THREE ESSAYS ON ORGANIC AND INORGANIC GROWTH IN

INTERNATIONALIZED MARKETS

By

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A dissertation submitted in partial fulfillment of
the requirements for the degree of

DOCTOR OF PHILOSOPHY

WASHINGTON STATE UNIVERSITY
College of Business

MAY 2012

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To the faculty of Washington State University:

The members of the Committee appointed to examine the dissertation of KEVIN CHASTAGNER find it satisfactory and recommend that it be accepted.

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ACKNOWLEDGEMENT

I would like to express my thanks to those who have been with me along this journey. First, I would like to thank my committee members: Professor Cullen who has challenged me since I knew him as an undergrad and is always willing to help, Professor Sahaym who has been close through the whole PhD program and gone out of his way to take care of any issues that I have had, and Professor Johnson who has provided unique insight and guidance in all she is a part of. I am blessed that I can say I have been their student. Thank you.

Second, I would like to thank all of the faculty, staff, and friends I have come in contact with while in the program especially Dr. Muehling, Dr. Burns, Dr. Joireman, Dr. Rose, Dr. Gregiore, Dr. Ahn, Dr. Chen, and Dr. Butterfield for their support and encouragement along the way; Sang, Willa, Dale, Charlie, Farris, Adi, Doug, Dustin, Tera, Nathan, Todd, Sam, Dave, Diane, Youn, Mark, Brian, Sarah, and Monte for the friendship and support; Chris, Janet, Lael, and Barbara for their encouragement and help.

Third, I would like to thank all of my friends for their support through the process: Aaron, Cori, Jordan, Jim, Stacey, Aaron, Dina, Matt, Allie, Caleb, Paul, Brandon, Brian, Andrew, Taila, Brendon, and Cody.

Fourth, I would like to thank my parents and brother and sister-and-law as they have been more than happy to talk me through the process and listen as I struggled. I appreciate all they have done.

Finally, I would like to thank my wife, Nicole, for her love and patience. The understanding she showed has always been encouraging and her support has helped immensely.
THREE ESSAYS ON ORGANIC AND INORGANIC GROWTH IN INTERNATIONALIZED MARKETS

Abstract

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May 2012

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This dissertation investigates internationalized markets through three essays. The first essay examines the relationship between national inward FDI and firm level innovation, and specifically what firm and environmental conditions promote the spillover effect of FDI on firm innovation. Based on the knowledge-based view this paper tests the ability of information to enter the firm from the national environment. From almost 12,000 firms residing in 32 different nations results show that FDI does have a positive relationship with firm level innovation and that both firm and national level characteristics play a role in the transfer of resources into the firm.

The second essay looks at firms from emerging markets acquiring firms from the nation of their cross listing, the US. Based on the tenets of the knowledge-based view, we expect that firms who are able to focus on the acquisition of the developed nation firm will be able to integrate the resources they gain access to. In this way we test how the firms industry influences its ability to leverage its diversified knowledge in reaping post-acquisition performance gains. Our tests show that industry competition negatively influences this relationship while industry
munificence positively influences this relationship. We also show the best-case situation to be when firms have a diversified knowledge base, are in a low competition industry, and have high resource munificence in their industry.

Finally, the third essay looks at the role of knowledge breadth in post-acquisition performance. Building on the knowledge-based view we test the hypothesis that the focal firm’s knowledge breadth has an inverse-U shaped relationship with post-acquisition performance. We also test how the firm’s industry uncertainty and the nation’s cultural distance influence this relationship. We do these tests on both market measures and internal growth measures of performance. Using 1,209 acquisitions with targets from 40 different nations we find differing results between the external and internal market growth measures and significant cross-level interactions.
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Dedication

This dissertation is dedicated to my wife, Nicole.

I love you.
CHAPTER ONE
INTRODUCTION

This dissertation consists of three papers investigating different areas within internationalized markets. The first essay examines the role of inward FDI in firm level innovation. We test the knowledge-based view as we expect that inward FDI has the ability to bring information into the environment and that firms have the opportunity to gain from spillovers within the environment they are a part of. Integrating spillover literature with the knowledge-based view and absorptive capacity, we test hypotheses suggesting that firms recognize spillovers from FDI, that national level institutions and government stability influence the relationship between FDI and innovation and that absorptive capacity influences how well firms can bring in the knowledge from the environment. We seek the ability to test how national level variables influence firm level outcomes and how firms can address this. We hope that our tests can provide insight for both firm managers and policy makers in nations.

The second essay develops theory at multiple levels in order to address emerging markets firm’s motivations and resulting post-acquisition performance or a developed nation target firm. More and more firms from emerging economies are acquiring firms from developed economies. We expect that the level of diversification of these firms has the ability to influence the performance of their inorganic growth. In order to better understand this relationship we build theory centering on the resource-, knowledge-, and capability-based views. These lenses allow us to investigate the role that the industry environment of the target nation plays in the post-acquisition performance as well. We expect that diversification will have a positive effect on post-acquisition performance; further, we expect that the level of competition in the industry and
the level of resource munificence will moderate this relationship. This examination has possible implications not only for managers of emerging economy firms but also for global development.

Finally, in the third essay, we look at the role of knowledge breadth in post-acquisition performance. Building on the knowledge-based view we test the hypothesis that the focal firm’s knowledge breadth has an inverse-U shaped relationship with post-acquisition performance. We also test for a negative relationship between industry uncertainty and post-acquisition performance. Further we expect that uncertainty negatively moderates the relationship between knowledge breadth and post-acquisition performance and that cultural distance positively moderates the relationship. We test both market measures and internal growth measures of performance. Using 1,209 acquisitions with targets from 40 different nations we find support for our hypotheses on internal growth measures but different results for the external market measures.
CHAPTER TWO

PAPER ONE

FDI AND FIRM INNOVATION: THE ROLE OF THE INSTITUTIONAL ENVIRONMENT AND ABSORPTIVE CAPACITY

Abstract
In this study, we examine the role of FDI in motivating emerging economies enterprises’ (EMEs) innovation in the presence of absorptive capacity and favorable national environment. We draw on the insights of knowledge-based view, absorptive capacity and international spillover literature to explore the relationship between FDI, national context, absorptive capacity, and EME-innovation. Our results suggest that national-level factors enhance the FDI-innovation relationship. We also find that absorptive capacity enhances the relationship between FDI and EME innovation. Overall, consistent with our overarching theme, our results show that absorptive capacity further enhances the joint affects of FDI and political stability on innovation. Our findings contribute to the literature on international business, global strategy and firm-innovation literature.

INTRODUCTION

With the changing world economy during the last three decades, firm innovation is playing an increasingly important role in the performance of enterprises from emerging markets (EMEs, henceforth) (Ramamurti, 2009). Concomitantly, foreign direct investment (FDI) has been on the rise in the global economy with important consequences for the global economy (Bwalya, 2006; Yang, Jiang, Kang, and Ke, 2009). EMEs that are “catching up with
technological leaders in the West (c.f., Liu et al., 2010)” are actively seeking knowledge from a variety of sources in order to develop innovative product offerings. FDI in a nation is one such fertile source of knowledge, technology, routines and capabilities as inward FDI leads to these transfers (Bwalya, 2006, Tian, 2007). Acquisition of knowledge, technology, routines and capabilities for developing innovations allows such firms to grow in the international market while promoting the growth of their nation (Grög and Strobl, 2001; Tian, 2007) economies with such EMEs can move forward technologically as well as increase their gross domestic product (GDP). In view of the above, it is somewhat surprising that literature is yet to focus its attention on the effects of foreign direct investment (FDI) on firm innovation specifically in the presence of institutional opportunities and constraints and the firms’ absorptive capacity.

Our extensive review of the literature shows that extant literature has predominantly explicated the antecedents of innovation at the firm level (e.g., Afuah, 2002; 2009; Christensen, 1997; Damanpour, 1991). There is a gap in the literature in explicating the role of national and institutional factors in promoting innovation at the firm level though Drazin and Schoonhoven (1996) suggest that innovation is one of the few strategy concepts that can be studied across multiple levels. In response to numerous calls by the scholars (e.g., Drazin and Schoonhoven, 1996, Gupta, Tesluk, and Taylor, 2007; Rothaermel and Hess, 2007), we attempt to fill the above gap in the literature by investigating the relationship between national FDI and firm level innovation. Besides the importance of FDI and firm innovation, our work helps to explain the nuances of how FDI leads to innovation in firms and the implications of how this promotes EMEs innovation productivity (e.g., Afuah, 2002; Grilliches, 1979; Solow, 1957). Innovation is defined as the generation, development, and implementation of new ideas and behaviors.
We draw on the insights of knowledge-based view, absorptive capacity and international knowledge spillovers to develop an overarching theme that FDI in combination with favorable firm and national level factors leads to innovation productivity. Because technology transfer is considered to be one of the important outcomes of inward FDI (Bwalya, 2006), we are interested in how the level of FDI in a nation influences the innovative performance of a firm in that nation. While there have been a few recent studies looking at the potential for spillovers (e.g., Branstetter and NBER, 2004; Ford and Rork, 2010), and looking at the role of national level factors in the firms’ level of innovation (e.g., Mahmood and Rufin, 2005; Rothaermel and Hess, 2007), to the best of our knowledge, none have looked into the influence of FDI in combination with national and firm level variables on firm level innovation. Empirically, we seek to test how FDI relates to firm innovation and how both firm and national level factors interact with this relationship in the context of EMEs.

We begin by reviewing the literature and with a discussion of the knowledge based view, spillover literature and absorptive capacity in the context of EMEs’ quest for innovation. Second, we explore the role of FDI in firm level innovation. Finally, we explore how characteristics of the nation influence the relationship between FDI and innovation and finally, we examine the role the absorptive capacity of the firm plays in bringing information into the firm for use in developing innovation. Through this we are able to control for, test, and extend theory in the area of relationships between national context, absorptive capacity, FDI, and innovation.
THEORY AND HYPOTHESES DEVELOPMENT

Knowledge-Based View

The knowledge-based view (KBV) of the firm sees knowledge as the most strategically important resource of the firm and identifies firms as repositories of knowledge (Grant, 1996; Kogut and Zander, 1996). It suggests that the key to generating competitive advantage is differential abilities to access and generate knowledge both from internal and external sources (DeCarolis and Deeds, 1999; Winter and Szulanski, 1999). KBV also posits that the efficiency of firms over markets is achieved through superior knowledge, with recombination and learning that is facilitated by social context (Kapoor and Kim 2009, Kogut and Zander, 1996).

The context-specific nature of knowledge makes it difficult to imitate and replicate other’s knowledge. Further, knowledge-based resources are particularly difficult to imitate because they often rest on a foundation of causal ambiguity, especially when the resource consists, at least in part, on tacit knowledge (Reed and DeFillippi, 1990). The accumulation of knowledge can be a path dependent and socially complex process as well, making imitation even more difficult. To keep pace with dynamic environment, managers must frequently generate, recombine and adapt their knowledge base, though it is difficult to achieve (Grant, 1996, Szulanski, 1996). In the context of international business and FDI, KBV provides useful insights on the issues related to transfer, acquisition and use of knowledge for competitive advantage.

FDI and Innovation

As knowledge creation and acquisition are the most crucial activities of firms (Grant, 1996), managers from the emerging market enterprises (EMEs) look for a variety of sources for useful knowledge that could help them develop innovations for competitive advantage. Such firms may develop their own innovations, but few firms, particularly in emerging economies,
possess all the elements required for successful and continuous technological development. Alert managers actively seek spilled knowledge that comes from outside the firm as it is less costly and faster to acquire such knowledge rather than developing it internally (Mansfield, 1988).

FDI is a powerful concept inside of research looking at national productivity. FDI as a non-debt resource allows firms to take on investment projects, increase the technological development at the national level, and facilitate technology transfers (Bwalya, 2006). One of the main outcomes of interest in FDI is national growth and many papers have shown the importance of FDI in national growth (e.g., Globerman, 1979; Kokko, Tansini, and Zejan, 1996; Li and Liu, 2004; Ruane and Ugur, 2004).

While research has looked at both inward and outward FDI, we are particularly interested in inward FDI. Inward FDI allows for technology spillovers in the direction of benefiting the firm in the host country. Adapting from Branstetter and NBER (2004), spillovers are defined as the process by which a firm (e.g., an EME in our context) learns from the research outcomes of others’ (e.g., MNEs’) research projects and is able to enhance its own research productivity with this knowledge without fully compensating the other inventors (e.g., MNEs) for the value of this learning—firms (e.g., an EME in our context) often exploit such spillovers and enhance their innovation productivity. In our context, spillovers take place when the presence of multinational firms or foreign investment increases the productivity of firms within the domestic firms in the host nation. The idea that multinationals are more research-productive than their indigenous counterparts lends credence to the concept that there might be knowledge spillovers to less productive firms in the host country (Griffith, Redding, and Simpson, 2004).

Kokko (1992) identifies four ways that technology can be diffused through FDI: the demonstration-imitation effect, competition effect, foreign linkage effect, and the training effect.
Görg and Strobl (2001) and Tian (2007) further suggest that FDI enhances innovation productivity of the domestic firms in following ways. The first is the linkage effect. Domestic firms learn from observing foreign-investor-enterprises (FIEs) due to close relationship with them. They benefit from the technical support, the demand, and the supply provided by the FIEs with which they have an upstream or downstream relationship in the business chains. Second is the competition effect. Competition from FIEs forces domestic firms to increase their competitive capacity by innovating, reforming management styles and updating production technology. The third is an employment and training effect. FIEs train their employees, who may later move to domestic firms with acquired skills. Fourth, they imitate or mimic the technologies and management styles of the FIEs as such investor-firms are generally advanced in technology and management practices (Kokko, 1992).

For the managers of EMEs, FDI involving MNEs with superior technology, management skills and intangible assets is one such fertile source for knowledge acquisition; indeed, the knowledge generated in one country often spills over to other countries through such FDI (Buckley et al., 2007; Liu et al., 2010; Tian, 2007). Knowledge spillover has played a crucial role in building EMEs’ innovative capability—Liu et al. (2010) state that such spilled knowledge is particularly important for firms in emerging economies who are “catching up” with technological leaders in the West. FDI often involves inter-firm employee mobility between MNEs and local firms, which is associated with innovation and patenting (Audretsch and Lehmann, 2005; Kim & Marschke, 2005; Singh 2005). A number of researchers have found that external knowledge spillovers through FDI and human mobility determine the innovation performance of Chinese high-tech firms, and Chinese small and medium enterprises (SMEs) benefit from external
knowledge spillovers in the given geographic cluster (Liu and Buck, 2007; Liu et al. 2010; Tian, 2007).

Past work has shown that it is possible for knowledge to spill across states and we see the knowledge and technological spillover idea coming up very early in strategic management research (Ford and Rork, 2010; Marshall, 1920). While most research has looked into the indirect effects of spillovers on economic growth or productivity in an economy (e.g., Wooster and Diebel, 2006) we seek to understand the direct effects of FDI and spillovers on firm innovation.

Similar to Ahuja et al. (2008), we are focusing on technical innovation and as Van de Ven (1986) points out, this is closely coupled with administrative, or process, based innovations as well. These technology based developments share motivators that come out of the literature on FDI in that FDI can facilitate the technology spillovers inside of a nation. More specifically, we are interested in the development and upgrading of product lines and the utilization of new technology in product lines. This provides us with a foundation for examining the factors influencing technological innovation on both the product and process sides (Damanpour, 1991).

According to Tian (2007), FDI provides modern technology including product, process, and distribution technology, as well as management and marketing skills (Blomström and Kokko, 1998). FDI is a package of capital, technology and managerial skills, and thus an important source of both direct capital inputs and technology and knowledge spillovers. FDI diffuses knowledge related to international marketing, established international distribution networks and lobbying power in their home markets (Blomström and Kokko 1998). FDI contributes to efficiency by breaking supply bottlenecks, introduces new know-how by demonstrating new technologies and training workers who later take employment in local firms,
breaks down monopolies and stimulates competition, transfers technologies to local suppliers, and forces local firms to increase their managerial efforts. Domestic firms get motivated to innovate so that they can later reach global markets with their own innovations (Blomström and Kokko, 1998; Liu and Buck, 2007; Liu et al. 2010). It is clear that spillovers provide the opportunity for exploitation of knowledge and/or technologies acquired from FIEs. As such, we posit that through spillovers FDI is positively related to firm level innovation. Thus, we propose our base hypothesis:

**Hypothesis 1: FDI is positively related to firm innovation.**

**FDI, National Context, and Innovation**

While we are interested in the relationship between national level FDI and firm level innovation it is naïve to look at only this relationship when there has been a preponderance of research in areas relating to FDI. The first of these is the relationship between national level FDI and the characteristics of the nation. KBV highlights the importance of the national level characteristics in firms transferring and gaining knowledge. Kogut and Zander (1993) show the importance of institutions as the lubricant for the transference of knowledge and the flow of information. Tallman (2003) further highlights the importance of Kogut and Zander’s (1993) work because of the transition of thinking it brought about for multinational firms. He also points out their discussion of boundary expansion and the relation of this to knowledge (Tallman, 2003). From this review it is clear that the flow of knowledge across borders is firmly rooted in the tenets of KBV.

In terms of knowledge flows, Han (2010) discusses the importance of dealing with the transition of tacit knowledge in cross-border spillovers. Spillovers that take place in a nation need an environment that cultivates this knowledge or information transfer. Chong and Calderon
(2000) examine the relationship between institutional measures and national economic development. At the same time Keefer and Knack (1997) suggest that as institutional level factors degrade there are detrimental effects to a vast range of economic and growth based factors.

Coming from classic sociology, institutional theory claims that institutions play a pivotal role in the structural dynamics of an economy (Parsons, 1951). The institutional quality in a nation provides the firm with options for how to deal with strategic maneuvers. This is because the institutions in a nation provide the context through which the firm can make decisions (Ingram and Clay, 2000). North (1991) highlights that firms are dependent upon the rules of the game, which are set by the institutions in the nation that they are a part of. Firms generally develop and match their strategies with the given institutional guidelines, norms and values for maximizing the benefits that can be accrued by maintaining consistency with the public policy (Baumol, 1990; Huang and Wei, 2006; Oliver, 1997). In essence, institutional quality affects property rights, trade, productivity, and economic growth (Borrmann, Busse, and Neuhaus, 2006; Clarke 2001; Sobel, 2008).

Fienberg and Majumdar (2001) show the importance of the national context when dealing with FDI and research and development. The flow of knowledge or technology from spillovers is lubricated by the nature of the national context that the spillover is a part of. Oliver (1997) highlights the significance of dealing with the firms’ institutional environment when dealing with a valued resource like knowledge. Based on the tenets of institutional theory and KBV, we expect that when institutional quality in a nation is higher the spillovers in that nation will be higher. Based on our definition of spillover this means that there would be higher levels of innovation recognized for the firm. As such we propose two hypotheses: first, that rule of law
moderates the relationship between FDI and firm innovation to where, as rule of law increases the relationship becomes stronger. Second, that the political stability in a nation moderates the relationship between FDI and firm innovation to where, as political stability increases the relationship between FDI and firm innovation increases. As a result, we hypothesize the following two relationships:

*Hypothesis 2: Rule of law moderates the relationship between FDI and firm innovation such that when rule of law is high the relationship is stronger.*

*Hypothesis 3: Political stability moderates the relationship between FDI and firm innovation such that when political stability is high the relationship is stronger.*

The Role of Absorptive Capacity

Up to this point we have assumed that the essence of the relationship between national FDI and firm innovation is at the level of the nation. However, we cannot neglect the role that the firm plays in the transmission of information and technology from FDI. When dealing with firm level characteristics and the flow of information and technology, absorptive capacity must be addressed. Research has shown that firms with greater absorptive capacity can recognize and utilize information that comes in (Keller, 1996; Blomstrom and Kokko, 2003; Rogers, 2004). Research has looked into how nations recognize benefits from national FDI through absorptive capacity measured by human capital accumulation (e.g., Mingyon, Shuijun, and Qun, 2006). While the national level has been investigated, we are interested in how firm level absorptive capacity moderates the relationships we have looked at between FDI and firm innovation. Han (2010) suggests the importance of the obstacles that a firm faces in acquiring and absorbing knowledge in spillovers.

Absorptive capacity is the ability to recognize potentially valuable new knowledge, assimilate new knowledge, and use assimilated knowledge to create new knowledge and
commercial outputs (Lane, Koka and Pathak 2006, Cohen and Levinthal 1990). A firm’s ability to acquire knowledge from their external environment is a byproduct of their own stocks of knowledge, for example those cultivated through R&D (Cohen and Levinthal 1989, Lane et al. 2006). Such stocks of knowledge keep them alert to the new knowledge or knowledge spillovers in the product-markets (Cohen and Levinthal 1989, Lane et al. 2006). These also provide an in-house technical capability that keeps firms abreast of the latest developments in the area outside firm boundaries. They also facilitate the assimilation of new technologies for developing new recombinations (Mowery 1983, Cohen and Levinthal 1990, 1994).

Prior stocks of knowledge enable firms to identify, evaluate, assimilate, apply and exploit knowledge from the environment—this is particularly useful in leveraging the spillovers (Cohen and Levinthal 1994, Mowery et al., 1996, Tsai 2001). Absorptive capacity enables firms to go beyond learning-by-doing and incrementing processes. Firms become more attuned to learning, recombining and reconfiguring new knowledge elements. They get better at assimilating any knowledge spillovers in the environment and explore a wider range of technologies for producing architectural, modular and radical innovations. They also become more sensitive and familiar with the developments in science and in the markets (Lavie and Rosenkopf 2006).

McCann and Folta (2011) further suggest that firms with higher stocks of knowledge, which have higher absorptive capacity, will be able to benefit more from available knowledge spillovers. This is particularly useful in the context of domestic firms benefitting from the FDI and developing innovations. As discussed in the introduction, consistent with Damanpour (1991), innovation is defined as, “the generation, development, and implementation of new ideas and behaviors.” This broad definition of innovation spans across technological, administrative, and organizational innovation (Ahuja, Lampert, and Tandon, 2008; Van de Ven, 1986). This
definition also covers most of the past research on innovation, including innovation in areas such as management innovation (Birkinshaw, Hamel, and Mol, 2008), sustained product innovation (Dougherty and Hardy, 1996), initial public offerings (Heeley, Matusik, and Jain, 2007), networks (Ibarra, 1993), slack (Nohria and Gulati, 1996), multinational organizations (Nobel and Birkinshaw, 1998), and alliances (Sampson, 2007), to name a few.

In summary, absorptive capacity allows firms to identify, evaluate, assimilate, apply and exploit knowledge from the environment (Cohen and Levinthal, 1994; Mowery, Oxley, and Silverman, 1996; Tsai, 2001). Through absorptive capacity, firms scan and monitor the environment for useful technologies (Deeds, 2001). In this way, firms recognize information that is available in their environment. In terms of the relationship between FDI and innovation, absorptive capacity allows the firm to recognize information that has come into the nation through FDI. Absorptive capacity strengthens this relationship by allowing firms to recognize and utilize the information that is in the market. Further, absorptive capacity allows firms to not only recognize but also utilize acquired knowledge, and thus increases their realized spillovers (Blomström and Sjöholm, 1999; Meyer and Sinani, 2008). We propose that absorptive capacity moderates the relationship between FDI and firm innovation such that when a firm’s absorptive capacity is higher it is able to utilize more of the information and technology from the spillovers that exist. This leads us to hypothesize the following relationship:

Hypothesis 4: Absorptive capacity moderates the relationship between FDI and firm innovation such that when absorptive capacity is high the relationship is stronger.

Similarly, we expect that absorptive capacity would play a similar role in the firm’s development of innovation when the national context is taken into account. While the institutional context has the ability to increase the level of innovation a firm sees from FDI, we hypothesize that this is even more so the case when a firm has higher levels of absorptive
capacity. Higher institutional quality provides a supportive investment environment such that the flow of FDI gets lubricated. Specifically, rule of law provides flow of information and knowledge exchange in a safe environment and it is related to higher trade and growth. Political stability provides consistency in government policies related to knowledge exchange and innovation. Overall, superior institutional environment promotes trade, inward FDI, innovation productivity, and national growth. In the presence of superior institutional environment such as rule of law and political stability, presence of domestic absorptive capacity in EMEs enables them to scan, monitor and utilize spilled knowledge in safe, secure and consistent environment with a focus toward innovation productivity. As a result, we put forward the following two hypotheses:

*Hypothesis 5: Absorptive capacity moderates the interaction between FDI and rule of law on innovation such that when absorptive capacity is higher the interaction is stronger.*

*Hypothesis 6: Absorptive capacity moderates the interaction between FDI and political stability on innovation such that when absorptive capacity is higher the interaction is stronger.*

**METHODS**

**Sample**

At the firm level we use the “Productivity and the Investment Climate Private Enterprise Survey” from The World Bank Group (The World Bank Group, 2005). The survey covers a broad range of questions looking at topics such as ownership structure, innovation, labor relations, investment climate, and business-government relations and is conducted in face-to-face interviews and more information can be found at the World Bank Group (www.worldbank.org). At the national level we use the Governance Indicators from the World Bank (Kaufmann et al., 2003), the Human Development Index (HDI) published by the United Nations (United Nations Development Program (UNDP), 2005), and Foreign Direct Investment data from the United
Nations (United Nations Conference on Trade and Development (UNCTAD), 2010). After merging the data sets on our variables of interest, we have a total sample size of 11,937 firms covering a total of 32 nations (see Appendix A for a list of included countries).

Measures

For our dependent variable of innovation, we used three questions about firm initiatives and then created a summated measure of innovation. As Damanpour (1991) points out, innovation can be more precisely represented by measuring different types of innovation. We generated a summed measure to capture the innovation based on three items, each of which can indicate innovation but are not necessarily correlated. Specific items include whether a firm developed a new product line, upgraded an existing product line, or introduced new technology that has substantially changed the way that the main product line is produced (1= yes and 0=no). Because of the formative nature of our measure, we do not report alpha values (Bollen and Lennox, 1991).

At the firm level our independent variables of interest comes from The World Bank Group survey. We use The World Bank Group survey to obtain our absorptive capacity measure. We proxy for a firm’s absorptive capacity by utilizing the firm’s R&D intensity. R&D intensity was calculated by taking the amount of R&D spending and dividing it by the total sales of the firm as reported in the survey. At the firm level we also control for other concepts that might influence the level of innovation, these include: the size of the firm by using the total employment of the firm, the sector from which the firm is from, coded as a “1” for manufacturing and a “0” for other, the age of the firm, and the ownership of the firm as a percentage of the ownership that is foreign (Ahuja et al., 2008; Camison-Zornoza et al., 2004).

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1 We are not concerned with common method bias for the World Bank data as it is asking direct questions of the individual filling out the survey and not questions that deal with perception.
FDI is measured as a percentage of a nation’s Gross Domestic Product from the United Nations Conference on Trade and Development (United Nations Conference on Trade and Development (UNCTAD), 2010). At the national level, rule of law and the political stability of a nation are measured by the Governance Indicators from the World Bank. According to Kaufmann et al. (2003: 4) these indicators “measure the success of a society in developing an environment in which fair and predictable rules form the basis of economic and social interactions.” At the national level we control for the Human Development Index (HDI) published by the United Nations (United Nations Development Program (UNDP), 2005). This index covers a wide range of critical issues and is calculated based on life expectancy, knowledge and education, and the standard of living for the given nation. More information and data can be obtained from (http://hdr.undp.org/en/). While these national level variables are all fairly close we are interested in narrowing the scope of our variable of interest, making it necessary to partial out other explanations.

MODEL

Because of the multilevel nature of our proposed theory we require a multilevel modeling technique that allows us to partition the variance across both of these levels while being able to investigate the cross-level interaction of the variables. In order to do this, we utilize hierarchical linear modeling (HLM) with restricted maximum likelihood estimation (Bryk and Raudenbush, 1992). HLM allows us to investigate the effect of variables from different levels on firm level factors while maintaining the correct level of analysis.

Utilizing HLM, we can investigate the firm level hypotheses through the use of a within-group analysis. This allows us to look at how the firm level predictors affect the intercept of innovation and the predictors corresponding slopes. The national level hypothesis is tested with a
between-group analysis showing the effect of the national level predictors on the intercept of innovation. Finally, we investigate the cross level interaction by testing for a significant national level affect on the firm level slope (Heck and Thomas, 2009).

Heck and Thomas (2009) explain the use of the interclass correlation (ICC) in determining whether the multilevel framework is the direction to move with the analysis. They define the ICC as a measure of, “the extent of variance that exists between versus within groups (Heck and Thomas, 2009: 21).” They also suggest that when the ICC is small (<.05) there are minimal differences between the two but when it is substantial there is a high likelihood that they are quite different from each other. Hox (1998) suggests that ignoring the clustering effect of multilevel data has the ability to produce spuriously significant effects. The ICC of innovation for our model is calculated by dividing the between group variance by the sum of the between group and within group variance. This results in an ICC of .12. Further, there is some suggestion that what should be looked at with multilevel techniques is the design effect. This is calculated as: Design Effect = 1+ (average cluster size – 1) x ICC. In our case, this yields a design effect of 45.64. Using Muthen and Sattora (1995), it has been suggested that a design effect over 2 (2 is considered small) is significant showing that it is important for us to examine the relationship at both levels (Maas and Hox, 2005).

To interpret our results, we centered our variables in the model. We group-mean centered (i.e., nation) our firm level variables except for sector because of its binary nature. Since we investigate a cross-level interaction, we also follow the recommendations of Heck and Thomas (2009) and center the level 2 variables at the grand-mean. This allows us to interpret the slopes as outcomes model while taking into account all of the relationships. At the firm level, we regressed our innovation measure onto our firm level independent variables and controls. The
intercepts and slopes terms from the level 1 model become our dependent variables at level 2. Therefore, the level 1 intercept was regressed onto FDI, rule of law, political stability, and our national level controls to show how they affect the level of average innovation across nations. Hypotheses 1 was tested with Model 2, the two way interactions of hypotheses 2 and 3 were tested using Model 3, the two-way cross level interaction of hypothesis 4 was tested with Model 4, and the three-way cross level interactions of hypotheses 5 and 6 were tested with Model 5.

RESULTS

Table 1 shows the correlations among the variables in our model and shows the variables separated by the national level and firm level. Table 2 presents the results of the models included in our hypotheses. Model 1 includes the controls at both levels of the model. Model 2 includes the singular term of the main hypotheses for FDI. Model 3 tests the two-way interactions at the national level. Model 4 includes the two-way cross level interaction of absorptive capacity and FDI and Model 5 test the three-way cross level interactions.
Table 1
Correlations\textsuperscript{a}

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Foreign Direct Investment</td>
<td>2.69</td>
<td>4.34</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Human Development Index</td>
<td>0.80</td>
<td>0.12</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Political Stability</td>
<td>0.07</td>
<td>0.71</td>
<td>0.27</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Rule of Law</td>
<td>0.13</td>
<td>0.90</td>
<td>0.38</td>
<td>0.83</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Sector</td>
<td>0.56</td>
<td>0.50</td>
<td>0.11</td>
<td>0.35</td>
<td>0.39</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Size</td>
<td>157.95</td>
<td>835.72</td>
<td>0.01</td>
<td>0.06</td>
<td>0.07</td>
<td>0.09</td>
<td>0.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Age</td>
<td>18.27</td>
<td>17.87</td>
<td>-0.05</td>
<td>0.06</td>
<td>0.07</td>
<td>0.09</td>
<td>0.12</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Ownership</td>
<td>9.04</td>
<td>26.52</td>
<td>0.00</td>
<td>0.03</td>
<td>0.07</td>
<td>0.05</td>
<td>0.06</td>
<td>0.07</td>
<td>-0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Absorptive Capacity</td>
<td>0.01</td>
<td>0.14</td>
<td>-0.02</td>
<td>0.02</td>
<td>0.03</td>
<td>0.03</td>
<td>0.05</td>
<td>0.00</td>
<td>0.01</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>10 Innovation</td>
<td>1.25</td>
<td>1.12</td>
<td>0.02</td>
<td>0.09</td>
<td>0.14</td>
<td>0.09</td>
<td>0.27</td>
<td>0.08</td>
<td>0.06</td>
<td>0.07</td>
<td>0.05</td>
</tr>
</tbody>
</table>

\textsuperscript{a} n = 11,937, level 1; n = 32, level 2.
Correlations greater than .019 are significant at p<.05, Correlation greater than .022 are significant at p<.01.
Correlations were calculated at the firm level thus weighting the national level variables by the national sample size.
Table 2
Model Estimates

<table>
<thead>
<tr>
<th>Variables</th>
<th>Hypothesized</th>
<th>Sign</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>b</td>
<td>s.e.</td>
<td>b</td>
<td>s.e.</td>
<td>b</td>
</tr>
<tr>
<td><strong>Firm Level (Level 1)</strong></td>
<td></td>
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<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorptive Capacity</td>
<td>4.08***</td>
<td>0.87</td>
<td>4.09***</td>
<td>0.85</td>
<td>4.03***</td>
<td>0.86</td>
<td>4.44***</td>
</tr>
<tr>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Age</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Sector</td>
<td>0.52***</td>
<td>0.06</td>
<td>0.53***</td>
<td>0.06</td>
<td>0.54***</td>
<td>0.06</td>
<td>0.53***</td>
</tr>
<tr>
<td>Ownership</td>
<td>0.00**</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>National Level (Level 2)</strong></td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>IV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>+</td>
<td></td>
<td>0.02**</td>
<td>0.01</td>
<td>0.09***</td>
<td>0.02</td>
<td>0.09***</td>
</tr>
<tr>
<td>FDI-Rule of Law</td>
<td>+</td>
<td></td>
<td>0.10**</td>
<td>0.03</td>
<td>0.10**</td>
<td>0.03</td>
<td>0.10***</td>
</tr>
<tr>
<td>FDI-Political Stability</td>
<td>+</td>
<td></td>
<td>-0.24***</td>
<td>0.06</td>
<td>-0.23***</td>
<td>0.06</td>
<td>-0.25***</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rule of Law</td>
<td>-0.36**</td>
<td></td>
<td>0.13</td>
<td>-0.47**</td>
<td>0.13</td>
<td>-0.69***</td>
<td>0.17</td>
</tr>
<tr>
<td>Political Stability</td>
<td>0.36**</td>
<td></td>
<td>0.12</td>
<td>0.37**</td>
<td>0.13</td>
<td>1.11***</td>
<td>0.19</td>
</tr>
<tr>
<td>Human Development Index</td>
<td>0.22</td>
<td></td>
<td>0.46</td>
<td>0.55†</td>
<td>0.40</td>
<td>0.12</td>
<td>0.30</td>
</tr>
<tr>
<td><strong>Cross Level Interactions</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Absorptive Capacity-FDI</td>
<td>+</td>
<td></td>
<td>0.30*</td>
<td>0.13</td>
<td>-0.92†</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>Absorptive Capacity-Rule</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of Law</td>
<td>-1.31</td>
<td></td>
<td>2.07</td>
<td>2.99</td>
<td>3.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorptive Capacity-Rule</td>
<td>+</td>
<td></td>
<td>-1.37*</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of FDI</td>
<td>-2.04</td>
<td></td>
<td>2.38</td>
<td>13.47*</td>
<td>7.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorptive Capacity-</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Political Stability</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Absorptive Capacity-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Stability-FDI</td>
<td>+</td>
<td></td>
<td>3.79*</td>
<td>1.75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** = p<.001  
**  = p<.01  
*   = p<.05  
† = p<.10

Hypothesis 1 suggested that FDI has a positive relationship with firm level innovation.

Model 2 tests of this hypothesis. The data support hypothesis 1 and the idea that there is a positive relationship between FDI and firm innovation (β = 0.02, p < .01). This shows that higher levels of FDI lead to higher levels of firm innovation.
Hypothesis 2 predicts that rule of law moderates the FDI-firm innovation relationship such that when rule of law is higher the relationship is stronger. Hypothesis 3 predicts that political stability moderates the FDI-firm innovation relationship such that when political stability is higher the relationship is stronger. The results from Model 3 support hypothesis 2, as it is positive ($\beta = 0.10$, $p < .01$) but do not support hypothesis 3 ($\beta = -0.24$, $p < .001$).

For the two way cross-level interaction hypothesis 4 looks at how the level of absorptive capacity moderates the relationship between FDI and firm innovation. Model 4 shows support for the test of this hypothesis ($\beta = 0.30$, $p < .05$). The three-way cross-level interactions of hypotheses 5 and 6 where we expect absorptive capacity to moderate the relationship between both political stability and rule of law on the FDI and innovation respectively are tested in Model 5. The results of Model 5 show support for hypothesis 6 in that the term is positive ($\beta = 3.79$, $p < .05$) but does not support the contention of hypotheses 5 in that the term is negative ($\beta = -1.37$, $p < .05$). As such, we find support for our proposition that absorptive capacity further enhances joint affects of FDI and political stability on innovation. However, we did not find support for our contention that absorptive capacity positively influences the joint affects of FDI and rule of law on innovation as proposed in hypothesis 6.

**DISCUSSION**

How does FDI motivate firm-level innovation in the presence of absorptive capacity and given national environment? We examine this question in response to numerous calls by scholars for “bringing the firm back” (e.g., Meyer and Sinani, 2010, p. 1090) in the spillover research particularly in the context of FDI (Blomstrom & Kokko, 2003; Liu et al, 2010; Meyer, 2004, 2008; Spencer, 2008; Tian, 2007). This is one of the first studies to develop an integrated framework using the insights of knowledge-based view, absorptive capacity and international
spillover to examine the relationship between FDI and spillovers, national context, absorptive capacity, and innovation.

This study sought to examine the role of FDI in driving innovation in the emerging economies through knowledge-spillovers. We first argue that FDI provides modern technology for product and process innovation along with capital, technology and managerial skills. Further, acquisition of knowledge through spillovers motivates domestic firms to pursue product and process innovations with a quest for penetrating global markets with their own innovations. We also argued that the flow of knowledge or technology from spillovers is facilitated by the nature of institutional quality that the spillover is a part of because institutional quality affects property rights, trade, and productivity. As such, we proposed that the rule of law as well as political stability enhance the relationship between FDI and firm innovation.

Next, we propose that absorptive capacity of the domestic firms enables them to scan and monitor the availability of knowledge-spillovers in the environment through FDI. Alert firms will be better able to recognize, utilize and realize the value from spillovers for innovations. As such, absorptive capacity positively affects the relationship between FDI and firm innovation.

Further, we considered a more complex model by exploring how the combination of absorptive capacity and national context affects the relationship between FDI and firm-level innovation.

Consistent with our overarching theme our results confirm that national-level factors enhance the relationship between FDI and firm innovation. First, we find that FDI is positively associated with the firm-level innovation. Next, our results suggest that from the national context, rule of law enhances the relationship between FDI and firm innovation; however, we did not find support for political stability enhancing the relationship between FDI and firm
innovation. We also find that absorptive capacity enhances the relationship between FDI and firm innovation. Our results also suggest that absorptive capacity further enhances the joint affects of FDI and political stability on innovation. However, we did not find support for our contention that absorptive capacity positively influences the joint affects of FDI and rule of law on innovation. Based on these results, we believe that absorptive capacity of domestic firms plays critical role in enabling them to leverage the knowledge spillover. This is consistent with the findings of Liu and Buck (2007) who underscore the importance of absorptive capacity for firms in emerging economies.

**CONTRIBUTIONS AND IMPLICATIONS**

We contribute to the literature and KBV by highlighting the fact that in the new global economy, domestic firms need to cultivate absorptive capacity to leverage knowledge spillover provided by FDI. As discussed in the extant literature (Liu et al, 2010; Meyer and Sinani, 2010; Spencer, 2008; Tian, 2007), FDI indeed provides valuable knowledge to the firms in emerging economies along with modern technology for product and process innovation supported by capital, technology and managerial skills. However, domestic firms and their managers need to be alert and they must have prior knowledge to scan and monitor such spillover for effectively utilizing those for commercial ends such producing innovations. In the national context, this study also underscores the value of developing institutions that can provide rule of law and political stability. Our results, though mixed, show that both these factors play an important role in leveraging knowledge-spillover for generating innovations. This study adds to the few studies on the role of spillover through FDI in promoting innovation in the context of emerging economies.
Though both the IB scholars and policymakers have suggested that rapid globalization has led to the “death of distance” (e.g., Agrawal et al., 2006) in relation to FDI and international trade, our results covering a total of 32 nations with a sample size of 11,937 firms suggest that ‘local’ absorptive capacity is critical in facilitating utilizing knowledge spillover effectively for developing innovations. Thus, ‘acting local’ is as important as thinking global. Our findings in this regard are consistent with Liu et al. (2010) who suggest that local firms “require a certain minimum level of domestic absorptive capacity through in-house R&D investment.” Overall, firms may benefit most by a combination of developing in-house absorptive capacity as well as acquiring knowledge through spillover via FDI.

For the policymakers, our findings suggest that just focusing on and inviting inward FDI as a mechanism for local technological development is not enough for cultivating innovation at local level. They must help domestic firms in developing absorptive capacity using means such in-house R&D so that they can be alert for recognizing knowledge-spillover and its quality. Further, they must provide enabling institutions with rule of law and political stability. As such, government policies and reforms must work at multiple levels for promoting innovations by local firms—provide institutional quality, R&D investment and invite FDI.

LIMITATIONS AND FUTURE RESEARCH

While we provide a unique view of the relationship between FDI and firm innovation, our paper is not without limitations. Due to the complex nature of our model we were only able to look at a limited number of relationships. However, the findings of our paper do provide groundwork for future research to further investigate the intricacies of FDI and firm innovation. We also are limited by The World Bank study in how we can evaluate innovation. When looking at knowledge bases it is important to understand the different types of innovations and how they
are related. Future work should try to understand the complexities of FDI and its moderators on different types of innovation.

In conclusion, we find interesting results in a cross level analysis of FDI and firm innovation. We hope that this provides a basis for future research in FDI and firm level characteristics and further encourages the use of multilevel modeling in the field of strategy. Through our analysis we provide useful insights into the role of FDI inside of firms as well as further explicate KBV to interactions between firms and their host nations.
REFERENCES


Afuah, A. 2009. *Strategic Innovation: New Game Strategies for Competitive Advantage.* Routledge, Ch. 1 (pp. 3-8)


CHAPTER THREE

PAPER TWO

M&A STRATEGIES OF FIRMS FROM EMERGING ECONOMIES IN DEVELOPED MARKETS AND THEIR PERFORMANCE

Abstract

A number of firms from emerging economies are cross-listed in the U.S. market. This research proposes that the level of diversification of these firms influences their inorganic growth (i.e., M&A) strategy in their target market (e.g., U.S. market in our context). Further, we examine how the industry environment in the target market influences the inorganic growth strategy of such firms. Drawing on the Resource, Knowledge-, and Capability-based views, we propose that a combination of diversification levels and industry environment in the target market influences the post-acquisition performance of emerging economies’ firms. This research demonstrates that a more complete picture of the post-acquisition performance of emerging economies’ firms emerges when firm characteristics are considered in combination with the environment in the target market.

INTRODUCTION

With the prevalence of economic liberalization during the last three decades, inorganic growth of enterprises from emerging economies (emerging-economies firms, henceforth) has been on the rise and is developing into a phenomenon with important consequences for the global economy (Ramamurti, 2009; Yang et al., 2009). On one hand, emerging-economies firms’ choice of becoming a global player is evidenced by their cross-listing in the stock market
of the developed economy of interest (e.g., U.S.); on the other hand, their use of modes of inorganic growth such as mergers and acquisitions (M&A) reflects their efforts toward assimilating new knowledge and learning. Overall, such emerging-economies firms have been proactively pursuing inorganic growth in the last decade for knowledge acquisition and learning with the goal of developing innovative competencies, growing in size and building reputation internationally for competing in the global marketplace (Gubby et al., 2010; Ramamurti, 2009).

Indeed, the above strategies have contributed to the transition of such select least developed countries of yester-decades (e.g., the BRIC group—Brazil, Russia, India, and China) into major emerging economies in this first decade of the 21st century (Mathews, 2006; Ramamurti, 2009). Firms such as Embraer, Haier, Huawei, Tata and Infosys could successfully develop their growth strategies using modes such as M&A in the global marketplace (Khanna & Palepu, 2010; Ramamurti, 2009). Their followers from emerging economies, though less visible at this stage, are also on the rise and may emerge key players in their own sectors by 2050 if the growth rate projected by Wilson and Purushothaman (2003) holds and conditions remain stable. Such firms are fast becoming notable players in the global M&A market as evident by the fact that M&A purchase of emerging economies stood at $120 billion in 2008, accounting for almost 18 per cent of global M&A purchase as against its share of just 4 per cent in 1998 (UNCATD, 2009).

A number of emerging-economies firms are cross-listed on the NYSE/AMEX/NASDAQ and are actively pursuing inorganic growth in the U.S.; however, literature has mostly paid attention to the MNEs from the developed triad of the U.S., Europe and Japan, their cross-listings and boundary expansion strategies in the emerging markets (Luo, 2003; Mathews, 2006; Peng et al., 2008; Yiu et al., 2007). In view of the increasing presence of such firms in the
developed markets (e.g., U.S.), it is somewhat surprising that literature is yet to focus its attention on emerging-economies firms’ inorganic growth strategies in the developed market of their interest (e.g., U.S. where a number of them are cross-listed).

In general, literature remains scant not only about the drivers of inorganic growth strategies by the emerging-economies firms that are cross-listed on the NYSE/AMEX/NASDAQ but also about the conditions that motivate growth strategies such as M&A in the U.S. market that could catapult them forward as global players in their industry (Ramamurti, 2009; Wright et al., 2005; Yiu et al., 2007). Peng and his colleagues (2008) state, “…we currently know very little about how firms from emerging economies internationalize….if the field aspires to remain globally relevant, it seems imperative that more research be devoted to these critical strategic issues.” In view of such calls by the scholars for addressing emerging-economies firms’ related issues (Peng et al., 2008; Ramamurti, 2009; Yiu et al., 2007; Wright et al., 2005), we believe that time is ripe for the nuanced exploration such firms’ inorganic growth strategies in the face of environmental conditions of the developed market of their interest (i.e., U.S. in our context).

Specifically, we begin with the premise that cross-listed emerging economies firms in the U.S. pursue M&A strategy for gaining knowledge, learning, and thus profit and posit that the level of diversification of these firms influences their inorganic growth strategy in their target market (e.g., U.S. market in our context). Further, we examine how the industry environment in the target market influences the inorganic growth strategy of such firms. We integrate the insights of Resource-based, Knowledge-based and Capability-based views and propose that a combination of diversification levels and industry environment in the target market influences the post-acquisition performance of emerging-economies’ firms.
THEORY AND HYPOTHESES

As stated earlier, it is somewhat surprising that literature is yet to focus its attention on emerging-economies firms’ M&A strategies in the developed market of their interest as evidenced by their cross-listing. We begin with an extensive review of the literature to search for theoretical gaps in this context and kept our primary search\(^2\) broad by searching for the drivers of geographic boundary expansion (i.e., broadly international market entry) for the emerging economies firms. Our extensive review of extant literature shows that virtually none of the extant studies has yet focused on the role of levels of diversification, competitive intensity, and munificence as the factors that motivate M&A or boundary expansion by such firms— the results of this search are presented in the literature review summary table.

\(^2\) Using ‘EBSCO’ database, we focused on articles published in the premier scholarly journals such as Organization Science, Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, Strategic Management Journal, and Journal of International Business. To cast our net wider in the context of international business, we also included papers published in other international business journals such as Journal of International Management and Management International Review. Further, we used a broad search strategy and searched for different variations of the keywords, for example, ‘Firms from emerging markets’ and ‘internationalization’, ‘EMNC’ and ‘Internationalization’, ‘EMNE’ and ‘Internationalization’, ‘Levels of diversification’ and internationalization’, and ‘Competitive intensity and internationalization’, ‘Munificence and internationalization’ among others.
<table>
<thead>
<tr>
<th>Reference</th>
<th>Theoretical Perspective Used</th>
<th>Research Question/ Description</th>
<th>Nature of study</th>
<th>Context</th>
<th>Effect of Diversification</th>
<th>Role of competitive intensity</th>
<th>Role of environment</th>
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<tbody>
<tr>
<td>Chittoor, Sarkar, Ray and Aulakh (2009, OS)</td>
<td>Resources and capabilities, Business Group,</td>
<td>Examines whether Indian pharmaceutical firms’ access to international technological and financial resources enables internationalization.</td>
<td>Quantitative</td>
<td>Indian pharmaceutical firms</td>
<td>None</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Lopez, Kundu and Ciravenga (JIBS, 2009)</td>
<td>Theory of internationalization—gradual process of capability build-up versus Born global</td>
<td>Examines whether born-global firms are prevalent in knowledge-based industries, and especially in small countries with open economies.</td>
<td>Quantitative</td>
<td>Software industry of Costa Rica</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Elango and Pattnaik (JIBS, 2007)</td>
<td>Uppsala model of internationalization, Network theory</td>
<td>How firms from India build capabilities to operate in international markets through learning from parental networks</td>
<td>Quantitative</td>
<td>Indian manufacturing industries</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Aybar and Ficici (JIBS, 2009)</td>
<td>M&amp;A announcement and Value Creation</td>
<td>Examine value implications of cross-border acquisitions’ announcements of EMNEs</td>
<td>Quantitative</td>
<td>13 countries, variety of industries</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Zhou, Barnes and Lu (JIBS, 2010)</td>
<td>Liabilities of newness and foreignness, learning advantages of</td>
<td>Examines how young international new ventures acquire learning advantages and avoid the</td>
<td>Quantitative</td>
<td>China</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Luo and Tung (JIBS, 2007)</td>
<td>Springboard perspective on internationalization of EMNEs</td>
<td>Discusses unique traits that characterize the international expansion of EMNEs, and the motivations</td>
<td>Theory Development</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
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<td>Zhou, Wu, Luo (JIBS, 2007)</td>
<td>Social Networks</td>
<td>Explains the purported relationship between internationalization and firm performance in the context of born-global small and medium enterprises</td>
<td>Quantitative</td>
<td>China</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Demirbag, McGuinness and Altay (MIR, 2010)</td>
<td>Dunning’s eclectic/ OLI perspective, TCE, risk management</td>
<td>Investigates executives’ perceptions of uncertainty in decisions of joint venture versus owned subsidiary</td>
<td>Quantitative</td>
<td>Turkey</td>
<td>None</td>
<td>None</td>
<td>Yes</td>
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<tr>
<td>Aulakh, Kotabe and Teegan (AMJ, 2000)</td>
<td>Cost leadership, differentiation, standardization models, and geographical diversification</td>
<td>Develops a framework for examining the export strategies EMNEs and their performance</td>
<td>Quantitative</td>
<td>Brazil, Chile, and Mexico</td>
<td>None</td>
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<td>None</td>
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<tr>
<td>Chittoor and Ray (JIM, 2008)</td>
<td>Institutional theory; Strategic group analysis</td>
<td>Diverse internationalization paths in response to institutional changes; exploration and exploitation of markets</td>
<td>Qualitative</td>
<td>Indian pharmaceutical firms</td>
<td>None</td>
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<td>Cuervo-Cazurra (JIM, 2008)</td>
<td>Incremental internationalization model; OLI Paradigm</td>
<td>Sequence of multinationalization of value-chain activities; role of home country</td>
<td>Qualitative</td>
<td>Latin American firms</td>
<td>None</td>
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<td>Lee and Slater (JIM, 2008)</td>
<td>RBV and dynamic capabilities</td>
<td>Development of firm level capabilities through outward FDI</td>
<td>Qualitative</td>
<td>South Korea (Samsung)</td>
<td>Yes</td>
<td>None</td>
<td>None</td>
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<tr>
<td>Sapienza, Autio, George and Zahra (AMR, 2006)</td>
<td>RBV and dynamic capabilities</td>
<td>Influence of internationalization on firm survival and growth</td>
<td>Theory Development</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
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<tr>
<td>Tsang (SMJ, 2006)</td>
<td>Knowledge management, Learning</td>
<td>Proposes a model of how firms acquire knowledge from their international joint venturing experience</td>
<td>Quantitative</td>
<td>73 Singapore and 89 Hong Kong firms</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Coeurderoy and Murray (JIBS, 2008)</td>
<td>Institutional theory</td>
<td>Examines the effect of institutional dimension on location choice and speed of internationalization</td>
<td>945 foreign market entries by UK firms; 451 foreign entries by German firms</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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</table>
Acquisitions as the Strategic Choice of Emerging Economy Firms

Emerging-economies’ firms face “difficulties in acquiring resources and capabilities locally owing to underdeveloped strategic factor markets for finance, technology, managerial capabilities, and other intangible assets at home…(they need to) look aggressively beyond their national borders (c.f., Gubby et al., 2011).” These firms must systematically plan for geographic diversification to acquire critical assets to compete more effectively against their global rivals in the global markets. Further, they must emerge as a global firm with mechanisms such as cross-listing so that they can leverage financial markets in the developed nation of interest (e.g., U.S.). In essence, emerging economies’ firms’ geographic expansion is motivated by their quest for acquiring resources and capabilities as well as learning through exploring distant ideas from across the world and thus performance (Chang, 1995; Gubby et al., 2011; Mathews, 2006). This strategy helps emerging-economies’ firms in their domestic market as well because they can counter the threats from MNCs from developed nations who generally own superior resources and capabilities with superior product and services. Further, emerging-economies’ firms become capable of venturing outside their geographic boundaries for matching and competing with the MNCs in the global markets (Gubby et al., 2011). This broadening of interactions has profound performance implications for emerging-economies’ firms.

Indeed, according to Pradhan (2010), emerging-economies’ firms’ foreign acquisitions are primarily driven by resource and knowledge acquisition objectives. For example, the motivation of accumulating new technological, marketing and skill capabilities has become a key feature of the current M&A wave from emerging economies like India, China, Korea and Taiwan (Dunning et al., 1996; UNCTAD, 2006; Wang & Boateng, 2007; Pradhan, 2008; Gammeltoft et al., 2010). Emerging-economies’ firms generally acquire firms in advanced industrialized
countries that are relatively more endowed with the knowledge assets looking for technological upgrade or catching up with the MNCs from developed nations. Luo and Tung (2007) elaborate on how emerging market multinationals, given their competitive weaknesses, are increasingly acquiring strategic assets from mature MNEs in developed countries to overcome their latecomer disadvantage in world markets. Forsans and Balasubramanyam (2010) suggest that access to technology and know-how is one of the main motives behind emerging firms’ foreign acquisition from India and China and argued that M&A is a more efficient and inexpensive source of technology than licensing agreements. Rasiah et al. (2010) contended that Indian, Chinese, and Brazilian firms are targeting U.S. more and more for accessing both intellectual properties and markets. Rui and Yip (2008) suggested that Chinese firms are using overseas acquisitions for acquiring foreign strategic capabilities to offset their competitive disadvantages. In sum, recent research highlights resource acquisition as the primary motive—both for strategic asset-seeking as well as access to markets and natural resources.

In view of the above, it is particularly appropriate to integrate the insights of Resource, Knowledge, and Capabilities-based views to examine emerging economies firms’ acquisition strategies because a primary motive for M&A by cross-listed firms in our context is knowledge acquisition and learning to match or surpass the best available knowledge and technology in the market (Grant, 1996; Eisenhardt and Martin, 2000). The knowledge-based view of the firm suggests that intellectual resources are the key organizational assets and an organization’s idiosyncratic know-how and its ability to replicate and exploit knowledge are fundamentally responsible for sustainable competitive advantage (Grant, 1996; Kogut and Zander, 1992).

The knowledge-based view of the firm extends the resource-based view positing knowledge as the key source of competitive advantage (Grant, 1996; Kogut and Zander, 1992).
Knowledge, learning and capabilities provide competitive advantage to the firms even in the face of new and difficult business environment (Steensma and Lyles, 2000). Steensma and Lyles (2000) assert that in proposing the above, the Knowledge-based perspective integrates several sub-streams of research including the resource-based view (e.g., Barney, 1991; Conner, 1991), organizational learning (Huber, 1991), and organizational competencies (Leonard-Barton, 1992; Prahalad and Hamel, 1990). However, similar to the VRIN nature of resources that deliver competitive advantage, the strategic potential of knowledge depends on whether the knowledge is simultaneously valuable, rare or highly tacit, difficult to imitate, and limited in prevalence among the competitors in order to deliver above-normal returns (Barney, 1991; Steensma and Lyles, 2000). Knowledge acquisition and learning considerations are particularly applicable to the acquisitions by the emerging economies’ firms.

The value of VRIN knowledge elements as well as learning can only be fully exploited if the firms can alter or develop resource recombinations to match or surpass the changes due to fast-changing environment. It is the Capabilities perspective that extends the RBV and KBV by focusing on how firms achieve the above by deploying resources, knowledge and learning to develop higher order routines that develop new resource recombinations and reconfigurations to match or surpass dynamic environment (Teece, Pisano, & Shuen, 1997; Eisenhardt and Martin, 2000, Zollo and Winter, 2002). Such efforts require acquiring, accumulating, as well as reconfiguring resources and knowledge elements for developing innovative products and services (Sirmon, Hitt, & Ireland, 2007).

Further, Gubby et al. (2010) suggest that the tacit nature of some types of proprietary and intangible know-how, resources, and capabilities makes it difficult to develop these in-house particularly by the emerging economies’ firms and purchasing them through market transactions.
via M&A may be a more efficient mode than other options. As such, for the emerging economies’ firms, M&A is a particularly appropriate mode to acquire, accumulate and absorb knowledge as well as reconfiguring resources and knowledge elements for developing innovative products and services. The resources and knowledge that an emerging economies firm accesses, has direct performance implications. Overall, this research explores the post-acquisition performance of the diversified emerging economies firms’ in the face of environmental pressures as they pursue acquisitions in the U.S.

**HYPOTHESES**

**Product Diversification, Knowledge, and Acquisition Performance**

Product diversification can be defined as the extent to which a firm operates in multiple and distinct product markets. Diversified firms are able to exploit synergies across different product divisions as they continue to gain tacit knowledge through managing business activities in diverse sectors. Exposure to different sectors develops their knowledge base, absorptive capacity and learning which in turn, helps them in leveraging resources for both scale and scope economies. Diversified firms from emerging economies, for example, Samsung, TATA, and Haeir have developed the capability to recombine knowledge elements for innovations exploiting their knowledge base and learning from diverse sectors. They also have a structure for transferring knowledge between divisions, leveraging intangible resources and capabilities such as leadership exchange and mobility among divisions and enhanced market power (Hitt et al., 1997; Wright et al., 2005). This allows firms like these to acquire international firms and then leverage their learning not only in the target’s market but also in their home country. Overall, we begin with the premise that emerging economies firms’ with higher levels of diversification would use their experience and knowledge in managing diverse sectors for acquiring and
utilizing vanguard technological and marketing resources. M&A in the developed target market helps them in leveraging both the scale and scope economies for matching their ambition of becoming a global player in the industry (Chang, 1995; Gubby et al., 2011; Mathews, 2006).

We believe that first, acquisitions in the U.S. market would give such emerging-economy firms’ access to key strategic resources that may not be available in their domestic market, and thereby enhance their capabilities to be competitive in the global market. Such acquisitions also provide status and reputation in global market which helps emerging economies firms to overcome the liabilities of foreignness in global markets. Such firms learn new and diverse organizational practices and are often able to integrate such practices with their traditional management techniques (Cuervo-Cazurra, Maloney, & Manrakhan, 2007; Uhlenbruck, Hitt, & Semadeni, 2006; Vermeulen & Barkema, 2001). As such, acquisition of U.S. firms with the desired technology serves as an effective alternative to in-house R&D efforts and internal development of innovations (Vanhaverbeke, Duysters, & Noorderhaven, 2002). Moreover, this strategy helps such firms in catching up with established MNEs and recognizing performance returns.

Second, emerging-economies firms with higher levels of diversification gain market channels and market-based relational assets through acquisitions. These include relationships with customers and distributors, and intellectual assets, such as knowledge about environment and new growth opportunities (Srivastava, Shervani, & Fahey, 1998). These help scale the reputation barrier and overcome the dual liabilities of “foreignness” and “newness” in the target U.S. market (Cuervo-Cazurra et al., 2007; Guillen, 2002; Vernon, 1979; Zaheer, 1995).

Third, emerging-economies firms’ that explore for capabilities and pursue acquisition of U.S. based firms, must shed organizational inertia and renew their routines, update their core
values, templates, and archetypes (Greenwood & Hinings, 1996). Acquisitions help break organizational rigidities, and thus can revitalize and foster long-term survival of the acquiring organizations (Vermeulen & Barkema, 2001). Exposure to a wide range of international best practices transforms their routines, repertoires, and outlook (Gubby et al., 2010).

Overall, emerging economies firms’ with higher levels of diversification would benefit from acquisitions in the U.S. market in numerous ways as described above. They will gain critical resources and capabilities, overcome liabilities of foreignness and newness in the developed economies’ market, achieve accelerated internationalization, and integrate their unique local competencies with capabilities and resources available in foreign markets. As such, their inorganic growth strategies will create value that would be captured by accounting measures over time.

**Diversified and Knowledge Rich Emerging Economies’ Firms, Munificence and Post-Acquisition Performance**

A munificent environment where sales growth is substantial generates a greater abundance of resources while reducing both the competition for resources and resource dependencies (Boyd, 1990; Dess and Beard, 1984). Munificence in an environment is also characterized by predictability as well as institutional support. Indeed, industry participants require excess resources in order to pursue strategies such as M&A (Hill and Hoskisson, 1987, Gompers and Lerner, 2001). Firms who are monitoring the environment can use these excess resources and analyze the market trends. As a result, diversified and knowledge rich emerging economies’ firms in resource-rich environments are more capable of leveraging their absorptive capacity for exploring new technologies, trajectories and competencies in the market for identifying suitable M&A targets.
Further, a surfeit of resources can be used for M&As that go beyond technological resource acquisitions for developing products and services—munificent environments provide opportunities for mergers and acquisitions for complementary resources and capabilities such as market channels and market-based relational assets. Moreover, excess resources and the resulting exploration capabilities often fuel greater implementation of long-planned strategies for capability building through acquiring innovative firms. As such, a munificent environment reduces the tendency for organization inertia (Hambrick and Finkelstein, 1987) and enhances the pursuit of bold initiatives such as M&A. Overall, diversified and knowledge-rich emerging economies’ firms are better able to leverage their prior knowledge and learning from diversification toward managing acquisitions effectively for superior performance. Inorganic growth process generally starts with exploration in related domains (e.g., sub-sectors or closely related sectors) because of greater awareness and knowledge regarding emerging technologies in related areas (Henderson and Cockburn, 1996).

In contrast, in less munificent environments where sales growth is limited, there is less focus on future growth and M&A because shrinking resources threaten the survival of firms within industry (Castrogiovanni, 1991). Firms in such environment focus on maintaining stable operations, legitimacy, and reducing costs while trying to understand and manage threats to their survival (Hannan and Freeman, 1989; Khandwalla, 1973).

H1: For the emerging-economies firms, environmental munificence in the developed-economy of their cross-listing (i.e., U.S. in our context) influences the relationship between their levels of diversification and post-acquisition performance such that when the levels of munificence are high, the relationship between diversification and post-acquisition performance becomes stronger.
Diversified emerging economies’ firms, competition and post-acquisition performance

Competition in the industry provides pressures of inherent instability and change (D'Aveni, 1994). Competitors erode potential revenues and affect market share. Further, competitors create frequent discontinuities in the stable industry structures, corporate forms, and business-specific resources (D'Aveni, 1994; McNamara, Vaaler, and Devers, 2003). Competitive intensity refers to the degree of competition a firm faces in the markets it acts in (Grewal and Tansuhaj, 2001; Jaworski and Kohli, 1993). In highly competitive environments, even the diversified and knowledge-rich firms face the heat of competition. They must achieve a close fit with environmental demands and must do so quickly in order to survive—they must focus on leverage their prior experience, knowledge, and learning with urgency rather than taking additional risks by pursuing inorganic growth in the market. Further, competitive intensity breeds mimicry of strategies from the firms in the industry and related sectors (DiMaggio & Powell, 1983; Schilling and Steensma, 2001). As such, in our context, as soon as one or a few organizations pursue growth strategies such as M&A in the face of competition, other firms would follow suit, which, in turn, would make the market for M&A even more competitive. As such, diversified and knowledge-rich emerging economies’ firms would rather focus on nurturing their prior routines, knowledge base and existing competencies for beating imminent competition rather than burdening themselves with additional complexities and uncertainties inherent with the M&A.

Overall, in the face of high levels of competition, diversified and knowledge-rich emerging economies’ firms would focus on meeting the imminent market demands faster than the competition. As such, managers would rather focus on exploiting internal factor markets within firm boundaries as competitive pressures give managers little time and opportunity for
inorganic growth using M&A. Additionally, competitive intensity would distract them from the inherent risks associated with dealing in the M&A market such as the risks associated with valuation of target firm, competitive pricing, due diligence, risk of technology spillover from the target, espionage and information leakage.

In essence, such diversified and knowledge-rich firms would focus on leveraging internal factor markets so that they can respond to the competitive pressures by maintaining greater control and coordination, and appropriating VRIN resources and capabilities rather than focusing on the possible returns from an inorganic growth via M&A in the international market (D'Aveni, 1994). Overall,

H2: For the emerging-economies firms, competitive intensity in the developed-economy of their cross-listing (i.e., U.S. in our context) influences the relationship between their levels of diversification and post-acquisition performance such that when the levels of competition are high, the relationship between diversification and post-acquisition performance becomes weaker.

**Diversification Experience, Munificence, Competition and Post-Acquisition Performance**

In the presence of prior knowledge, learning, resources and capabilities from diversification, conditions will be particularly ripe for post-acquisition performance when the levels of munificence are high and competition is low. When the emerging-economies firms’ have high levels of prior knowledge, learning, resources and capabilities drawing on diversification, they will have the knowledge and competencies to execute M&A in the country of their cross-listing. They could leverage the M&A for developing recombinations, innovations and access to market. They will be more capable of developing innovative product offerings for the U.S. and global market because VRIN product offerings are based on superior knowledge that such firms now possess through acquired firm. They will also have legitimacy and a market position in the target market. Further, low levels of competitive intensity provide them
opportunity for exploration in the market without facing competitive pressures. Diversified and knowledge-rich emerging economies’ firms could move beyond the constraints of their industry context and push past organizational rigidities as they are not under pressure to meet imminent market demands faster than the competition. Managers would have time and opportunity for pursuing inorganic growth using M&A as the risks associated with competitors’ edging them out with better pricing, espionage, information leakage, and technology spillover will be minimal. Moreover, environmental munificence facilitates the above by providing excess resources that can be used for identifying emerging technologies and market trends. Diversified and knowledge rich emerging economies’ firms in resource-rich environments would be better positioned for leveraging their absorptive capacity for exploring new technologies, trajectories and competencies in the market leveraging knowledge from M&A for developing products and services. In munificent environment, such firms can also gain complementary resources such as market channels for global reach. Overall, a combination of munificent environment and low competition would allow emerging-economies’ firms to pursue M&A for maximum inorganic growth and leverage acquisitions for superior performance through providing resources for leveraging prior knowledge and learning when resources are abundant in the environment and competitive pressures are minimal.

In spite of the presence of prior knowledge and learning due to emerging-economy firms’ diversification experience, conditions will be especially detrimental for M&A when levels of munificence are low and competitive intensity is high. In the absence of munificence, managers will be highly constrained due to the lack of resources and prospects for future growth. They will focus less on future growth and M&A because shrinking resources threaten the survival of firms within industry (Castrogiovanni, 1991). Firms in such environment focus on maintaining stable
operations, legitimacy, and reducing costs while trying to understand and manage threats to their survival (Hannan and Freeman, 1989; Khandwalla, 1973). They would hardly reap any benefits of prior diversification experience and knowledge that generally provides competitive and comparative advantage to foreign firms in the global markets (Hitt, Hoskisson & Kim, 1997). The stakeholders would not give any leeway in the execution of potentially risky expansion strategy such as M&A and it is plausible that they may resist such moves. Further, when levels of competitive intensity are high, the managers of even the diversified and knowledge-rich firms must pay attention to their competition and focus on beating competition for survival rather than taking additional risks associated with dealing in the market and M&A. They would focus on meeting the imminent market demands faster than the competition by focusing on exploiting internal factor markets as competitive pressures give managers little time and opportunity for inorganic growth using M&A. Further, in the absence of munificence and when competition is high, firms’ inward focus could lead to organizational inertia with regard to inorganic growth and that would preclude leveraging any gains from M&A. Overall, emerging-economy firms’ would limit themselves to continue with routine and typical operations and continue to develop typical products to generate rent rather than pursuing M&A and potential returns from it (Zahra, 1996).

There are two consistent environments. First, when the levels of competitive intensity are high and munificence is high, and second, when the levels of munificence are low and competitive intensity is low. Under the first consistent condition, when the levels of competitive intensity as well as munificence are high, firms will face pressures to execute strategies that maintain their level of competition with the firms in the industry. Under such conditions, managers would focus on internal resources and capabilities for beating the competition and
reaping rents rather than taking risks associated with seeking performance in the external market growth form of M&A. However, environmental munificence may motivate them for M&A and consequent returns. However, managers are known to be relatively risk-averse and they may not pursue M&A returns because of the risks associated with venturing in the market. They may continue to pursue typical routines and strategies that generate expected returns to counter any threats from the competitors (D’Daveni, 1994).

Similarly, in the second consistent condition when the levels of competitive intensity are high along with high levels of munificence, of emerging economies firms will be under pressure to deal with the competition in their market despite diversification experience. Despite the availability of resources and diversification experience, resource availability will only work to help them focus on this competition as the focus of managers would be on beating the competition for survival rather than taking additional risks in M&A. Resources will be focused on meeting the imminent market demands faster than the competition by exploiting internal factor markets as competitive pressures give managers little time and opportunity for inorganic growth using M&A. As such, competitive intensity limits the scope of inorganic growth using M&A despite the availability of resources and often firms’ resources, capabilities and experience of emerging economies firms’ remain underutilized despite munificence. Managers will pursue routine domestic growth with relatively typical product offerings rather than focusing on acquisition performance.

Summarizing the above, in the presence of prior knowledge and learning due to emerging-economy firms’ diversification experience, the “ideal” conditions for motivating M&A performance develop when the levels of competitive intensity are low and environmental munificence is high. In the consistent environments, that is, in the presence of high competitive
intensity and high levels of munificence and low competitive intensity and low of munificence, conditions are moderately favorable for acquisition performance. However, conditions are particularly detrimental for acquisition performance when the levels of munificence are low and competitive intensity is high. In essence,

H3: For the emerging-economies firms, the relationship between diversification and post-acquisition performance will be the strongest in the developed-economy of their cross-listing (i.e., U.S. in our context) when the levels of munificence are high and competitive intensity is low.

H4: For the emerging-economies firms, the relationship between diversification and post-acquisition performance will be the weakest in the developed-economy of their cross-listing (i.e., U.S. in our context) when the levels of munificence are low and competitive intensity is high.

METHODS

Sample

In order to test our hypotheses we look to the SDC Platinum Mergers and Acquisitions database. Our sample consists of 68 firms where ROA, ROS, and ROE were harvested based on the acquirer being from a nation on the International Monetary Fund’s World Economic Outlook Report of developing/emerging economies (see Appendix A for nations in our sample) and the target firm being within the United States. We use the announcement date in collecting our sample and included acquisitions from 1990-2009. Acquiring firms that fall into these bounds are then taken and matched with CRSP/Compustat. Based on this data we control for both the year of the acquisition and the nation of the acquiring firm through dummy coding along with dynamism in the industry of the acquiring firm (Dess and Beard, 1984; Keats and Hitt, 1988). Dynamism is calculated by calculating the standard error of the beta for a regression of year on industry sales for the 5 years leading up to the acquisition date.
Our main independent variable of diversification is calculated by counting the number of different 2 digit SIC codes the acquiring firm operates in during the year of the acquisition (Lubatkin et al., 1993). In terms of the industry, we calculate industry competition by taking the inverse ratio of the top four firm’s sales to the total sales in the industry (Sahaym et al., 2007). Second, to calculate industry munificence we use the regression coefficient from the calculation used for dynamism (Dess and Beard, 1984; Keats and Hitt, 1988).

Following previous literature on geographic diversification (Hitt et al., 1997), we use return on assets (ROA) at the corporate level as our performance measure. We also go a step further by included measures of return on equity (ROE) and return on sales (ROS). We calculate these measures from the Compustat data for the year after the acquisition as our measure of post-acquisition performance. Table 2 shows the descriptive statistics and correlations between our data and in Table 3, we present the results of our regressions of post-acquisition performance on our variables of interest. Table 3 includes the results of nine different models including a model for the main effects, two-way interactions, and three-way interactions for each of the dependent variables. Each of these models contains the controls previously mentioned in our data.
Table 2

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<th>Variables</th>
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*** = p<.001
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† = p<.10, †† = p<.05, ††† = p<.01, ** = p<.001
RESULTS

Hypothesis 1 and 2 predict that institutional level factors play a role in the relationship between diversification and post-acquisition performance. Model 2 finds strong results for both hypothesis 1 and 2. Hypothesis 1 contends that higher levels of munificence create a stronger positive relationship between diversification and post-acquisition performance than low munificence does. This is strongly supported across all three of our models, ROA, ROS, and ROE (β = 9.22, 4.70, and 4.33, all p < .001). The support for hypothesis 1 can also be seen in the graphs of Figure 1.

**Figure 1**

**ROA**

![ROA Graph](image1)

**ROS**

![ROS Graph](image2)
Hypothesis 2, that higher levels of competition result in lower performance returns in the diversification-post-acquisition performance relationship than lower levels of competition. This is supported by the coefficient for the diversification-competition interaction in the ROA, ROS, and ROE models ($\beta = -0.38, -0.40, \text{ and } -0.10, p < .001, .001, \text{ and } .01$ respectively). This relationship is also supported by the graphs of the hypothesis 2 relationships in Figure 2.
Model 3 tests the contentions of hypothesis 3 and 4, that there is a three-way interaction between diversification, competition, and munificence and their relationship with post-acquisition performance. Hypothesis 3 and 4 contended that there will be a strong positive relationship between diversification and post-acquisition performance when competition is low and munificence is high and a more negative relationship when competition is high and munificence is low, respectively. This contention is supported by all three of Model 3’s ($\beta = -7.22, -7.11, \text{ and } -4.43, p < .05, .01, \text{ and } .05$ respectively), however further slopes test reveal only support for hypothesis 3 and no support for hypothesis 4. Tests of the slopes were done and show that for all three outcome variables the slope of the (3) line is significantly different than each of
the other lines at p<.05 but that the other three lines do not have different slopes. To ease in the interpretation of these complex relationships, we have included graphs of these relationships in Figure 3.

![Figure 3](image-url)

**Figure 3**

**ROA**

![ROA Graph]

**ROS**

![ROS Graph]
DISCUSSION AND CONCLUSIONS

Emerging economies firms’ diversification experiences are vital for their growth, expansion and competitive advantage in the global marketplace. In this study, we systematically identified and examined the joint effects of emerging economies firms’ diversification experience, competitive intensity and environmental munificence in motivating the inorganic growth strategy of such firms. We introduce the notion that a combination of diversification levels and industry environment in the target market influences the post-acquisition performance of emerging economies’ firms.

We integrate the insights of Resource, Knowledge-, and Capability- based views and test our hypotheses in the context of emerging economies firms’ that are cross-listed in the U.S. We believe that our approach is generalizable for such firms that are cross-listed in other stock markets (e.g., London) and pursue M&A in the country of their cross-listing.

Our results demonstrate that the relationship between emerging economies firms’ diversification experiences and their acquisition performance is enhanced when levels of
munificence are high. Such firms are better able to use their prior knowledge, learning, resources and capabilities to leverage M&A for developing innovative product recombinations for the developed economies such as U.S. and global markets. Our results also show that the relationship between emerging economies firms’ diversification experiences and their acquisition performance is inhibited in competitive environments. When competition is high, competitive pressures distract managers from the issues at hand in the acquisition. When competition is lower this relationship is not as significant.

We considered a more complex model by exploring how the combination of industry environment (i.e., munificence) and context (i.e., competition) alters the influence of emerging economies firms’ diversification experience on acquisition performance in the U.S. Our results show that for these firms, the conditions are particularly ripe for superior acquisition performance when levels of munificence are high and competition is low. Under this scenario, emerging economies firms with diversification experience get the benefits of environmental munificence on one hand, and on the other hand, they are free from competitive pressures that could inhibit their M&A strategy. As such, they remain motivated for pursing M&A and leveraging the acquired resources and capabilities for developing innovations for superior returns. In essence, emerging economies firms’ diversification experience has the strongest positive relationship with acquisition performance when munificence is high but competition is low whereas conditions are particularly detrimental for acquisition performance when munificence is low but competition is high.

Overall, with this research, we respond to the calls by a number of scholars to examine the issues associated with emerging-economies firms as they venture into developed and global markets (Peng et al., 2008; Ramamurti, 2009; Yiu et al., 2007; Wright et al., 2005).
IMPLICATIONS

Theoretical Implications

In the context of international business and global strategy, our findings have a number of theoretical implications. We believe that this is one of the first studies to examine the role of emerging economies’ firms’ diversification experience in acquisition performance in the developed country of their interest (e.g., U.S.). We provide a foundation for future research with our empirical finding that such firms’ acquisition performance is influenced by a combination of firms’ prior experience, industry environment and industry context.

We also contribute to the literature at the intersection of global strategy, international finance and emerging markets literature with our results that emerging economies firms with diversification experience get most superior acquisition performance when the levels of munificence are high and competition is low. On the other hand, low munificence and high competition makes the conditions particularly detrimental for acquisition performance. In addition, our empirical findings enrich theory integrating the insights of Resources and Knowledge-based view, Capabilities perspective and Governance modes literature. We found that environmental opportunities in combination of contextual pressures provide most conducive conditions for acquisition performance for emerging economies’ firms. These results complement conceptual insights of scholars such as Burgelman and Grove (2004) who propose that, “…company’s strategy resides in its strategic actions… (p. 13)….strategic action interacts with the environment (p.30)…”

Our findings also have implications for related streams such as international entrepreneurship that examine phenomenon such as role of emerging-economies’ small and medium-sized firms entry in the international markets. Further, literature in international
corporate venturing may also benefit from our findings on favorable conditions for boundary expansion. Scholars in these streams can fruitfully use our findings for potentially motivating international corporate venturing, cross-listing, targeting appropriate markets in the developed countries with developed stock markets.

Managerial Relevance

In addition to the above theoretical implications, our findings have a number of important implications for managers. First, superior value will be generated through M&A for both the primary and secondary stakeholders when managers from emerging economies firms have adequate diversification experience and they can apply their knowledge and learning in the developed market context.

Second, managers of emerging economies firms that have diversification experience may want to match their strategies with the target market environment and context before pursuing M&A and seeking subsequent returns. Managers must take strategic actions to match the environment—in our context, the actions of such managers will be matching the pressures and opportunities for acquisition performance.

Third, from a public policy perspective, such managers can proactively contribute to both their nation’s GDP and GNP by pursuing M&A in the developed nations. On one hand, successful M&A and geographic diversification benefit emerging-economies’ firms by providing them opportunities for developing new markets worldwide. On the other hand, M&A in the international markets provides new revenue streams as well as worldwide legitimacy to the domestic brands. As such, from a policy perspective, emerging economies firms’ effective acquisition strategies in developed countries of interest will have implications for the growth of global economy, businesses and the human capital.
LIMITATIONS AND FUTURE RESEARCH

Our research framework regarding industry contextual and environmental factors is by no means exhaustive. A systemic longitudinal analysis at the firm level could bring new insights into the role of such firms’ managers in pursuing M&A under firm-specific contingencies. Future research could explore how firm-level differences in individual TMT members’ attributes (e.g., education, hierarchical position, background etc.) influence the choice of target firm for M&A and subsequent performance implications. Organizational and international business researchers may also examine the role of managerial discretion, uncertainty and environment in international joint venture and alliance decisions, particularly those involving small and medium enterprises from emerging economies.

Scholars interested in macro-economic and cross-cultural approaches might attempt to distinguish between M&A and choice of developed country of interest, analyzing why some firms choose a particular country’s stock exchange for listing (e.g., U.S. versus U.K.) and how country variables such as risk preferences and power distances, among others, influence M&A decisions.
REFERENCES


McNamara, G., Vaaler, P.M., & Devers, C. 2003. Same as it ever was: The search for evidence of increasing hypercompetition. Strategic Management Journal, 24: 261-278.


CHAPTER FOUR

PAPER THREE

INTERNATIONAL ACQUISITIONS: THE ROLE OF KNOWLEDGE BREADTH, UNCERTAINTY, AND CULTURE

Abstract
The value of global acquisitions has been on the rise. We investigate the role of knowledge breadth in post-acquisition performance. Building on the knowledge-based view we test the hypothesis that the focal firm’s knowledge breadth has an inverse-U shaped relationship with post-acquisition performance. We also test how the firm’s industry uncertainty and the nation’s cultural distance influence this relationship. We do these tests on both market measures and internal growth measures of performance. Using 1,209 acquisitions with targets from 40 different nations we find differing results between the external and internal market growth measures. We find that knowledge breadth has an inverse-U shaped relationship with post-acquisition performance as measured by internal growth. We also find a positive relationship between uncertainty and post-acquisition performance as measured by growth. Both uncertainty and cultural distance influence the relationship between knowledge breadth and post-acquisition performance.

INTRODUCTION

There is an ongoing debate in the literature on the effects of geographical diversification on firm value (Aybar and Ficici, 2009). Conflicting views and divergent empirical results reflect a double-edged nature of this phenomenon. Geographic diversification via international
acquisitions affects both internal market and external market as it involves a complex interplay of firm-, industry-, and country-specific factors. On one hand, geographic diversification provides benefits associated with exploration (Lu and Beamish, 2004). Some of the benefits associated with exploration include an opportunity to leverage existing resources in the presence of imperfections in the international target markets and earning Schumpeterian rents. On the other hand, geographic diversification helps firms exploit their existing resources in international markets via economies of scale and scope (Caves, 1996).

However, literature is yet to come to a consensus on whether acquisitions create value business or market value (Zaheer et al., 2008), particularly regarding acquisitions that facilitate geographic diversification. Liabilities of newness and foreignness dampen business value and market returns (Hymer, 1976; Stinchcombe, 1965). Geographic diversification can result in coordination difficulties, information asymmetry, incentive misalignment and governance issues between headquarters and international managers. These challenges enhance costs of operation and value creation becomes difficult.

Indeed, empirical evidence shows that acquisitions are generally unremunerative for the shareholders of the acquiring firm (Sirower, 1997), averaging zero or even slightly negative returns, despite the existence of supposed synergies (Andrade et al., 2001; Bradley et al., 1988; Jensen and Ruback, 1983; Zaheer et al., 2008). Zaheer and colleagues (2008) further state that “whether and how acquisitions create economic value are key questions in strategy research...most studies agree that acquirers on average break even at best...[and] behind the mean of zero there exists a sizable variance...there plentiful instances where shareholders of the successful acquirers earn large positive returns...while other acquisitions generate significant
losses...an area of considerable interest...is concerned with the conditions under which acquirers earn superior returns.”

In the current paper, we first discuss whether geographic diversification creates value for the acquirer considering post-acquisition performance; and then advance extant research by elucidating the conditions under which international diversification creates or destroys value. We discuss value creation or destruction by comparing and contrasting value in terms of accounting-based growth measures vis-à-vis Tobin’s q, a financial market-based measure of firm performance (Montgomery and Wernerfelt, 1988). We develop a multi-level theoretical model of cross-border acquisition emphasizing the role of cultural distance and environmental dynamism to highlight conditions when diversification enhances internal growth as compared to market based financial performance. We draw on traditional IB theories to discuss how international diversification can have positive as well as negative effects on firm value under certain conditions. Our sample includes 1,209 cross-border acquisitions made by U.S. firms with 40 countries represented between 2001-2005 (Appendix A contains the list of nations in our sample). We develop a multi-level theoretical model as our model considers predictors across firm- and national-levels; and use hierarchical linear modeling (HLM) to investigate the effect of variables at different levels while maintaining the correct level of analysis for firm performance (Bryk and Raudenbush, 1992). We first examined influence of firm level predictors on performance and then applied cross-level interaction to test for a national level effect along the firm-level slope (Heck and Thomas, 2009).
THEORY

Post-Acquisition Performance

Research into international acquisitions has been sparse in comparison to the research that has gone into entry mode choice, domestic alliances, and international joint ventures (Reuer et al., 2004). While this is the case there have been numerous studies looking into the antecedents of post-acquisition performance in general (see King et al., 2004). These studies have looked at a wide range of factors that might relate to post-acquisition performance (Agrawal et al., 1992; Datta, 1991; King et al., 2004; King et al., 2008; Seth, 1990). For example, past research on acquisitions has looked at learning (Zollo and Singh, 2004; Bresman et al., 1999; Sarala and Vaara, 2010), past experience (Meschi and Metais, 2006; Nadolska and Berkema, 2007; Haleblian et al., 2006), resources and fit (Kusewitt, 1985; Uhlenbruck et al., 2006; King et al., 2008; Datta, 1991, Finkelstein and Haleblain, 2002), and cultural issues (Morosini et al., 1998; Reus and Lamont, 2009; Chakrabarti et al., 2009).

It is also interesting to note that studies in the acquisition stream have looked at different measures of performance but focus mainly on market-based measures of performance (see King et al. 2004 for examples). The number of studies that have looked at both market and accounting based measures of performance are few and far between (e.g. King et al., 2004; Kusewitt, 1985). Calls have been made in the literature to look for not only more moderators of key relationships with post-acquisition performance but also for multiple measures of firm performance (King et al., 2004). It is possible that different antecedents to performance may have different effects depending on the measure of post-acquisition performance used.
International Acquisitions

When looking more specifically at international acquisitions a large amount of research has focused on entry mode choices and culture along with the issue brought up in basic acquisitions but is still limited. Research in these areas is also mixed with scholars finding positive effects from cultural distance (Morosini et al., 1998; Chakrabarti, 2009) and negative effects (Reus and Lamont, 2009). As a result of these mixed results throughout acquisition research we seek to investigate firm and industry level antecedents to post-acquisition performance along with national level moderation. We also work to investigate internal and external measure of post-acquisition performance.

Knowledge-Based View

Intangible assets and more specifically knowledge have continued to increase in focus in the literature (Curado and Bontis, 2006). This view of knowledge as a resource provides the conceptual link between the resource-based view (RBV) and the more specific the knowledge-based view (KBV) (Ariely, 2003). While RBV plays the central role in resource advantages for the firm, KBV provides and extension of this as it looks at knowledge as a strategic and central asset to the firm (De Carolis, 2002). The ability of the firm to utilize and combine knowledge stocks that the firm has allows them the opportunity to recognize advantages. Knowledge provides firms with a resource that is difficult to imitate and also the possibility of differentiated advantage (Wiklund and Shepherd, 2003). In this way KBV provides us with the context needed to understand the drivers of firm performance for geographically diversifying U.S. based firms.

Foss and Pederson (2004) suggests that this process not only takes into account the application of knowledge to different facets of the firm but also that firms have to be able to transfer this knowledge to other contexts. The ability of firms to spread knowledge within the
broad context of the organization is key to them being able to recognize performance gains.

From this we can see that KBV is central to understanding the concept of knowledge management within the firm (Kogut and Zander, 1992; Grant, 1996, Spender 1996). Kogut and Zander (1992) highlight the importance of the ability of the organization to not only create knowledge but also to transfer and utilize knowledge for advantages. Further unique stocks of knowledge in different units of the firm have the ability to allow the firm to integrate and recombine knowledge stores in order to leverage this advantage for the firm (Ghoshal, 1987; Grant, 1996; Sarala and Vaara, 2010; Nonaka, 1994).

Past research has also looked at the role of acquisitions in knowledge transfers. Vermeulen and Barkema (2001) suggest that acquisitions can be used to bring in a broader set of knowledge than that which the firm already has. Hitt, Hoskisson, and Ireland (1990) also suggest that the ability to gain knowledge through acquisitions can allow the firm to bolster innovation without the risks involved in taking on the R&D themselves. Research has shown the importance of knowledge transfers in abnormal returns (Capron, 1999; Capron and Pistre, 2002) and for value creation based on acquisitions (Ranft and Lord, 2002). The literature has shown a central theme in the importance the firm knowledge plays in terms of post-acquisition performance. We seek to further expand on this in the following sections.

**HYPOTHESES**

**Knowledge Breadth**

In light of the above discussion on KBV and the link it has to post-acquisition performance, it is clear that the breadth of knowledge a geographically diversifying firm has will impact its post-acquisition performance. Research has been conflicted on the way knowledge breadth can influence performance. A firm must have enough knowledge to be able to leverage
its stores for unique recombinations but when the firm has a large amount of knowledge it becomes hard for managers to monitor the large breadth involved. The breadth of knowledge that the firm has allows the firm to explore and leverage new works (Ansoff, 1965; Peng and Delios, 2006). A firm that has knowledge breadth means that it has the opportunity to leverage the unique knowledge stores associated with its different areas of operations. Stocks of knowledge in different units of the firm have the ability to allow the firm to integrate and recombine knowledge stores in order to leverage this advantage for the firm (Ghoshal, 1987; Grant, 1996; Sarala and Vaara, 2010; Nonaka, 1994). These recombinations allow a firm to create new solutions to problems or to view problems in different ways. Further, the integration of knowledge across product lines can lead to economies of scale and scope for the firm, which can increase the returns for the firm (Peteraf, 1993; Teece, 1982). The ability of firms to utilize knowledge across product operations allows them to derive an economy of scope (Markides and Williamson, 1994; Seth 1990). Based on this the product breadth of the firm would have a positive relationship with post-acquisition performance.

The other side of knowledge breadth deals with the firm’s ability to monitor all aspects of the operations involved. This inverse-U shaped relationship has been discussed in the literature in relation to product operations and breadth (Palich et al., 2000). Hill and Hoskisson (1987) point out that the greater breadth in product operations the greater the ability managers must have in order to deal with the information and problems that arise. There is also the issue of the cost associated with trying to deal with this information processing necessity. The pressure increases on top management as they try to manage a wider portfolio of businesses (Grant, Jammime, and Thomas, 1988). As such, diversification in product knowledge increases the marginal cost increases lending to the idea that there is an optimal level of knowledge breadth for
the firm (Palich et al. 2000). The difficulty of these transfers fits with the above theory on KBV, in that knowledge can be considered as sticky and tacit (Tanriverdi and Venkatraman, 2004). This stickiness makes the broader knowledge offering more difficult to handle and integrate as the firm geographically diversifies. In light of the above theory we expect there to be an inverse-U shaped relationship between knowledge breadth and post-acquisition firm performance.

Hypothesis 1a: The knowledge breadth of geographically diversifying US based firms has an inverse-U relationship with post acquisition performance as measured by Tobin’s Q.

Hypothesis 1b: The knowledge breadth of geographically diversifying US based firms has an inverse-U relationship with post acquisition performance as measured by sales growth.

Hypothesis 1c: The knowledge breadth of geographically diversifying US based firms has an inverse-U relationship with post acquisition performance as measured by asset growth.

Industry Uncertainty

Industry level measures have also been of interest in the area of firm growth and performance. One such measure that has received attention at the industry level is uncertainty. Uncertainty has been looked at in the literature under titles including dynamism, volatility, and especially with the lead in of environmental (Boyd, 1990; Danneels and Sethi, 2011; Lu et al. 2010; Datta et al., 2005). For this paper we will call all of these uncertainty as we are dealing with uncertainty that the focal firm faces in its own market. Past research in relation to uncertainty has looked at innovation (Danneels and Sethi, 2011; Weerawardena et al., 2006), subsidiaries (Fisch, 2008), performance (Desarbo et al., 2005; Swamidass and Newell, 1987; Wernerfelt and Karnani, 1987, Box et al., 1993), and decision making (Goll and Rasheed, 1997; Hough and White, 2003; Lawless and Finch, 1989). Few studies have integrated the concept of

Of interest to our work is how firms deal with the uncertainty in their industry when they take on an international acquisition and how this influences their post-acquisition performance. One line of research in uncertainty suggest that for firms facing high levels of industry uncertainty they should work to survive by becoming involved in the widest range of environments possible (Wernerfelt and Karnai, 1987). Further, Hambrick and Finkelstein (1987) suggest that uncertainty actually can expand a firm’s options by reducing inertial tendencies. This provides a motivation for firms to be more flexible. Research has also shown that uncertainty is positively related to firm innovation (Khan and Manopichetwattana, 1989; Miles et al., 2000; Thornhill, 2006). Weerawardena et al. (2006) find that higher levels of uncertainty also leads to higher levels of market based learning as the firm copes with the ambiguity in their environment. This taken with the opportunities that exist for firms under uncertainty (Dean et al., 1993) we expect that firms will be able to recognize greater gains from geographical diversification through the uncertainty in their main home based industry.

Hypothesis 2a: Uncertainty in the industry of geographically diversifying US based firms has a positive relationship with post acquisition performance as measured by Tobin’s Q.

Hypothesis 2b: Uncertainty in the industry of geographically diversifying US based firms has a positive relationship with post acquisition performance as measured by sales growth.
Hypothesis 2c:
Uncertainty in the industry of geographically diversifying US based firms has a positive relationship with post acquisition performance as measured by asset growth.

Interaction between Knowledge Breadth and Industry Uncertainty

In looking at the drivers of post-acquisition performance we expect that there will be an interaction between our firm- and industry-level drivers. We will first explicate on our already built theory to explain the relationship between knowledge breadth and post-acquisition performance when uncertainty is high. Under high uncertainty firms must be able to focus on the constraints of the industry. In the case of uncertainty the volatility of the industry can make it difficult for the firm to understand the conditions (Daft and Weick, 1984) and provide them difficulty in the decision making process (March and Simon, 1958; Mintzberg, 1990). In this situation firms will need to spend time to focus on the uncertainty in the market which will distract from their ability to transfer knowledge from both the target and also through the firm itself. On the higher end of knowledge breadth, under high uncertainty, firms must have the capability to increase their information processing and have the necessary skill to deal with the complexity and variety of uncertainty of the environment (Datta et al., 2005). To reiterate, the sticky nature of knowledge will make it difficult for firms to integrate their internal and external knowledge (Tanriverdi and Venkatraman, 2004) when they are required to focus on the uncertainty in the industry.

Under low uncertainty the firm will be in a position of stability and a lack of ambiguity in the industry. This will allow the firm to focus on their internal knowledge rather than spending time responding and accounting for the nature of uncertainty. When there is low uncertainty managers will be able to pay attention to the recombinations and organization of knowledge within the firm (Ocasio, 1997). As such, firms will either be able to specialize in the limited
knowledge they have or put the effort in to deal with the breadth of knowledge they have. On the low end of knowledge breadth we expect that firms will be able to recognize scale efficiencies in their problem solving by utilizing their knowledge stores and past experience in order to inform their decisions and solutions moving forward (Nickerson and Zinger, 2004). Nickerson and Zinger (2004) further highlight that in order to maximize the ability of the firm to deal with problems that arise the firm must be able to efficiently manage the solution search process. On the high end of the knowledge breadth scale we expect that firms will be able to leverage their wide knowledge stocks to come up with unique solutions to problems that arise (Peteraf, 1993; Teece, 1982). The fact that firms are able to pay attention to the integration and recombination of knowledge from the acquired firm means that they will be able to leverage the situation for higher gains. Based on the above we expect that geographically diversifying firms will see a U shaped relationship between knowledge breadth and post-acquisition performance when they can focus on the acquisition under low uncertainty and that when uncertainty is high we will still see and inverse-U shaped relationship.

Hypothesis 3a: Uncertainty moderates the relationship between the knowledge breadth of geographically diversifying US based firms and post-acquisition performance, as measured by Tobin's Q, in such a fashion that when uncertainty is low firms can recognize an efficiency benefit on the low end of knowledge breadth and a scope benefit on the high end of knowledge breadth making a U shaped curve but when uncertainty is high knowledge breadth has a platykuric inverse-U shaped relationship as firms must focus on the uncertainty in the environment.

Hypothesis 3b: Uncertainty moderates the relationship between the knowledge breadth of geographically diversifying US based firms and post-acquisition performance, as measured by sales growth, in such a fashion that when uncertainty is low firms can recognize an efficiency benefit on the low end of knowledge breadth and a scope benefit on the high end of knowledge breadth making a U shaped curve but when uncertainty is high knowledge breadth has a platykuric inverse-U shaped relationship as firms must focus on the uncertainty in the environment.
Hypothesis 3c: Uncertainty moderates the relationship between the knowledge breadth of geographically diversifying US based firms and post-acquisition performance, as measured by asset growth, in such a fashion that when uncertainty is low firms can recognize an efficiency benefit on the low end of knowledge breadth and a scope benefit on the high end of knowledge breadth making a U shaped curve but when uncertainty is high knowledge breadth has a platykurtic inverse-U shaped relationship as firms must focus on the uncertainty in the environment.

Interaction between Knowledge Breadth and Cultural Distance

Up to this point we have looked at firm and industry level factors and their influence on post-acquisition performance. When looking at geographically diversifying firms it is also relevant to investigate national level environmental factors. It has been used to look at a wide range of multinational issues in business from entry mode choice, market selection, performance, investment, control, to transfers of structures (Kogut and Singh, 1988; Rosenzweig and Nohria, 1994; Shenkar, 2001; Brouthers, 2002; Harzing, 2003; Tihanyi et al., 2005). Cultural distance has been looked at in the literature relating to international acquisitions, especially when knowledge is the focus. Cultural distance deals with the degree to which the norms of one society are different from those of another (Kogut and Singh, 1988; Hennart and Larimo, 1998; Lu, 2006). In line with KBV and knowledge transfers, cultural distance and its effect on knowledge in firm acquisitions has received some attention recently (Sarala and Vaara, 2010). Past studies have shown that it is possible that cultural distance has a positive effect on performance (Mejia and Palich, 1997; Park and Ungson, 1997; Tihanyi et al., 2005). Further, Sarala and Vaara (2010) suggest that the greater the cultural distance the greater the opportunities for acquiring different routines and knowledge stocks. Morosini and his colleagues (1998) provide one of the seminal works in the area of cultural distance and acquisition performance. They theorize that international acquisitions afford the focal firm access to these routines within the firm (Ghoshal, 1987) and that the greater the distance the more differences
will be seen between these knowledge stocks and routines (Hofstede, 1980; Lincoln et al., 1981). Theory has also been argued in that acquiring firms are predisposed to working to overcome issues that may arise from the cultural distance as they are already paying attention to these factors as they move into international acquisitions (Goulet and Schweiger, 2006). Chakrabarti et al. (2009) find that the benefits of dealing with culture in an international acquisition far outweigh the negatives that might be associated with it.

We expect that cultural distance will have an indirect effect on performance through its relationship with knowledge breadth. With our focus on the access and development of resources we expect there to be an enhancing of the relationship when there is greater cultural distance. In terms of knowledge breadth cultural distance and acquisitions can provide the firm with the opportunity to change the inertia of the organization and allow them to develop knowledge within the organization (Barkema and Vermeulen, 1998; Peng, 2001). Greater cultural diversity provides firms with an opportunity to learn, apply, and integrate the resources and capabilities of the target firm (Morosini et al., 1998; Barney, 1988; Ghoshal, 1987). Further, the acquisition also provides the firm access to unique and valuable capabilities (Chakrabarti et al., 2009). These capabilities will allow firms to integrate the knowledge gained from the acquisition with their knowledge stocks in order to address issues and see performance within the firm. These resources and abilities link directly back to intangible resources as the cultural diversity opens the door to viewpoints, options, and solutions that can enhance the decision making in a firm (Gomez-Mejia and Palich, 1997). With the theory pointing to a benefit from resources we expect that the inverse-U shaped relationship between knowledge breadth and post-acquisition performance will have tails that are less negative as the firm gains both knowledge in general and new views on how to leverage the knowledge they have currently.
Hypothesis 4a:
Cultural distance moderates the relationship between knowledge breadth of geographically diversifying US based firms and post-acquisition performance, as measured by Tobin’s Q, in such a fashion that the relationship is less negative (diversification discount for knowledge breadth is lesser as compared to when cultural distance is low).

Hypothesis 4b:
Cultural distance moderates the relationship between knowledge breadth of geographically diversifying US based firms and post-acquisition performance, as measured by sales growth, in such a fashion that the relationship is less negative (diversification discount for knowledge breadth is lesser as compared to when cultural distance is low).

Hypothesis 4c:
Cultural distance moderates the relationship between knowledge breadth of geographically diversifying US based firms and post-acquisition performance, as measured by asset growth, in such a fashion that the relationship is less negative (diversification discount for knowledge breadth is lesser as compared to when cultural distance is low).

METHODS

Sample

With our focus on M&A’s in international markets we started with the SDC Platinum Mergers and Acquisitions database. We selected for U.S. based firms taken part in acquisition activity internationally (Appendix A contains the list of nations in our sample). We use the date of the acquisition to collect observations from 2001-2005. U.S. based acquiring firms that meet these criteria were then matched with their comparable CRSP/Compustat data. We also use the SDC M&A information to match with various national level measures for the nation that the target firm resides in. In the end we end up with 1,209 acquisitions from 677 firms with 40 nations being represented.
Measures

We collected the firm level data from both the SDC M&A database and CRSP/Compustat. Our dependent variables for firm performance were calculated from Compustat. We look at three separate measures of post-acquisition performance for the firm. Past research has called for multiple performance measures in an effort to explain how the antecedents relate to different factors that make up post-acquisition performance (King et al., 2004). Tobin’s Q was calculated in line with Chung and Pruitt (1994) and represents the external markets valuation of the firm for the year after the acquisition (Carton and Hofer, 2006). Our internal market measures also come from Compustat and were calculated as the change in total assets from the year of the acquisition to two years later and the change in sales from the year of the acquisition to two years later for asset growth and sales growth respectively (Carton and Hofer, 2006; Datta, 1991; Morosisi et al., 1998). We chose to calculate the external market measure sooner than the internal as the external market measure is more instantaneous than the internal measures (Carton and Hofer, 2006).

Our independent variables come from both the firm and national level. At the firm level our measure of knowledge breadth is a count of the 2-digit SIC codes that the U.S. based firm operates in. This measure was collected from the SDC M&A data and represents the breadth of industries that the firm operates in (Lubatkin et al., 1993, Dess and Beard, 1984). Our measure of uncertainty for the industry the focal firm is in comes from the standard error of the beta for a regression of year on industry sales for the five years leading up to the acquisition date (Dess and Beard, 1984; Keats and Hitt, 1988). Our national level measure of cultural distance is in line with Kogut and Singh (1988) where we pulled the individual culture measure from the Globe study and proceeded to calculate out the distance measure (Reus and Lamont, 2009; Xiumei and
Kim and Gray (2009) assess the Hofstede (1980, 1991), Schwartz (1994, 2004) and the GLOBE (2004) frameworks and found consistency for the predictability of all three measures for cultural distance. Further, past research has provided evidence that the GLOBE culture constructs are better predictors in certain areas (Posthuma, 2009).

At the firm level we control for multiple variables that might influence the post-acquisition performance of the U.S. based firms. We use the total market cap from Compustat as the size of the firm. We also control for the deal value, year, industry (based on the 2-digit SIC code), and the number of acquisitions that the firm takes part in for the given year from the M&A database. We also control for industry competition by taking the inverse ratio of the top four firms sales to the total sales in the industry (Sahaym et al., 2007) and munificence by using the regression coefficient from the calculation used for dynamism (Dess and Beard, 1984; Keats and Hitt, 1988). At the national level we control for the human development index, economic freedom index, and political stability. The human development index (HDI) is a compilation index of measures for education, GDP, and life expectancy and broadly represents the level of development, which has been shown to impact valuation (Doukas and Travlos, 1988) and is compiled by the United Nations (United Nations Development Program (UNDP), 2005). The economic freedom index (EFI) comes from heritage.org and is a multifaceted measure of the ease of conducting business in a nation. The measure accounts for ten different areas including business freedom, trade freedom, monetary freedom, government size/spending, fiscal freedom, property rights, investment freedom, financial freedom, freedom from corruption, and labor freedom. Our third control of political stability comes from the Governance Indicators of the World Bank and addresses the consistency of the political environment of the target firm’s nation.
MODEL

Our model looks at predictors across both firm- and national-levels. Therefore, we required a multilevel modeling technique that would allow us to partition the variance across both levels while investigating cross-level interaction of variables. To do so, we used hierarchical linear modeling (HLM) with a restricted maximum likelihood estimation (Bryk and Raudenbush, 1992). This allowed us to investigate the effect of variables at different levels while maintaining the correct level of analysis for firm performance.

We use HLM to test all of our hypotheses. We investigated firm level hypotheses using within-group analysis. This shows how firm-level predictors influence the intercept of performance and their corresponding slopes. Finally, we investigated cross-level interaction by testing a significant national level effect along the firm-level slope (Heck and Thomas, 2009).

To interpret results, we centered our variables within the model. After group-mean centering our firm level variables (i.e., nation), following the recommendations of Heck and Thomas (2009), we then centered the national level variables at the grand-mean. This allows us to interpret the slopes as an outcomes model while taking into account all relationships. We build three different sets of models, one for each of the dependant variables in our tests. In consideration of the hypothesized U shaped relationships we move forward with models that are supported if curvilinear and linearly if not. This progression allows us to understand interactions even if the inverse-U shaped relationship is not supported.

RESULTS

Table 1 shows the correlations among the variables in our model. Table 2 shows the model estimates for Tobin’s Q (A), Sales Growth (B), and Asset Growth (C). There are seven
models built in each of the three tables of model estimates. Model 1 looks at the controls in our model builds. Model 2 moves on to test the linear relationship for knowledge breadth and Model 3 tests the curvilinear inverse-U shaped relationship of knowledge breadth and post-acquisition performance. Model 4 moves on to test the main effect of industry uncertainty on post-acquisition performance. Model 5 tests the interaction between knowledge breadth and uncertainty on post-acquisition performance. Model 6 tests the influence of cultural distance on knowledge breadth.
Table 1: Correlations

<table>
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<th>4</th>
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<th>6</th>
<th>7</th>
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<th>10</th>
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<td>EFI</td>
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<td>-</td>
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<td></td>
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<tr>
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<td>-0.13</td>
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Correlations over 0.07 are significant at 0.05
Correlations over 0.06 are significant at 0.01
Table 2a: Model Estimates for Tobin’s Q

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<td>Industry Munificence</td>
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<td>KB Squared - Cultural Distance</td>
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*** = p<.001
** = p<.01
* = p<.05
† = p<.10
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<td>0.08</td>
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<tr>
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*** = p<.001
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*  = p<.05
†  = p<.10
Model 2 and 3 under Tobin’s Q tests the first hypothesis that there is an inverse-U shaped relationship between knowledge breadth and post-acquisition performance. We find partial support for this contention as the linear effect in Model 2 is significant ($\beta = -0.16, p < .000$) but the quadratic effect of Model 3 is not significant. This shows that knowledge breadth has a negative relationship with post-acquisition performance as measured by Tobin’s Q.

Model 3 under sales growth tests hypothesis 1b that there is an inverse-U shaped relationship between knowledge breadth and post-acquisition performance and we find support for this contention as the linear effect in Model 2 is significant and then moving to the quadratic effect of Model 3 we find significance with the linear term being significant and positive ($\beta = 0.24, p < .05$) and the quadratic term being significant and negative ($\beta = -0.51, p < .01$). This confirms the inverse-U shaped relationship with post-acquisition performance as measured by sales growth. Figure 1a shows the relationship supported in this hypothesis.

**Figure 1a: The relationship between Knowledge breadth and sales growth**
Model 3 under asset growth tests the relationship specified in hypothesis 1c. We find support for the inverse-U shaped relationship between knowledge breadth and post-acquisition performance in that the singular term of model 2 is significant and the singular term of model 3 is positive and significant (β = 0.40, p < .000) and the squared term is negative and significant (β = -0.56, p < .000). Figure 1b shows the relationship hypothesized and supported.

Figure 1b: The relationship between knowledge breadth and asset growth

Model 4 of the Tobin’s Q models shows the test of the contention of hypothesis 2a that uncertainty in the focal firm’s industry has a negative relationship with post-acquisition performance as measured by Tobin’s Q. Model 4 shows this relationship to be positive (β = 0.07, p < .05) finding the opposite of what we expect.
Model 4 of the sales growth model and the asset growth model test the relationship between uncertainty and post-acquisition performance as hypothesized in hypothesis 2b and 2c respectively. We find support for both the sales growth ($\beta = -0.09, p < .000$) and asset growth ($\beta = -0.10, p < .000$) hypotheses.

Hypothesis 3a, 3b, and 3c suggests that uncertainty moderates the relationship between knowledge breadth and post-acquisition performance in such a way that when uncertainty is low firms can recognize a U shaped curve but when uncertainty is high knowledge breadth has a platykurtic inverse-U shaped relationship as firms must focus on the uncertainty in the environment. Model 5 of the Tobin's Q, sales growth, and asset growth models tests this relationship. We find no support for the relationship with Tobin's Q. We do find support for sales growth with the singular interaction term being positive ($\beta = 4.91, p < .10$) and the squared term being negative ($\beta = -13.08, p < .01$). This interaction is shown in figure 2a. We also find support for asset growth with the singular interaction term being positive ($\beta = 6.16, p < .05$) and the squared term being negative ($\beta = -16.05, p < .01$). This interaction for asset growth is shown in figure 2b.
Figure 2a: Moderation by uncertainty on sales growth.

Figure 2b: Moderation of uncertainty on asset growth.
Hypothesis 4a, 4b, and 4c suggest that the cultural distance of the target firm’s nation moderates the relationship for the impact of knowledge breadth on post-acquisition performance as measured by Tobin’s Q, sales growth, and asset growth respectively. We expect this to show in that the greater the cultural distance the less negative the inverse-U shaped relationship will be. Model 6 tests these relationships and we do not find support for this within the Tobin’s Q models. We do find support for sales growth with the singular interaction term being negative ($\beta = -0.29$, $p < .000$) and the squared term being positive ($\beta = 0.27$, $p < .01$). This interaction for sales growth is shown in figure 3. We also find support for this in relation to asset growth with the singular term being negative ($\beta = -0.13$) and the squared term being positive ($\beta = 0.18$, $p < .01$). This relationship is shown in figure 6.

Figure 3a: Moderation by cultural distance on sales growth
DISCUSSION

Despite the studies that look at international acquisitions few have investigated the role of knowledge firm, industry, and national level and their relationships in order to better explain the context behind post-acquisition performance for these geographically diversified U.S. based firms. With this gap in the literature we set out to explain how firm level knowledge breadth, industry level uncertainty, and national level cultural distance relate to post-acquisition performance. As most research has looked at most at the influence of cultural distance on firm relationship we seek to test interactions across all three of these levels while correctly controlling for other national level factors by separating out the variance of the model. Our results show that it is important to consider the complexity in the environment when investigating the firm’s role in post-acquisition performance. Our theoretical framework suggests that both the knowledge a firm has and where they devote their time play a role in post-acquisition performance. Further, in
line with Reus and Lamont (2009) we suggest that cultural distance influences performance indirectly through the firm’s actions. While doing this we also find interesting results between our internal market measures of firm growth and our external market measures of Tobin’s Q.

Based on KBV we hypothesized that the knowledge breadth of a geographically diversifying firm will have an inverse-U shaped relationship with levels of post-acquisition performance. We find support for our theoretical contention that knowledge breadth has an optimal level for post-acquisition performance on the growth measures of performance. In line with theory, this suggest that firms with limited knowledge breadth lack the knowledge stores to deal with issues that come up while firms with high levels of knowledge breadth have difficulty integrating and managing the knowledge they have.

Also of interest is that we find a linear negative relationship between knowledge breadth and post-acquisition performance when measured by Tobin’s Q though growth measures of performance are positive. We believe that in the short term (i.e., consistent with our methods as the first year after the acquisition), stock market discounts cash flows from global diversification. This is consistent with numerous studies (e.g., Lang & Stulz, 1993; Berger & Ofek, 1995) that show the some diversification discount in the context of industrial diversification, as expansion is associated with certain risks. We believe that in our context, market discounts value in the early stages of cross-border venturing as it accounts for the risks and uncertainties associated with geographic diversification particularly those from the liabilities of ‘foreignness’ and ‘newness’ in a distant country. Another reason for divergent results from market-based measure (Tobin’s Q) is that this measure reflects potential for performance based on the perception of capital markets and does not account for tangible returns and rent generation by the firm itself (Shepherd, 1986). Further, this measure is associated with information asymmetry between managerial growth
strategies and perception of capital markets that is further accentuated by acquisitions in distant markets that are often filled with market noise (Copeland and Weston 1983, p. 335; Hill and Hoskisson, 1987).

We also look at how the firm interacts with the industry environment and the actions it takes as a result. We hypothesize that uncertainty in its home industry leads to higher levels of post-acquisition performance when an acquisition has taken place. Again we find a difference between our measures of performance. In terms of internal market growth we find that uncertainty promotes performance. It has been suggested that this uncertainty forces the firm to maintain flexibility and innovation within the firm diversifying internationally (Wernerfelt and Karnani, 1987). This highlights the importance of international diversification in uncertain environments and its subsequent links to post-acquisition performance. However, we find that when we use external market measures, the relationship between uncertainty and post-acquisition performance is negative. This lends to the idea that the market values a firm being able to focus under uncertainty. In the case of uncertainty the volatility of the industry makes it difficult for the firm to understand the conditions (Daft and Weick, 1984) and difficulty in the decision making process (March and Simon, 1958; Mintzberg, 1990). Supporting this Li and Simerly (1998) point out that the responses needed under uncertainty may be more complex and less well integrated to the point where it is difficult for owners and top-level managers to monitor the process. This would support the contention that the market would react negatively to uncertainty in international diversification.

We also expect an interaction between knowledge breadth and uncertainty on their influence on post-acquisition performance. We expected there to be a U shaped relationship when uncertainty is low and firms can focus but an inverse-U shaped relationship when
uncertainty is high. We find support for this on our growth measures internally. This supports theory in the area of a firm being able to focus (Nickerson and Zinger, 2004). This also highlights the importance of looking at both efficiency and scope issues in knowledge. Ansoff (1965) looks at synergies in terms of acquiring firms as either improvements to scale or scope efficiencies or some kind of skill transfer. This holds as it is possible for firms to specialize or use their breadth to be able to deal with the wide range of issues a firm faces. This also lends credit to the idea that when uncertainty is low firms are able to focus on their integration and use this specialization or breadth for leveraging post-acquisition performance. On the other hand we test the interaction for the singular term on Tobin’s Q but find no relationship; again this highlights the difference between performance measures. We find that the market does not take into account this complex relationship when evaluating the performance of the firm. As discussed above, it we expect that there is a certain amount of noise in the markets ability to process these relationships.

We also look at the influence of cultural distance on our hypothesized relationships. First we built theory to explain the influence of cultural distance on the relationship between knowledge breadth and post-acquisition performance. Theory shows that it is possible that there is a benefit from cultural distance through exposure to different knowledge and routines that are imbedded in the culture itself (Morosini et al., 1998). We find support for this contention as the inverse-U shaped relationship flattens out under higher levels of cultural distance. This supports the idea that cultural distance should be further explored as a moderator of international business relationships. However, we again find no relationship in terms of Tobin’s Q as post-acquisition performance.
THEORETICAL AND MANAGERIAL IMPLICATIONS

Our study contributes to the literature in several ways. First, it focuses on the broad conditions under which cross-border acquisitions create business value for the firm and shareholders. While literature is yet to come to a consensus on whether and how geographic diversification creates value, our findings provides a more nuanced view regarding performance implications contingent on the growth versus market-base measures of performance. We believe that our results provide a foundation for future research to explore the role of geographic diversification and contingencies on performance using a multi-level model. In addition, consistent with prior research on metrics of performance, our findings demonstrate that accounting-based growth measures are often different from market-based measures particularly in the short-term and managers need discretion to pursue their firms’ strategies for long-term growth and ‘visible’ market performance. For example, knowledge breadth has a negative relationship with post-acquisition performance as measured by Tobin’s Q; however, knowledge breadth has a positive relationship with sales and asset growth. Similarly, our predictions regarding influence of uncertainty on the relationship between diversification and growth measures of performance are supported whereas the same are not supported for market-based measure. Our theory has implications for both researchers and managers in that it highlights the importance of knowledge in the firm and demonstrates that in the presence of uncertainty, an optimal level of knowledge breadth is most conducive for firm growth. Similarly, in the presence of cultural distance, an optimal level of knowledge breadth is most conducive for firm growth. Overall, managers may maintain some level of specificity and relatedness to enhance their knowledge pool and leverage this for future growth.
Future research may investigate the differential relationships in international acquisitions based on different performance measures. This will allow scholars to better specify what relationships influence which parts of performance. While we work to better understand knowledge we are limited in that we do not have the ability to address the specific type of knowledge or how firms assimilate specific types of knowledge from the target. Future work should look at the knowledge breadth in the target firm and how this interacts with the focal firms’ knowledge stocks. We greatly encourage future work in this area to look at multiple aspects of performance and to compare between these.

Our study has limitations that future research may address. Though the timeframe is adequate for short-term strategy, a panel consisting of data for more than a decade could present a more complete picture on long-term strategic implications. While we present compelling short-term evidence, we were unable to provide long-term effects particularly for market-based measure—unavailability of quality data precluded such analyses for us. Further, we only use Tobin’s q as a market-based measure. Based on our unique findings, future research may use multiple measures such as event study to measure abnormal returns along with Tobin’s q and accounting-based growth measures. Overall, the results support our thesis that geographic diversification of firms with knowledge breadth is associated with superior growth and certain contingencies enhance rent generation from such diversification.
REFERENCES


CHAPTER FIVE

DISSERTATION SUMMARY AND GENERAL CONCLUSIONS

In this dissertation we look at specific ways firms interact in internationalized markets. We find results supporting the importance of investigating firm level outcomes while taking into account the environments the firms are a part of. With the first essay we examined the role of FDI in firm level innovation. Using 11,937 firms from 32 different nations we find that inward FDI does lead to higher levels of innovation for firms within that nation. We find that the national level context, rule of law, enhances the level of innovation a firm can recognize from FDI in a nation. At the firm level we also find that firm level absorptive capacity enhances this relationship. This relationship is also stronger when there is political stability within the nation. This research contributes to the knowledge-based view by highlighting the importance of scholars looking at the environment the firm is a part of. Inside of this context we show implications for policy makers in terms of the institutions and government involvement in the environment. We also highlight the managerial implications involved in working to appropriate knowledge from the environment the firm is a part of.

In the second essay we develop theory at multiple levels to better understand the inorganic growth of firms from emerging economies. We investigate 68 firms and their acquisitions of firms within the U.S from 1990-2009. Spawning form the resource-based view we investigate how a firm’s level of diversification influences its post-acquisition performance. We also seek to understand how competition and resource munificence in the industry promote or hinder this relationship. We find that diversification has a positive impact in one of our measures of post-acquisition performance and that competition and munificence influence post-
acquisition performance. We also find that munificence influences the relationship between diversification and post-acquisition performance and that the three way interaction between diversification, munificence, and competition influences post-acquisition performance. We find that the highest levels of diversification are found when there is high diversification, high munificence in the market, and low competition. These results highlight the importance of the industry considerations in inorganic growth.

Finally, in the third essay, we investigate the role of knowledge breadth in post-acquisition performance. Building on the knowledge-based view we test the hypothesis that the focal firm’s knowledge breadth has an inverse-U shaped relationship with post-acquisition performance. We also test how the firm’s industry uncertainty and the nation’s cultural distance influence this relationship. We do these tests on both market measures and internal growth measures of performance. Using 1,209 acquisitions with targets from 40 different nations we find differing results between the external and internal market growth measures. We also find support for the interactions between levels.

Overall, this dissertation highlights a few key points for research in strategy and international business. We show that it is important for scholars to continue to test their hypotheses in a fashion that takes into account the nested nature of their constructs. We also confirm that managerial actions are dependant on the environment that the firm is a part of. Our work further shows mechanism by which national policy influences firm action and growth.
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