creation: Overview of selective qualitative studies in OECD member countries*. STI working paper 1996(4).
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: University Harvard University Press.
- Schumpeter, J. A. (1942). *Capitalism, socialism, and democracy*. New York: Harper.
- Schumpeter, J. A. (1961). *Theory of economic development*. New York: Oxford University Press.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448-469.
- Shook, C. L., Ketchen Jr, D. J., Hult, G. T. M., & Kacmar, K. M. (2004). An assessment of the use of structural equation modeling in strategic management research. *Strategic Management Journal*, 25(4), 397-404.
- Shuman, J. C., & Seeger, J. A. (1986). The theory and practice of strategic management in smaller rapid growth firms. *American Journal of Small Business*, 11(1), 7-18.
- Skaggs, B. C., & Youndt, M. (2003). *Strategic positioning, human capital, and performance in service organizations: A customer interaction approach*. Academy of Management Proceedings, FF1-FF6.

- Skaggs, B. C., & Youndt, M. (2004). Strategic positioning, human capital and performance in service organizations: A customer interaction approach. *Strategic Management Journal*, 25(1), 85-99.
- Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, 59(3), 63-75.
- Snell, S. A., & Dean Jr., J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, 35(3), 467-504.
- Song, X. M., & Parry, M. E. (1994). The dimensions of industrial new product success and failure in state enterprises in the people's republic of China. *Journal of Product Innovation Management*, 11(2), 105-118.
- Song, X. M., & Parry, M. E. (1996). What separates Japanese new product winners from losers. *Journal of Product Innovation Management*, 13(5), 422-439.
- Song, X. M., & Parry, M. E. (1997). The determinants of Japanese new product successes. *Journal of Marketing Research (JMR)*, 34(1), 64-76.
- Song, X. M., & Parry, M. E. (1999). Challenges of managing the development of breakthrough products in Japan. *Journal of Operations Management*, 17(6), 665-688.
- Spence, M., & Crick, D. (2006). A comparative investigation into the internationalisation of Canadian and UK high-tech SMEs. *International Marketing Review*, 23(5), 524-548.
- Sridharan, R. (2006). Small ain't beautiful: A survey of India's SMEs. *Business Today* 15(18), September 10, 99-110.
- Srivastava, R. K., Fahey, L., & Christensen, H. K. (2001). The resource-based view and marketing: The role of market-based assets in gaining competitive advantage. *Journal of Management*, 27(6), 777-803.
- Styles, C., Patterson, P. G., & La, V. Q. (2005). Executive insights: Exporting services to southeast Asia: Lessons from Australian knowledge-based service exporters. *Journal of International Marketing*, 13(4), 104-128.
- Styles, C., & Seymour, R. G. (2006). Opportunities for marketing researchers in international entrepreneurship. *International Marketing Review*, 23(2), 126-145.
- Subramaniam, M., & Venkatraman, N. (2001). Determinants of transnational new product development capability: Testing the influence of transferring and

- deploying tacit overseas knowledge. *Strategic Management Journal*, 22(4), 359-378.
- Subramaniam, M., & Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal*, 48(3), 450-463.
- Sullivan, D. (1994). Measuring the degree of internationalization of a firm. *Journal of International Business Studies*, 25(2), 325-342.
- Szymanski, D. M., Kroff, M. W., & Troy, L. C. (2007). Innovativeness and new product success: Insights from the cumulative evidence. *Journal of the Academy of Marketing Science*, 35(1), 35-52.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Allyn & Bacon.
- Tallman, S., & Li, J. (1996). Effects of international diversity and product diversity on the performance of multinational firms. *Academy of Management Journal*, 39(1), 179-196.
- Teece, D., & Pisano, G. (1994). The dynamic capabilities of firms: An introduction. *Industrial & Corporate Change*, 3(3), 537-556.
- Teece, D. J. (1998). Capturing value from knowledge assets: The new economy, markets for know-how, and intangible assets. *California Management Review*, 40(3), 55-79.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Terpstra, V., & Chwo-Ming, Y. (1988). Determinants of foreign investment of U.S. advertising agencies. *Journal of International Business Studies*, 19(1), 33-46.
- Thomas, D. E. (2006). International diversification and firm performance in Mexican firms: A curvilinear relationship? *Journal of Business Research*, 59(4), 501-507.
- Thomas, D. E., & Eden, L. (2004). What is the shape of the multinationality-performance relationship? *Multinational Business Review*, 12(1), 89-110.
- Thomas, J. S., Reinartz, W., & Kumar, V. (2004). Getting the most out of all your customers. *Harvard Business Review*, 82(7/8), 116-123.
- Thornhill, S. (2006). Knowledge, innovation and firm performance in high- and low-technology regimes. *Journal of Business Venturing*, 21(5), 687-703.

- Tihanyi, L., Ellstrand, A. E., Daily, C. M., & Dalton, D. R. (2000). Composition of the top management team and firm international diversification. *Journal of Management*, 26, 1157-1177.
- Tseng, C., Tansuhaj, P., Hallagan, W., & McCullough, J. (2007). Effects of firm resources on growth in multinationality. *Journal of International Business Studies*, 38(6), 961-974.
- UNCTAD. (2000). *United Nations conference on trade and development. Global economic growth and imbalances*. Retrieved March 26, 2008, from http://www.unctad.org/en/docs/tdr2000_en.pdf
- UNCTAD. (2004). *Secretariat report. Improving the competitiveness of SMEs through enhancing productive capacity*. Retrieved March 26, 2008, from <http://www.oecd.org/dataoecd/6/12/31919223.pdf>
- UNCTAD. (2005). *Trade and development aspects of professional services and regulatory frameworks*. Note by the UNCTAD Secretariat. Retrieved March 26, 2008, from http://www.unctad.org/en/docs/c1em25d2_en.pdf
- UNCTAD. (2007a). *Development and globalization: Facts and figures*. Retrieved March 26, 2008, from <http://globstat.unctad.org/html/index.html>
- UNCTAD. (2007b). United Nations Conference on Trade and Development. *Trade and development report, 2007: Regional cooperation for Development*. Retrieved March 26, 2008, from <http://www.unctad.org/Templates/webflyer.asp?docid=8951&intItemID=4330&lang=1&mode=downloads>
- UNCTAD. (2008). United Nations Conference on Trade and Development. *Trade and Development Report, 2008: Transnational Corporations and the Infrastructure Challenge*. Retrieved August 29, 2008, from <http://www.unctad.org/Templates/Webflyer.sp?docid=10502&intItemID=2068&lang=1&mode=downloads>
- Vargo, S. L., & Lusch, R. F. (2004a). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1-17.
- Vargo, S. L., & Lusch, R. F. (2004b). The four service marketing myths: Remnants of a goods-based, manufacturing model. *Journal of Service Research*, 6(4), 324-335.
- Vargo, S. L., & Lusch, R. F. (2008). Why "service"? *Journal of the Academy of Marketing Science*, 36(1), 25-38.
- Venkatraman, N. (1989). Strategic orientation of business enterprises: The construct, dimensionality, and measurement. *Management Science*, 35(8), 942-962.

- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801-814.
- Venkatraman, N., & Ramanujam, V. (1987). Measurement of business economic performance: An examination of method convergence. *Journal of Management*, 13(1), 109-123.
- Venkataramanaiah, S., & Parashar, S. P. (2007). Enhancing the competitiveness of SMEs through industrial clusters: The Indian experience. *International Journal of Technology Management & Sustainable Development*, 6(3), 227-243.
- Venkatesan, R., Kumar, V., & Bohling, T. (2007). Optimal Customer Relationship Management Using Bayesian Decision Theory: An Application for Customer Selection. *Journal of Marketing Research*, 44(4), 579-594.
- Vernon, R. (1966). International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 80(2), 190-207.
- Vernon, R. (1979). The product cycle hypothesis in a new international environment. *Oxford Bulletin of Economics & Statistics*, 41(4), 255-267.
- Wagner, H. 2004. Internationalization speed and cost efficiency: Evidence from Germany. *International Business Review*, 13(4), 447-463.
- Walker, R. M., Damanpour, F., & Avellaneda, C. N. (2007). Combinative effects of innovation types on performance: A longitudinal study of public services. *Academy of Management Proceedings*, 1-6.
- Wally, S., & Becerra, M. (2001). Top management team characteristics and strategic changes in international diversification: The case of U.S. multinationals in the European community. *Group & Organization Management*, 26(2), 165-189.
- Walters, P. G. P., & Samiee, S. (1990). A model for assessing performance in small U.S. exporting firms. *Entrepreneurship: Theory & Practice*, 15(2), 33-50.
- Weerawardena, J. (2003). The role of marketing capability in innovation-based competitive strategy. *Journal of Strategic Marketing*, 11(1) 15-36.
- Weerawardena, J., O'Cass, A. (2004). Exploring the characteristics of the market-driven firms and antecedents to sustained competitive advantage. *Industrial Marketing Management*, 33(5), 419-428.
- Wei, L., & Lau, C. (2008). The impact of market orientation and strategic HRM on firm performance: The case of Chinese enterprises. *Journal of International Business Studies*, 39(6), 980-995.

- Weinstein, A. K. (1977). Foreign investments by service firms: The case of multinational advertising agencies. *Journal of International Business Studies*, 8(1), 83-91.
- Wernerfelt, B. (1995). The resource-based view of the firm: Ten years after. *Strategic Management Journal*, 16(3), 171-174.
- West, G. P., Bamford, C. E., & Marsden, J. W. (2008). Contrasting entrepreneurial economic development in emerging Latin American economies: Applications and extensions of resource-based theory. *Entrepreneurship Theory and Practice*, 32(1), 15-36.
- Westhead, P., & Wright, M. (2001). The internationalization of new and small firms: A resource-based view. *Journal of Business Venturing*, 16(4), 333-359.
- Westhead, P., Wright, M., & Ucbasaran, D. (2004). Internationalization of private firms: Environmental turbulence and organizational strategies and resources. *Entrepreneurship & Regional Development*, 16(6), 501-522.
- Westhead, P., Wright, M., Ucbasaran, D., & Martin, F. (2001). International market selection strategies of manufacturing and services firms. *Entrepreneurship & Regional Development*, 13(1), 17-46.
- Wiersema, M. F., & Bowen, H. P. (2008). Corporate diversification: The impact of foreign competition, industry globalization, and product diversification. *Strategic Management Journal*, 29(2), 115-132.
- Wiklund, J. (1999). The sustainability of the entrepreneurial orientation--performance relationship. *Entrepreneurship: Theory & Practice*, 24(1), 39-50.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307-1311.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing*, 20(1), 71-91.
- Williamson, O. E. (1985). Assessing Contract. *Journal of Law, Economics & Organization*, 1(1), 177-208.
- Wolff, J. A., & Pett, T. L. (2000). Internationalization of small firms: An examination of export competitive patterns, firm size, and export performance. *Journal of Small Business Management*, 38(2), 34-47.
- Wolff, J. A., & Pett, T. L. (2007). Learning and small firm growth: The role of entrepreneurial orientation. *Academy of Management Proceedings*, 1-6.

- World Trade Organization Handbook of Statistics (2006-07), Interactive. Retrieved March 17, 2008, from <http://stats.unctad.org/Handbook/ReportFolders/reportFolders.aspx>
- World Trade Organization (2007a). World Trade Report 2007: Six Decades of Multilateral Trade Cooperation: What Have We Learnt? Retrieved March 1, 2008, from: http://www.wto.org/english/res_e/reser_e/wtr_arc_e.htm
- World Trade Organization. (2007b). Trade Profiles Retrieved March 1, 2008, from <http://stat.wto.org/CountryProfile/WSDBCcountryPFHome.aspx?Language=E>.
- Wright, M., Westhead, P., & Ucbasaran, D. (2007). Internationalization of small and medium-sized enterprises (SMEs) and international entrepreneurship: A critique and policy implications. *Regional Studies*, 41(7), 1013-1030.
- Wu, L., Wang, C., Chen, C., & Pan, L. (2008). Internal resources, external network, and competitiveness during the growth stage: A study of Taiwanese high-tech ventures. *Entrepreneurship Theory & Practice*, 32(3), 529-549.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. (2008). What drives new ventures to internationalize from emerging to developed economies? *Entrepreneurship Theory and Practice*, 32(1), 59-82.
- Yiu, D. W., Chung Ming, L., & Bruton, G. D. (2007). International venturing by emerging economy firms: The effects of firm capabilities, home country networks, and corporate entrepreneurship. *Journal of International Business Studies*, 38(4), 519-540.
- Yli-Renko, H., Autio, E., & Sapienza, H. J. (2001). Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. *Strategic Management Journal*, 22(6/7), 587-614.
- Youndt, M. A., Subramaniam, M., & Snell, S. A. (2004). Intellectual capital profiles: An examination of investments and returns. *Journal of Management Studies*, 41(2), 335-361.
- Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of Business Venturing*, 6(4), 259-286.
- Zahra, S. A. (1993a). A conceptual model of entrepreneurship as firm behavior: A critique and extension. *Entrepreneurship: Theory & Practice*, 17(4), 5-21.
- Zahra, S. A. (1993b). Environment, corporate entrepreneurship, and financial performance: A taxonomic approach. *Journal of Business Venturing*, 8(4), 319-341.

- Zahra, S. A. (1993c). New product innovation in established companies: Associations with industry and strategy variables. *Entrepreneurship: Theory & Practice*, 18(2), 47-69.
- Zahra, S. A. (2003). International expansion of U.S. manufacturing family businesses: The effect of ownership and involvement. *Journal of Business Venturing*, 18(4), 495-513.
- Zahra, S. A., & Covin, J. G. (1995). Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*, 10(1), 43-59.
- Zahra, S. A., & Garvis, D. M. (2000). International corporate entrepreneurship and firm performance: The moderating effect of international environmental hostility. *Journal of Business Venturing*, 15(5/6), 469-493.
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185-203.
- Zahra, S. A., de Belardino, S., & Boxx, W. R. (1988). Organizational innovation: Its correlates and its implications for financial performance. *International Journal of Management*, 5(June), 133-42.
- Zahra, S. A., George, G., & Dharwadkar, R. (2001). Entrepreneurship in the multinational corporation: The effects of corporate and local contexts. *Academy of Management Proceedings*, G1-G6.
- Zahra, S. A., Ireland, R. D., & Hitt, M. A. (2000). International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43(5), 925-950.
- Zahra, S. A., Jennings, D. F., & Kuratko, D. F. (1999). The antecedents and consequences of firm-level entrepreneurship: The state of the field. *Entrepreneurship: Theory & Practice*, 24(2), 47-67.
- Zahra, S. A., Korri, J. S., & JiFeng, Y. (2005). Cognition and international entrepreneurship: Implications for research on international opportunity recognition and exploitation. *International Business Review*, 14(2), 129-146.
- Zahra, S. A., Neubaum, D. O., & El-Hagrassey, G. M. (2002). Competitive analysis and new venture performance: Understanding the impact of strategic uncertainty and venture origin. *Entrepreneurship: Theory & Practice*, 27(1), 1-28.
- Zahra, S. A., Neubaum, D. O., & Huse, M. (1997). The effect of the environment on export performance among telecommunications new ventures. *Entrepreneurship: Theory & Practice*, 22(1), 25-47.

- Zaltman, G., Duncan, R., & Holbeck, J. (1973). *Innovations and organizations*. New York: Wiley & Sons.
- Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and strategies in services marketing. *Journal of Marketing*, 49(2), 33-46.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. 2002. Service quality delivery through Web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362-375.
- Zhou, K. Z., Yim, C. K., & Tse, D. K. (2005). The effects of strategic orientations on technology- and market-based breakthrough innovations. *Journal of Marketing*, 69(2), 42-60.
- Zhou, L. (2007). The effects of entrepreneurial proclivity and foreign market knowledge on early internationalization. *Journal of World Business*, 42(3), 281-293.
- Zhou, L., Wu, W., & Luo, X. (2007). Internationalization and the performance of born-global SMEs: The mediating role of social networks. *Journal of International Business Studies*, 38(4), 673-690.
- Zimmerman, A. (1999). Impacts of services trade barriers: A study of the insurance industry. *Journal of Business & Industrial Marketing*, 14(3), 211-229.
- Zou, S., & Stan, S. (1998). The determinants of export performance: A review of the empirical literature between 1987 and 1997. *International Marketing Review*, 15(5), 333-357.
- Zou, S., Taylor, C. R., & Osland, G. E. (1998). The EXPERF scale: A cross-national generalized export performance measure. *Journal of International Marketing*, 6(3), 37-58.
- Zucchella, A., Palamara, G., & Denicolai, S. (2007). The drivers of the early internationalization of the firm. *Journal of World Business*, 42(3), 268-280.

APPENDIX

APPENDIX A

Professional Services Survey

Part I.

The following statements pertain to the entrepreneurial strategic orientation of your firm. Review each of the following statements and circle the number that approximates your response. Selecting 1 means you strongly disagree with the statement. Selecting 7 indicates strong agreement with the statement. A response of 4 indicates neutrality.

		Strongly Disagree						Strongly Agree
We believe that wide-ranging acts are necessary to achieve our objectives.	1	2	3	4	5	6	7	
We initiate actions to which other organizations respond.	1	2	3	4	5	6	7	
We are fast to introduce new products and services to the marketplace.	1	2	3	4	5	6	7	
We have a strong proclivity or tendency for high-risk projects.	1	2	3	4	5	6	7	
We are bold in our efforts to maximize the probability of exploiting opportunities.	1	2	3	4	5	6	7	

Part II.

The following statements pertain to the intellectual capital of your firm. To what extent do you agree with the following items describing your organization's intellectual capital? Selecting a 1 means you strongly disagree with the statement. Selecting a 7 indicates strong agreement with the statement. A response of 4 indicates neutrality.

		Strongly Disagree						Strongly Agree
Our employees are highly skilled.	1	2	3	4	5	6	7	
Our employees are widely considered the best in our industry.	1	2	3	4	5	6	7	
Our employees are creative and bright.	1	2	3	4	5	6	7	
Our employees are experts in their particular jobs and functions.	1	2	3	4	5	6	7	
Our employees develop new ideas and knowledge.	1	2	3	4	5	6	7	

Part III.

The following statements pertain to the extent that your firm is involved in international markets or international operations.

Please estimate the percentage of your company's total sales which are attributable to **foreign sales**.

_____ less than 5% _____ 6-10% _____ 11-24% _____ 25-49% _____ 50-74% _____ over 75%

Please estimate the percentage of your company's profits which are attributable to **foreign profits**.

_____ less than 5% _____ 6-10% _____ 11-24% _____ 25-49% _____ 50-74% _____ over 75%

Please estimate the percentage of your company's customers who are considered **foreign customers**.

_____ less than 5% _____ 6-10% _____ 11-24% _____ 25-49% _____ 50-74% _____ over 75%

Part IV.

The following statements pertain to the advantages of your firm's service innovativeness. To what extent do the following statements describe the service(s) offered by your firm? Selecting a 1 means you strongly disagree with the statement. Selecting a 7 indicates strong agreement with the statement. A response of 4 indicates neutrality.

	Strongly Disagree						Strongly Agree
Service(s) offer unique benefits to the customer, not offered by competitors.	1	2	3	4	5	6	7
Service(s) are radically different from competitor services.	1	2	3	4	5	6	7
Service(s) provide higher quality than the competitors.	1	2	3	4	5	6	7
Service(s) are highly innovative, replacing a vastly inferior alternative.	1	2	3	4	5	6	7

Part V.

The following statements pertain to the performance of your firm relative to competitors. Please rate your firm on the following items. Selecting a 1 means your firm's performance is much worse than competitors' performance. Selecting a 7 indicates your firm's performance is much better than competitors' performance. A response of 4 indicates your firm's performance is equal to your competitors' performance.

Please compare your firm over the past 3 years relative to your two most important competitors on the following criteria:

	Much Worse						Much Better
Return on Investment (ROI)	1	2	3	4	5	6	7
Return on assets (ROA)	1	2	3	4	5	6	7

Part VI. Industry

1. Please check the category that best describes your company's primary area of business:

- | | | |
|---|---|---|
| <input type="checkbox"/> Advertising | <input type="checkbox"/> Accounting/Payroll | <input type="checkbox"/> Architects/Engineering |
| <input type="checkbox"/> Computer/Information | <input type="checkbox"/> Contractors/Engineers | <input type="checkbox"/> Financial Services/Banking |
| <input type="checkbox"/> Health Services | <input type="checkbox"/> Insurance | <input type="checkbox"/> Legal |
| <input type="checkbox"/> Management/Consulting | <input type="checkbox"/> Maintenance | <input type="checkbox"/> Research & Development |
| <input type="checkbox"/> Restaurants & Hotels | <input type="checkbox"/> Real Estate/Rental/Leasing | |
| <input type="checkbox"/> Other (Please Specify) _____ | | |

Part VII.

Variables Related to the Firm:

1. Approximately what are the annual total sales of your organization?

- | | |
|--|--|
| <input type="checkbox"/> under \$50,000 | <input type="checkbox"/> \$50,000-\$99,999 |
| <input type="checkbox"/> \$100,000-\$249,999 | <input type="checkbox"/> \$250,000-\$499,999 |
| <input type="checkbox"/> \$500,000-\$999,999 | <input type="checkbox"/> \$1 million - \$4.9 million |
| <input type="checkbox"/> \$5 million - \$9.9 million | <input type="checkbox"/> \$10 million - \$49.9 million |
| <input type="checkbox"/> \$50 million - \$99.9 million | <input type="checkbox"/> \$100 million - \$499.9 million |
| <input type="checkbox"/> \$500 million - \$999.9 million | <input type="checkbox"/> over \$1 billion |

2. Approximately how many full-time employees does your company have?

- 1-10 11-24 25-49 50-74 75-99 100-249 250-499

3. Please indicate what international market entry strategies your company has used or is currently using?

(Please check all that apply.)

- Exporting Licensing Franchising Joint Venture Wholly Owned Subsidiary

Part VIII.

Company Information. Please complete each line by selecting no more than one item.

Business Status Public Private

Part IX: For Respondent Only

1. *Gender?* Male Female

2. *Years of experience in current industry?*

- Up to 1 year 2-4 years 5-7 years 8-10 years 11-15 years >15 years

3. *Years of international business experience?*

- Up to 1 year 2-4 years 5-7 years 8-10 years 11-15 years >15 years

4. *How many languages do you speak?*

- 1 2 3 4 5 6 7 8 9 10 >10

5. *Number of years with your firm?*

- Up to 1 year 2-4 years 5-7 years 8-10 years >10 years

Thank you for your time in completing this survey.

APPENDIX B



Cleveland State University

Institutional Review Board for Human Subjects in Research Application for Project Review

I. Title Page

Date (mm/dd/yyyy): 12/06/2007

Transaction Number (office use only): _____

Project Title: Factors Affecting the Internationalization of Professional Services: An Empirical Investigation

PRINCIPAL INVESTIGATOR OR ADVISOR

Name: (Last, First): Javalgi, Raishekhar

Degree Attained:

PhD, ThD, PhL, PhB

Department: BUSINESS ADMINISTRATION Title: Dean/Assoc. Dean

Electronic Mail Address: r.javalgi@csuohio.edu

Campus Address: Monte Ahuja Hall, Room 415, 2121 Euclid Avenue, Cleveland, Ohio 44115-2214

Office Phone: (216) 687-4757 Home Phone: (216) 687-4789

Has the investigator completed the CITI course in the protection of human subjects? Yes No

CO-PRINCIPAL OR STUDENT INVESTIGATOR

Name: (Last, First): Radulovich, Lori

Degree Attained: MA, MS, MBA, MSW

Department: Business Administration

Title: Assoc./Assist. Professor

Electronic Mail Address: lradulov@bw.edu

Office Phone: (440) 826-5916

Has the investigator completed the CITI course in the protection of human subjects? Yes No

If this is a student investigator, please indicate status:

Undergraduate

Master level student

Doctoral level student

and level of involvement in the research:

Assisting Faculty Research Thesis Dissertation Classroom project: Class name/number _____

If there are more CSU investigators, please complete the "Additional CSU Investigators" form

PROPOSED PROJECT DURATION (research may not begin prior to IRB approval):

From (mm/dd/yyyy): 01/01/2008

To (mm/dd/yyyy): 08/31/2008 (date following anticipated approval; maximum one year later)

If expected duration of project exceeds 12 months, continuation of IRB approval will require additional action by the IRB. Renewal requests will be sent to you prior to the expiration date.

***Type of funding or support: None

<u>Initial Evaluation</u>	FOR IRB USE ONLY	<u>Final IRB Action</u>
<input type="checkbox"/> Approve as is	<input type="checkbox"/> Exempt Status: Project is exempt under 45 CFR 46.101	
<input type="checkbox"/> Requires Revision before evaluation or final action	<input type="checkbox"/> Expedited Review: Approval Category _____	
<input type="checkbox"/> Full IRB review required	<input type="checkbox"/> Regular IRB approval	
	<input type="checkbox"/> Other: _____	

Institutional Review Board
Human Subjects in Research
Instructions and Checklist for Applicants

The Institutional Review Board (IRB) of Cleveland State University (CSU) is responsible for ensuring the protection and ethical treatment of human participants in research conducted under the auspices of the University. Accordingly, the IRB must evaluate all such research projects, in compliance with Federal Regulations. Your application to the IRB for permission to test human subjects should follow the guidelines provided below. *Proposed Departures from the guidelines should be justified thoroughly.*

Some protocols may be approved through one of the expedited or exempt categories in the Federal Regulations, and some require full Committee consideration. These determinations are made by the IRB, **not** by the researcher. If your protocol requires full Committee consideration, the University Office of Sponsored Programs and Research must receive it no later than two (2) full weeks prior to the IRB meeting; this meeting normally occurs during the first week of the month. Protocols should be submitted to the IRB, Office of Sponsored Programs and Research, 2258 Euclid Avenue, Hannafin Hall, Cleveland, OH 44115-2440 ATTN: IRB Coordinator.

Issues of Particular Concern to the IRB

- **Privacy:** In most research, subjects' willingness to participate will depend on the researcher's explanation of the project and its purpose, the subject's understanding of risks and benefits, and the assurance that the specifics of their participation will not become known to other individuals. A mismatch between your assurance to the subjects and the procedures you explain in your Project Description will lead the IRB to request revisions before approval can be granted. Issues of anonymity and confidentiality are of special concern when subjects might divulge sensitive information, including situations in which their responses might place them in jeopardy (e.g., public embarrassment, threats to job security, self-incrimination). The care with which you address these issues in your procedures is very important to the IRB approval process.
- **Risk:** In much research, subjects' participation involves little or no risk. If this is genuinely the case, say so; e.g., "minimal risk," "no foreseeable risk," "no risks beyond those of daily living." If there is some risk, where physical, psychological, social, legal, or otherwise, the IRB will be particularly interested in the safeguards you implement to deal with these risks. The overall importance and soundness of the research project will be especially important if subjects are placed at some degree of risk by participating.
- **Special Populations:** Testing minors, pregnant women, prisoners, mentally retarded or disabled persons, or other special populations raises serious issues regarding risk and informed consent, which your protocol must address. On the other hand, recent federal guidelines mandate the inclusion of women and minorities in research. The nature of your subject population must be clear in your proposal, and you must provide your rationale for including/excluding identifiable subgroups based on gender and minority status.
- **IRB Procedures:** CSU's IRB receives approximately 300 applications a year, each of which must be evaluated for adequate protection of the subjects against research risks. You will enhance the acceptability of your proposal, and the speed with which the IRB can evaluate it, if your protocol is concise, deals specifically with the issues discussed in these instructions, and shows your sensitivity to the overriding concerns of ethical treatment of human subjects. Please feel free to suggest any modifications or elaboration to these instructions that would be helpful to you as you write or revise your applications.

II. Participant Information

Total number of subjects: Up to 2000

Age range (lower limit – upper limit): 25-65 Gender: Both Ethnic Minority:
International/Non-US Resident

Inclusionary criteria: Small business owner in India

Exclusionary criteria: Number of employees in excess of 500

Source of participants: Business Owners Residing in India

Is the data archival? Yes No

If yes, will the data be recorded in a way that prevents subjects from being identified?

Yes No

Length of participation (x min/session, y sessions, over z months): 30 minutes

Participants in Special Consideration Categories: (Check all that apply.)

- | | |
|--|---|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Military personnel |
| <input type="checkbox"/> Children (age range: _____) | <input type="checkbox"/> Wards of the State |
| <input type="checkbox"/> Cognitively impaired persons | <input type="checkbox"/> Institutionalized individuals |
| <input type="checkbox"/> Prisoners | <input type="checkbox"/> Non-English speaking individuals |
| <input type="checkbox"/> Pregnant or lactating women | <input type="checkbox"/> Students |
| <input type="checkbox"/> Blind individuals | |
| <input type="checkbox"/> Other subjects whose life circumstances may interfere with their ability to make free choice in consenting to take part in research (please specify): _____ | |

Site(s) of data collection: India

Letters of approval from project site officials: are not needed (research on-campus).

*You **MUST** include letters of approval from appropriate administrative officials at the facility where you will be collecting data.

III. Project Description

a. Give a concise statement of the area of research and briefly describe the purpose and objectives of your proposed research:

The purpose of this research is to extend entrepreneur orientation literature into the international setting by empirically testing an international service performance framework. This research will empirically examine the relationships among an entrepreneur orientation, human capital, foreign market knowledge, and their relationship with the performance. This research will provide several contributions to research by empirically testing cross-disciplinary, hypothesized relationships in an integrative service performance framework.

b. Provide a detailed description of how participants will be recruited and used in the project. Please include a description of the tasks subjects will be performing, the circumstances of testing, and/or the nature of the subjects' involvement.

The sample will be collected via a survey of service firms located in India within the industries of banking, consulting, accounting, computer services, etc. Subjects will be owners of small business service firms identified as doing business internationally and employing less than 500 persons. A list of international service firms located in India will be acquired and reviewed by the dissertation research Principal Investigator. A marketing research firm in India will contact the firms listed on the database by telephone to qualify and identify firms for inclusion in the study that are 1) small in size, and 2) exporting or participating in international business activities. A copy of the telephone interview screening script is included along with this application (see " Radulovich - CSU Institutional Review Board Project Interviewer Informed Consent Interviewer Script - 12-05-07". If the contacted firm meets the criteria for inclusion in the dissertation research project, the primary owner or senior manager of the firm will be asked to participate in this research study. A brief explanation of the research study and estimated time commitment of 30 minutes will be provided via a telephone conversation. Upon agreement to participate in the research study, the subject (or primary principal business owner of the service firm) will be forwarded a cover letter and hard copy of the survey via mail. The subject will again be informed in the cover letter that their name, corporate identity, and responses will remain confidential and that all information gathered by the survey is anonymous. The subjects will also be informed that the survey contains empirically validated instruments, and questions which gather demographic information on the service firm.

The subject is then instructed in the survey cover letter to complete and return the hard copy of the anonymous survey in the envelope provided. Completed surveys will be collected by the India marketing research firm then forwarded to the Principal Investigator at CSU in batches. Upon return receipt of the surveys, the data will then be entered and analyzed by the Principal Investigator and Co-Principal or Student Investigator. Copies of the telephone qualifying script and cover letter which accompanies the mailed survey are also attached (see files titled "L. Radulovich Dissertation Survey cover letter" and " Radulovich - CSU Institutional Review Board Project Interviewer Informed Consent Interviewer Script - 12-05-07".

c. Make an explicit statement concerning the possible risks and benefits associated with participating in the research. Describe the nature and likelihood of possible risks (e.g., physical, psychological, social) as a result of participation in the research. Risks include even mild discomforts or inconveniences, as well as potential for disclosure of sensitive information. If a risk exists, how does it compare to those of daily living? What are your safeguards for avoiding risks, for protecting subjects' privacy, etc.?

There are no risks associated with participating in this research since responses are anonymous. Subjects will be asked to complete an anonymous survey. Since the survey instrument omits collection of personal data and avoids tracking of specific company information, a subject's response does not disclose sensitive information. The benefit to be realized by this dissertation research is a greater understanding of factors affecting the performance of service firms doing business internationally.

d. Describe measures to be taken to protect subjects from possible risks or discomforts.

Each survey completed will NOT contain any tracking data nor acquire personal or identifying data; therefore the respondent's name, business location, and responses will NOT be matched with data collected from the survey. Furthermore, respondent data will only be retained by the Principal Investigator and Student Investigator of this dissertation research study.

e. Describe precautions to ensure the privacy of subjects and confidentiality of information. Be explicit if data are sensitive. Describe coding procedures for subject identification. Include the method, location and duration of data retention. (Federal regulations require data to be maintained for at least 3 years)

As indicated above, only the Principal Investigator and Student Investigator of this dissertation research study will retain copies of the survey data. Data entry into a format required for analysis will be completed by the Student Investigator of this study and will not contain tracking information.

IV. Informed Consent Form

Yes	No	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Introduce you and your research (including names and phone numbers).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Provide the subject with a brief, understandable explanation of the research.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Explain the risks and benefits.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Explain the details of the time commitment for participation.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Explain how your protocol either protects confidentiality or is anonymous.*
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Mention that participation is voluntary, and that the subject may withdraw at any time without penalty.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Include the exact statement about contacting the IRB.**
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Provide a phone number where the subject may contact you for further information (students should include a phone number for themselves and also for their supervising faculty member).
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. Have a signature/date block for the subject to complete.***

* **Confidentiality and anonymity are not the same. Confidentiality means that the researcher will know the identity of specific subjects and their data. Anonymity means individuals' responses cannot be associated with the data they generate.**

** **"I understand that if I have any questions about my rights as a research subject I can contact the CSU Institutional Review Board at (216)687-3630," or if a minor, "I understand that if I have any questions about my child's rights as a research subject I can contact the CSU Institutional Review Board at (216)687-3630."**

*** **If you wish to dispense with a signed consent form, for either procedural or substantive reasons, be sure to include a clear statement of your reasons and your alternate procedure for obtaining consent.**

A cover letter to be included along with the survey instrument provides a disclosure of the subject's consent to participate by returning the survey and acknowledgement of the following statement included in the cover letter, "I understand that if I have any questions about my rights as a research subject I can contact the CSU Institutional Review Board at U.S. Country Code 001 + 216 687-3630." (Refer to copy of survey cover letter provided).


V. Copies of Instruments and Questionnaires

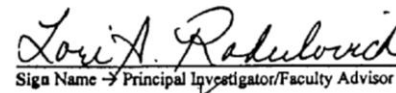
To complete this application, attach a copy of all questionnaires or other instruments. This application **MUST** include copies of instrumentation before approval can be granted.

Copies of instrument submitted on December 5, 2007.

VI. CERTIFICATION/SIGNATURE

I certify that the information contained in this protocol application and all attachments is true and correct. I certify that I have received approval to conduct this research from all persons named as collaborators and from officials of the project site(s). If this protocol is approved by the Cleveland State Institutional Review Board, I agree to conduct the research according to the approved protocol. I agree not to implement any changes in the protocol until such changes have been approved by The Cleveland State Institutional Review Board. If, during the course of the research, unanticipated risks or harm to subjects are discovered, I will cease collecting data and report them to IRB immediately.

 Sign Name → Principal Investigator/Faculty Advisor	12/06/07 Date	Dr. RAJ G. JAVALGI Print Name → Principal Investigator/Faculty Advisor
---	------------------	---

 Sign Name → Principal Investigator/Faculty Advisor	12/06/07 Date	Lori A. Radulovich Print Name → Principal Investigator/Faculty Advisor
--	------------------	---

_____ Sign Name → Principal Investigator/Faculty Advisor	_____ Date	_____ Print Name → Principal Investigator/Faculty Advisor
---	---------------	--

_____ Sign Name → Principal Investigator/Faculty Advisor	_____ Date	_____ Print Name → Principal Investigator/Faculty Advisor
---	---------------	--

Forward this completed form to:
Cleveland State University
Office of Sponsored Programs and Research (IRB)
2258 Euclid Avenue
Hannafin Hall
Cleveland, OH 44115-2405

APPENDIX C




Cleveland State University

College of Graduate Studies and Research
Office of Sponsored Programs and Research
Institutional Review Board (IRB)

Memorandum

To: Rajshekhar Javalgi
College of Business Administration

From: Barbara Bryant
IRB Recording Secretary 

Date: January 25, 2008

Re: Results of IRB Review of your project number: **28133-JAV-HS**
Co-Investigator: Lori Radulovich
Entitled: Factors affecting the internationalization of professional services: An empirical investigation

The IRB has reviewed and approved your application for the above named project, under the category noted below. Approval for use of human subjects in this research is for one year from today. If your study extends beyond this approval period, you must again contact this office to initiate an annual review of this research.

By accepting this decision, you agree to notify the IRB of: (1) any additions to or changes in procedures for your study that modify the subjects' risk in any way; and (2) any events that affect that safety or well-being of subjects.

Thank you for your efforts to maintain compliance with the federal regulations for the protection of human subjects.

Approval Category:

Date: January 18, 2008

Expedited Review: Project approved, Expedited Category 7

cc: Project file

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APPENDIX D

Pretest Rotated Factor Analysis Results

Measurement Item	Component				
	1	2	3	4	5
Entrepreneurial Orientation Cronbach alpha 0.81					
We believe that wide-ranging acts are necessary to achieve our objectives.	.086	.369	-.004	.659	-.199
We initiate actions to which other organizations respond.	.226	.034	.059	.749	.083
We are fast to introduce new products and services to the marketplace.	.233	.091	.341	.631	.074
We have a strong proclivity or tendency for high-risk projects.	.015	.261	.066	.775	.115
We are bold in our efforts to maximize the probability of exploiting opportunities.	.191	.203	.183	.694	.040
Human Capital Cronbach alpha 0.95					
Our employees are highly skilled.	.114	.905	.084	.103	.084
Our employees are widely considered the best in our industry.	.252	.854	-.046	.210	-.019
Our employees are creative and bright.	.121	.888	.131	.205	.100
Our employees are experts in their particular jobs and functions.	.104	.905	.122	.151	.040
Our employees develop new ideas and knowledge.	.092	.858	.216	.183	.018
Degree of Internationalization Cronbach alpha 0.85					
Please estimate the percentage of your company's total sales which are attributable to foreign sales.	.494	.213	.099	.298	.663
Compared to competitors, your firm's foreign sales revenue growth since the start of international activities is	.357	.138	.181	.174	.871

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Pretest Rotated Factor Analysis Results
(continued)

Measurement Item	Component				
	1	2	3	4	5
Service Innovation Cronbach alpha 0.88					
Service(s) offer unique benefits to the customer, not offered by competitors.	.193	.008	.855	.188	.047
Service(s) are radically different from competitor services.	.355	.046	.770	.160	.069
Services(s) provide higher quality than the competitors.	.120	.255	.792	.094	.104
Services(s) are highly innovative, replacing a vastly inferior alternative.	.351	.163	.752	.053	.114
Performance Cronbach alpha 0.94					
Please compare your firm over the past 3 years relative to your two most important competitors on Return on Investment (ROI)	.861	.229	.113	.155	.188
Please compare your firm over the past 3 years relative to your two most important competitors on Return on Assets (ROA)	.824	-.011	.343	.054	.255

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

APPENDIX E

**Full Scale Study
Frequency Tables of Variables**

Entrepreneurial Orientation Items

	EO1	EO2	EO3	EO4	EO5
Valid	201	201	201	201	201
Missing	0	0	0	0	0
Mean	5.46	4.71	5.12	5.35	5.30
Median	5.00	5.00	5.00	5.00	5.00
Mode	5	4	5	5	5
Std. Deviation	1.086	1.362	1.153	1.053	1.083
Variance	1.179	1.856	1.329	1.108	1.172
Skewness	-.399	-.507	-.226	-.658	-.366
Std. Error of Skewness	.172	.172	.172	.172	.172
Kurtosis	-.016	.531	.040	1.459	.124
Std. Error of Kurtosis	.341	.341	.341	.341	.341
Range	5	6	6	6	5
Minimum	2	1	1	1	2
Maximum	7	7	7	7	7

EO Item 1

	Frequency	Percent	Cumulative Percent
Valid 2	2	1.0	1.0
3	5	2.5	3.5
4	28	13.9	17.4
5	68	33.8	51.2
6	60	29.9	81.1
7	38	18.9	100.0
Total	201	100.0	

EO Item 2

	Frequency	Percent	Cumulative Percent
Valid 1	7	3.5	3.5
2	7	3.5	7.0
3	7	3.5	10.4
4	72	35.8	46.3
5	49	24.4	70.6
6	41	20.4	91.0
7	18	9.0	100.0
Total	201	100.0	

EO Item 3

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	2	1.0	1.5
	3	7	3.5	5.0
	4	53	26.4	31.3
	5	62	30.8	62.2
	6	50	24.9	87.1
	7	26	12.9	100.0
	Total	201	100.0	

EO Item 4

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	2	1.0	1.5
	3	6	3.0	4.5
	4	21	10.4	14.9
	5	85	42.3	57.2
	6	59	29.4	86.6
	7	27	13.4	100.0
	Total	201	100.0	

EO Item 5

		Frequency	Percent	Cumulative Percent
Valid	2	3	1.5	1.5
	3	5	2.5	4.0
	4	35	17.4	21.4
	5	71	35.3	56.7
	6	59	29.4	86.1
	7	28	13.9	100.0
		Total	201	100.0

Human Capital Items

		HC1	HC2	HC3	HC4	HC5
N	Valid	201	201	201	201	201
	Missing	0	0	0	0	0
	Mean	5.86	5.33	5.68	5.87	5.63
	Median	6.00	5.00	6.00	6.00	6.00
	Mode	7	5	7	7	6
	Std. Deviation	1.127	1.320	1.295	1.103	1.262
	Variance	1.270	1.743	1.678	1.217	1.594
	Skewness	-1.055	-.674	-1.020	-1.063	-.994
	Std. Error of Skewness	.172	.172	.172	.172	.172
	Kurtosis	1.403	.585	.794	1.662	1.149
	Std. Error of Kurtosis	.341	.341	.341	.341	.341
	Range	6	6	6	6	6
	Minimum	1	1	1	1	1
	Maximum	7	7	7	7	7

HC Item 1

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	1	.5	1.0
	3	4	2.0	3.0
	4	17	8.5	11.4
	5	43	21.4	32.8
	6	65	32.3	65.2
	7	70	34.8	100.0
	Total	201	100.0	

HC Item 2

		Frequency	Percent	Cumulative Percent
Valid	1	3	1.5	1.5
	2	3	1.5	3.0
	3	8	4.0	7.0
	4	33	16.4	23.4
	5	64	31.8	55.2
	6	43	21.4	76.6
	7	47	23.4	100.0
	Total	201	100.0	

HC Item 3

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	5	2.5	3.0
	3	6	3.0	6.0
	4	23	11.4	17.4
	5	40	19.9	37.3
	6	61	30.3	67.7
	7	65	32.3	100.0
	Total	201	100.0	

HC Item 4

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	1	.5	1.0
	3	4	2.0	3.0
	4	13	6.5	9.5
	5	49	24.4	33.8
	6	64	31.8	65.7
	7	69	34.3	100.0
	Total	201	100.0	

HC Item 5

		Frequency	Percent	Cumulative Percent
Valid	1	2	1.0	1.0
	2	3	1.5	2.5
	3	5	2.5	5.0
	4	24	11.9	16.9
	5	48	23.9	40.8
	6	60	29.9	70.6
	7	59	29.4	100.0
	Total	201	100.0	

Degree of Internationalization (DOI)

		D1	D2
N	Valid	201	201
	Missing	0	0
Mean		3.66	5.48
Std. Error of Mean		.104	.090
Median		4.00	6.00
Mode		4	6
Std. Deviation		1.478	1.281
Variance		2.185	1.641
Skewness		-.207	-.905
Std. Error of Skewness		.172	.172
Kurtosis		-.920	1.104
Std. Error of Kurtosis		.341	.341
Range		5	6
Minimum		1	1
Maximum		6	7

DOI Item 1 (FSTS)

		Frequency	Percent	Cumulative Percent
Valid	1	19	9.5	9.5
	2	31	15.4	24.9
	3	36	17.9	42.8
	4	49	24.4	67.2
	5	45	22.4	89.6
	6	21	10.4	100.0
	Total	201	100.0	

DOI Item 2 (Speed of growth)

		Frequency	Percent	Cumulative Percent
Valid	1	3	1.5	1.5
	2	2	1.0	2.5
	3	7	3.5	6.0
	4	27	13.4	19.4
	5	55	27.4	46.8
	6	58	28.9	75.6
	7	49	24.4	100.0
Total	201	100.0		

Innovativeness Items

	IN1	IN2	IN3	IN4
Valid	201	201	201	201
Missing	0	0	0	0
Mean	5.49	5.28	5.99	5.59
Median	6.00	6.00	6.00	6.00
Mode	6	6	6	6
Std. Deviation	1.136	1.239	.969	1.201
Variance	1.291	1.534	.940	1.443
Skewness	-.960	-.570	-.811	-.796
Std. Error of Skewness	.172	.172	.172	.172
Kurtosis	1.227	-.215	.186	.406
Std. Error of Kurtosis	.341	.341	.341	.341
Range	6	5	4	6
Minimum	1	2	3	1
Maximum	7	7	7	7

Innovativeness Item 1

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	3	1.5	2.0
	3	6	3.0	5.0
	4	26	12.9	17.9
	5	48	23.9	41.8
	6	85	42.3	84.1
	7	32	15.9	100.0
	Total	201	100.0	

Innovativeness Item 2

		Frequency	Percent	Cumulative Percent
Valid	2	5	2.5	2.5
	3	12	6.0	8.5
	4	36	17.9	26.4
	5	47	23.4	49.8
	6	70	34.8	84.6
	7	31	15.4	100.0
	Total	201	100.0	

Innovativeness Item 3

		Frequency	Percent	Cumulative Percent
Valid	3	3	1.5	1.5
	4	13	6.5	8.0
	5	38	18.9	26.9
	6	76	37.8	64.7
	7	71	35.3	100.0
	Total	201	100.0	

Innovativeness Item 4

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	1	.5	1.0
	3	9	4.5	5.5
	4	27	13.4	18.9
	5	42	20.9	39.8
	6	71	35.3	75.1
	7	50	24.9	100.0
	Total	201	100.0	

Performance Items

	PERF1	PERF2
Valid	201	201
Missing	0	0
Mean	5.49	5.40
Std. Error of Mean	.077	.080
Median	6.00	5.00
Mode	6	6
Std. Deviation	1.091	1.128
Variance	1.191	1.272
Skewness	-.657	-.675
Std. Error of Skewness	.172	.172
Kurtosis	.867	.875
Std. Error of Kurtosis	.341	.341
Range	6	6
Minimum	1	1
Maximum	7	7

Performance Item 1

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	1	.5	1.0
	3	5	2.5	3.5
	4	26	12.9	16.4
	5	63	31.3	47.8
	6	68	33.8	81.6
	7	37	18.4	100.0
Total		201	100.0	

Performance Item 2

		Frequency	Percent	Cumulative Percent
Valid	1	1	.5	.5
	2	3	1.5	2.0
	3	3	1.5	3.5
	4	33	16.4	19.9
	5	61	30.3	50.2
	6	67	33.3	83.6
	7	33	16.4	100.0
Total		201	100.0	

APPENDIX F

Full Scale Study Rotated Factor Analysis Results

Measurement Item	Component				
	1	2	3	4	5
Entrepreneurial Orientation Cronbach alpha 0.82					
We believe that wide-ranging acts are necessary to achieve our objectives.	.207	.070	-.005	.769	-.008
We initiate actions to which other organizations respond.	.060	.075	.085	.704	.201
We are fast to introduce new products and services to the marketplace.	.117	.039	.368	.646	.231
We have a strong proclivity or tendency for high-risk projects.	.179	.092	.092	.752	.036
We are bold in our efforts to maximize the probability of exploiting opportunities.	.230	.144	.189	.744	.072
Human Capital Cronbach alpha 0.96					
Our employees are highly skilled.	.909	.057	.116	.132	.150
Our employees are widely considered the best in our industry.	.864	.137	-.024	.213	.091
Our employees are creative and bright.	.901	.040	.166	.186	.110
Our employees are experts in their particular jobs and functions.	.925	.084	.128	.124	.026
Our employees develop new ideas and knowledge.	.871	.019	.200	.200	.043
Degree of Internationalization Cronbach alpha 0.89					
Please estimate the percentage of your company's total sales which are attributable to foreign sales.	.233	.449	.185	.324	.670
Compared to competitors, your firm's foreign sales revenue growth since the start of international activities is	.125	.342	.204	.142	.881

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Full Scale Study Rotated Factor Analysis Results
(continued)

Measurement Item	Component				
	1	2	3	4	5
Service Innovation Cronbach alpha 0.88					
Service(s) offer unique benefits to the customer, not offered by competitors.	.119	.174	.824	.178	.133
Service(s) are radically different from competitor services.	.070	.194	.810	.219	.244
Services(s) provide higher quality than the competitors.	.156	.208	.785	.065	.028
Services(s) are highly innovative, replacing a vastly inferior alternative.	.157	.206	.794	.098	.119
Performance Cronbach alpha 0.86					
Please compare your firm over the past 3 years relative to your two most important competitors on Return on Investment (ROI)	.150	.887	.143	.139	.193
Please compare your firm over the past 3 years relative to your two most important competitors on Return on Assets (ROA)	-.005	.871	.266	.067	.221

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.