

Spring 2017

# Two Essays on the Antecedents and Effects of Internationalizing Out of Emerging and Developed Economies

Mark Robert Mallon  
*Old Dominion University*

Follow this and additional works at: [https://digitalcommons.odu.edu/management\\_etds](https://digitalcommons.odu.edu/management_etds)

Part of the [Business Administration, Management, and Operations Commons](#), and the [Entrepreneurial and Small Business Operations Commons](#)

---

## Recommended Citation

Mallon, Mark R.. "Two Essays on the Antecedents and Effects of Internationalizing Out of Emerging and Developed Economies" (2017). Doctor of Philosophy (PhD), dissertation, , Old Dominion University, DOI: 10.25777/vayt-gt45  
[https://digitalcommons.odu.edu/management\\_etds/3](https://digitalcommons.odu.edu/management_etds/3)

This Dissertation is brought to you for free and open access by the Department of Management at ODU Digital Commons. It has been accepted for inclusion in Management Theses & Dissertations by an authorized administrator of ODU Digital Commons. For more information, please contact [digitalcommons@odu.edu](mailto:digitalcommons@odu.edu).

**TWO ESSAYS ON THE ANTECEDENTS AND EFFECTS OF INTERNATIONALIZING  
OUT OF EMERGING AND DEVELOPED ECONOMIES**

by

Mark Robert Mallon

B.A. magna cum laude May 2009, University of Illinois at Urbana-Champaign

M.P.A. May 2013, University of North Carolina at Chapel Hill

A Dissertation Submitted to the Faculty of  
Old Dominion University in Partial Fulfillment of the  
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

MANAGEMENT

OLD DOMINION UNIVERSITY

April 2017

Approved by:

William Q. Judge (Chair)

Edward Markowski (Member)

Stephen E. Lanivich (Member)

Stav Fainshmidt (Member).

## ABSTRACT

### TWO ESSAYS ON THE ANTECEDENTS AND EFFECTS OF INTERNATIONALIZING OUT OF EMERGING AND DEVELOPED ECONOMIES

Mark Robert Mallon  
Old Dominion University, 2017  
Director: Dr. William Q. Judge

Comparative international entrepreneurship is a field still in its infancy. One of the largest needs in this stream of research is an understanding of how internationalization activities differ across countries, especially growing emerging markets. These two essays compare the antecedents and effects of internationalizing out of emerging and developed economies. Essay 1 employs fuzzy-set Qualitative Comparative Analyses to investigate how distinct configurations of national business systems interact with founders' human capital to lead to high degrees of new venture internationalization. Findings indicate that new venture internationalization is an equifinal process that differs significantly across emerging and developed markets, with firms in emerging-economy internationalizing despite voids in key institutions, especially financial markets. This essay also contributes an understanding of the contingencies of home-country institutions, showing precisely when they matter more (or less) for new venture internationalization, as well as how founder human capital interacts with institutions.

Essay 2 shifts the focus to the international entrepreneurship of larger, established firms. Institutional theory is applied to hypothesize how home- and host-country institutional attributes affect the performance of newly established foreign subsidiaries before, during, and after the 2007-2009 global financial crisis. Results of hierarchical linear models show that new foreign subsidiaries of developed-economy multinational enterprises performed better in the pre-crisis

years, but those of emerging-economy multinational enterprises performed better during the crisis as well as after the crisis (if they possessed slack resources). This essay shows that the home country strongly influences the resilience of new foreign subsidiaries, and that resilience may be a unique strength of firms originating from emerging economies.

Copyright, 2017, by Mark Robert Mallon, All Rights Reserved

Dedicated to the memory of Rajiv Dant.

## ACKNOWLEDGEMENTS

There many people to thank for their support during my doctoral training. First and foremost, I am extremely grateful to my dissertation chair, Dr. William Judge, and my dissertation committee members, Drs. Ed Markowski, Stephen Lanivich, and Stav Fainshmidt. Not only were they incredibly supportive and helpful in all aspects of my dissertation work, but they have also served as mentors and sounding boards during my time as doctoral student. I would have been lost without their advice on navigating doctoral studies, publishing, and finding a job. They have influenced me greatly as exemplary scholars who pursue bold ideas, work hard, and act with integrity. I hope I can live up to the outstanding standard they have set.

I am also very thankful for the general support of the faculty and staff at Old Dominion University. The faculty of Strome College of Business are very helpful, even when they are not directly involved in the doctoral program. In particular, I want to thank Drs. Anil Nair and Ryan Klinger, who have helped me a great deal on my journey. They always kept their eye out for opportunities for me, and I am grateful for that. I also want to thank Drs. John Ford, Carl Liu, Jing Zhang, Rachel Frieder, George White, and Tim Madden for their support, as well Katrina Davenport, who is always willing and able to assist doctoral students with anything.

My fellow doctoral students at Old Dominion were a wellspring of support and kindness, and even a little fun, when time permitted. I am thankful for all of them, but especially Orhun Guldiken, Christina Tupper, Aslıgül Erkan, Ceren Ekebas-Turedi, Serdar Turedi, Elizabeth Rasnick, Erika Kordrostami, Vahid Rahmani, Feng Dong, Trung Nguyen, Amir Pezeshkan, Adam Smith, and Mehdi Sharifi.

Finally, I am incredibly grateful to my wife, Trish, for her patience and kindness. It is not easy when the two people in a marriage are pursuing doctoral studies simultaneously, but she somehow had the strength to go about her work and give me the motivation to continue mine.

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
ESSAY 1	
1. INTRODUCTION .....	2
2. NEW VENTURE INTERNATIONALIZATION PROCESS.....	4
2.1 Extent of New Venture Internationalization .....	5
2.2 Antecedents of New Venture Internationalization .....	6
3. A MULTILEVEL THEORY OF NEW VENTURE INTERNATIONALIZATION.....	9
3.1 National-Level Antecedents of New Venture Internationalization .....	10
3.1.1 The State .....	10
3.1.2 Financial System .....	12
3.1.3 Skill Development System .....	14
3.1.4 Conventions of Trust .....	16
3.2 Individual-level Antecedents of New Venture Internationalization .....	18
3.2.1 General Human Capital .....	18
3.2.2 Entrepreneurial Self-Efficacy .....	20
4. METHOD .....	21
4.1 Fuzzy-Set Qualitative Comparative Analysis .....	22
4.2 Sample .....	25
4.3 Measures	
4.3.1 Extent of internationalization .....	26
4.3.2 National-level state .....	27
4.3.3 National-level financial system .....	28
4.3.4 National-level skill development system .....	28
4.3.5 National-level trust .....	28
4.3.6 Founder-level general human capital .....	29
4.3.7 Founder-level entrepreneurial self-efficacy .....	29
5. EMPIRICAL RESULTS .....	30
5.1 Test of Necessity .....	30
5.2 Test of Sufficiency .....	31
5.3 Robustness Check .....	34
6. DISCUSSION .....	35
6.1 Theoretical Implications .....	36
6.2 Practical Implications .....	41



7. CONCLUSION .....	42
8. REFERENCES: ESSAY 1 .....	44
ESSAY 2	
1. INTRODUCTION .....	63
2. INTERNATIONAL CORPORATE ENTREPRENEURSHIP .....	65
2.1 Antecedents of International Corporate Entrepreneurship .....	66
2.2 Evaluating the Performance of International Corporate Entrepreneurship .....	67
3. THEORETICAL DEVELOPMENT .....	69
3.1 Pre-crisis Performance .....	71
3.2 In-crisis Performance .....	75
3.3 Post-crisis performance .....	81
4. METHODOLOGY .....	89
4.1 Sample .....	89
4.2 Measures .....	90
4.3 Analytical Technique .....	93
4.4 Results .....	94
5. DISCUSSION .....	96
5.1 Theoretical Implications .....	97
5.2 Managerial Implications .....	100
6. CONCLUSION .....	101
7. REFERENCES: ESSAY 2 .....	102
VITA .....	124

## LIST OF TABLES

## Table

Table 1.1 List of Home Countries and Number of International New Ventures in Sample .....	58
Table 1.2. Descriptive Statistics .....	59
Table 1.3. Test of Necessary Conditions for High Extent of Internationalization .....	60
Table 1.4. Test of Sufficient Configurations for High Extent of Internationalization .....	61
Table 2.1. Descriptive Statistics .....	117
Table 2.2 Pre-crisis Performance of New Foreign Subsidiaries (2004-2006) .....	119
Table 2.3 In-crisis Performance of New Foreign Subsidiaries (2007-2009) .....	120
Table 2.4 Post-crisis Performance of New Foreign Subsidiaries (2010-2012) .....	121

## LIST OF FIGURES

## Figure

Figure 2.1 Theoretical Framework of New Foreign Subsidiary Performance .....	122
Figure 2.2 Moderating Effect of Slack on Performance During Post-Crisis Period .....	123

## ESSAY 1

### MULTILEVEL CONFIGURATIONS OF INTERNATIONAL NEW VENTURES

#### ABSTRACT

This study investigates the multilevel antecedents of new venture internationalization within the global economy. Fuzzy-set Qualitative Comparative Analysis is used to examine the complex, nonlinear interactions of national business system attributes and founder human capital characteristics using data from the Global Entrepreneurship Monitor. We find multiple configurations of national business systems and founder human capital that consistently lead to high levels of new venture internationalization. Specifically, we find three high-level configurations in emerging economies, and five high-level configurations in developed economies. Notably, our empirical results indicate that national institutions may play a less prominent role in emerging economies, as firms in these countries may internationalize to offset a lack of developed financial systems. Conversely, national institutions play a more influential role in developed economies. In both contexts, we find that the role of the state is important in influencing new venture internationalization, along with either high levels of trust or an advanced skill development system. Additionally, various forms of founder human capital are substitutable when new ventures internationalize, depending on the precise business system context.

**Keywords:** International new ventures, national business systems, human capital, qualitative comparative analysis.

## 1. INTRODUCTION

New business ventures are essential to any economy, and leaders of new businesses often expand their geographic focus to foreign locations (Oviatt & McDougall, 1994). A high extent of new venture internationalization, or the amount of sales in foreign countries, is thought to be a strong indicator of firms' growth potential (Global Entrepreneurship Monitor, 2016). Yet, scholarly understanding of the extent of new venture internationalization is fragmented.

One of the key gaps in our understanding of new venture internationalization has to do with the role of national institutions and their relationships with venture-level characteristics and outcomes (Bruton, Ahlstrom, & Obloj, 2008). Previous research has emphasized national-level determinants and national outcomes, such as new venture creation rates (e.g., Spencer & Gómez, 2004; Valdez & Richardson, 2013). Although this line of research is enlightening, such macro-level studies have neglected venture-level characteristics as well as the critical role of the entrepreneur (Gartner, Shaver, Gatewood, & Katz, 1994). Indeed, founders' human capital is an important predictor of new venture internationalization (Kundu & Katz, 2003).

Consequently, although national-level determinants of entrepreneurship are established, how they influence the extent of new venture internationalization at the firm level is not. Moreover, the interaction of national- and venture-level characteristics is not well understood, despite a general agreement that entrepreneurs are deeply embedded in, and influenced by, their institutional environments (Bruton, Ahlstrom, & Li, 2010; Tolbert, David, & Sine, 2011). This lack of understanding is especially severe for ventures internationalizing out of emerging economies (Bruton et al., 2008).

To overcome some of these gaps and limitations, we pose the multilevel research question: How does founders' human capital interact with domestic national institutions to affect

the extent of new venture internationalization from both emerging and developed economies?

We compare emerging and developed economics because previous research has shown that the internationalization motivation and process differs greatly in both contexts (Kiss, Danis, & Cavusgil, 2012). Such differences arise because critical national institutions, such as educational systems and advanced infrastructure, are often lacking in emerging economies (Hoskisson, Wright, Filatotchev, & Peng, 2013; Kiss et al., 2012), and thereby may impede internationalization (Yiu, Lau, & Bruton, 2007).

To address this question, we seek to identify interactions and combinations of antecedent conditions emanating from the National Business System framework (Whitley, 1999) and the entrepreneurial human capital literature (e.g., Chen, Greene, & Crick, 1998; Cooper, Gimeno-Gascon, & Woo, 1994). Using a sample of approximately 200 new ventures from emerging economies and 200 new ventures from developed economies, we use fuzzy-set Qualitative Comparative Analysis (fsQCA) to capture the complex interactions among founder- and national-level factors. Based on our results, we draw inferences from the nonlinear, conjunctural causation among these multilevel antecedents of new venture internationalization.

We find that there are multiple, context-dependent paths to high levels of new venture internationalization in both emerging and developed economies. Moreover, we demonstrate precisely when and how national- and founder-level factors interact as component parts of unique holistic gestalts. These theoretical insights contribute to the comparative international entrepreneurship stream of research by illustrating the equifinality of achieving a high extent of new venture internationalization, as well as how these paths differ depending on whether a new venture originates from an emerging or developed economy. Additionally, we find evidence of substitutability among certain national institutional and human capital attributes surrounding the

new venture internationalization process. A recent review noted that although comparative entrepreneurial internationalization is central to the international entrepreneurship stream, very few studies exist in this area (Jones, Coviello, & Tang, 2011). This study is among the first to examine empirically how home-country national institutional systems combine with founder human capital to jointly influence the extent of new venture internationalization in both emerging and developed countries. Based on these insights, we offer implications for new venture founders and policy makers, and suggest avenues for future research.

## **2. NEW VENTURE INTERNATIONALIZATION PROCESS**

Firms that internationalize very early in their existence are commonly referred to as international new ventures (Oviatt & McDougall, 1994), reflecting a more global outlook earlier in the firm life cycle than a typical new venture. Scholarly interest in such organizations has had a profound impact on studies of international business and entrepreneurship (Zahra, 2005). For instance, international new venture research has mounted a serious challenge to the Uppsala model of internationalization (Johanson & Vahlne, 1977). The Uppsala model holds that firms first seek to establish domestic success and only then begin to internationalize through a gradual process. Yet, studies of international new ventures have pointed to much faster modes of internationalization for certain organizations that have a strong international orientation within the first 10 years of existence (Knight & Cavusgil, 2004; Kundu & Katz, 2003; Oviatt & McDougall, 1997; Yamakawa, Khavul, Peng, & Deeds, 2013). In other words, new ventures that internationalize early in their life cycle appear to skip steps in the Uppsala process model by expanding quickly following venture formation, and often into culturally and economically distant countries. For example, “born globals” are a subset of international new ventures that seek large shares of international sales at or near the moment of firm inception by leveraging

unique knowledge-based resources and special relationships with foreign partners (Knight & Cavusgil, 2004).

New ventures are very susceptible to failure due to their small size and newness (Gilbert, McDougall, & Audretsch, 2006), and internationalization entails further challenges relating to unfamiliarity with other cultures and ways of doing business (e.g., Zaheer, 1995). Although internationalization is always risky, there may be significant benefits to early internationalization: First, firms can leverage distinct competencies (e.g., technological competencies, unique product development routines) across many markets (Knight & Cavusgil, 2004). Second, firms are thought to become more rigid as they age. By internationalizing early in their organizational life cycle, new ventures can take advantage of their lack of inertia and maximize their ability to learn for long-term growth in international markets (Autio, Sapienza, & Almeida, 2000; Oviatt & McDougall, 1994). Indeed, firms that follow the Uppsala pattern of internationalization and enter international markets at later stages tend to have much lower subsequent international growth (Autio et al., 2000).

Finally, increased diversity of internationalization (that is, entering many different markets) is positively associated with more breadth and depth of technological learning, as well as speed of technological learning when routines exist for knowledge integration (Zahra, Ireland, & Hitt, 2000). Although early internationalization is not without its risks (Oviatt & McDougall, 1997), there are many long-term organizational benefits relating to learning and growth.

## **2.1 Extent of New Venture Internationalization**

The extent to which new ventures internationalize can be conceptualized as the proportion of sales coming from foreign countries (Oviatt & McDougall, 1994). However, the mechanisms by which such sales are achieved in early-stage firms are markedly different from



those typically found in more well-established multinational enterprises. As noted, early internationalization in the organizational life cycle contradicts the internationalization pattern predicted in the Uppsala model. Whereas most firms internationalize only after many years of success in their home country, international new ventures generally achieve foreign sales within the first 10 years of their existence (Knight & Cavusgil, 2004; Yamakawa et al., 2013). Because these firms are so young, they face barriers to internationalization due to resource constraints and a lack of experience in foreign markets. Accordingly, the mode of entry into foreign markets differs greatly from established companies. For example, large multinational enterprises may enter other countries via foreign direct investment, whereas international new ventures often do not own assets in other countries to reap foreign sales (Oviatt & McDougall, 1994). However, international new ventures can use other means to reach foreign markets, such as strategic alliances and exporting.

Among these options, exporting products may be the most common and least risky mode of international diversification. This is because exporting does not require large capital investments, and it maximizes flexibility to respond to shifting industry conditions or to incorporate learning that occurs during the start-up process (Knight & Cavusgil, 2004). Additionally, agents in the importing country can supply needed expertise. Accordingly, most studies operationalize the extent of new venture internationalization using export intensity, or the ratio of export sales to total sales (e.g., Knight & Cavusgil, 2005; Kuivalainen, Sundqvist, & Servais, 2007; Kundu & Katz, 2003). A typical international new venture generates about 25% of its sales abroad (Knight & Cavusgil, 2005).

## **2.2 Antecedents of New Venture Internationalization**

Given the potential benefits of early internationalization and its documented existence in the business world (McDougall, Shane, & Oviatt, 1994), there is a nascent but burgeoning stream of research to understand how new ventures in general, and international new ventures in particular, differ across nations. Comparative international entrepreneurship involves the cross-country study of either domestic entrepreneurship within different countries or cross-country comparisons of entrepreneurial internationalization (Oviatt & McDougall, 2005; Terjesen, Hessels, & Li, 2016). Though it is an important part of entrepreneurship studies, comparative international entrepreneurship has been described as being in its “infancy” (Engelen, Heinemann, & Brettel, 2009). Indeed, most cross-country studies within comparative international entrepreneurship focus on the differences in domestic entrepreneurship rates, with little regard for how new ventures might differ in various national contexts.

In this stream, institutional theory is the dominant framework used to compare how national-level attributes influence entrepreneurial activities within and across countries (Terjesen et al., 2016). Institutions represent the “rules of the game” that actors follow when engaging in economic transactions (North, 1990). Institutions largely determine the resources and capabilities (Martin, 2014) as well as the strategic options available to firms (Peng, Wang, & Jiang, 2008). To understand how institutions affect entrepreneurial activities across different countries, scholars have used Scott’s (1995) institutional pillars – normative, cognitive, and regulatory – as a starting point for comparing national differences in entrepreneurship (e.g., Busenitz, Gomez, & Spencer, 2000). The role of normative institutions, such as national culture and trust, as well as cognitive factors, appear to play prominent roles in promoting entrepreneurial activity (Spencer & Gómez, 2004; Valdez & Richardson, 2013). However, this theoretical lens emphasizes conformity to norms, whereas economic institutionalism embodies

the structuring of economic systems and the resulting economic actions of firms and individuals (Bruton et al., 2010).

There is more extensive research regarding national-level economic institutions and their effects on entrepreneurship, though studies are largely limited to comparisons of domestic entrepreneurship at the country level of analysis, with few insights at the founder or firm level, or for international new ventures. At the country level, as the quality of governmental regulations increases, rates of new venture formation rise due to the decreased risks and costs of switching from employment to self-employment (Gohmann, 2012). Additionally, regulatory quality and simplified legal codes promote entrepreneurship by protecting intellectual property and motivating potential entrepreneurs to engage in productive business formation to exploit such resources (Lim, Morse, Mitchell, & Seawright, 2010; McMullen, Bagby, & Palich, 2008; Sobel, 2008).

Although few institutional studies take individual founders or firms into account, scholars have focused exclusively on individual- or firm-level attributes. In this area, research has been more directly linked to international new ventures. As we will discuss in more detail below, individual knowledge and attitudes are important for the internationalization and success of international new ventures. Individuals' existing knowledge plays a critical role in the recognition of international opportunities by making them alert to opportunities that pertain to their idiosyncratic knowledge and skills (Chandra, Styles, & Wilkinson, 2009; Kirzner, 1997; Nordman & Melén, 2008). Following international opportunity recognition, entrepreneurs must then have the management skills and confidence to exploit such opportunities (Kuivalainen et al., 2007; Kundu & Katz, 2003).

In sum, both institutional and individual factors matter for new venture internationalization. However, few studies have focused on the joint effects of institutions and individual attributes on distinct international new venture phenomena. Although the comparison of how firms internationalize in different country settings is central to the international entrepreneurship stream, a recent review noted an almost absolute absence of work in this area (Jones et al., 2011). Thus, there exists a need to understand the independent effects of institutional factors on international entrepreneurship and how institutional *systems* operate cohesively to influence cross-border entrepreneurial activities (Lim et al., 2010; Terjesen et al., 2016). Towards this end, Whitley's (1999) National Business System (NBS) framework has been recommended as a comprehensive theoretical lens for understanding the phenomena in question (Kiss et al., 2012; Lim et al., 2010; Terjesen et al., 2016). Additionally, given the plethora of studies focused on the country level of analysis, scholars have called for more research regarding the multi-level interactions among entrepreneurs and the institutional systems within which they are embedded (Bruton et al., 2008; Terjesen et al., 2016). The present study aims to begin filling this void by investigating the role of NBS attributes and founder human capital in regards to internationalization of international new ventures.

Next, we discuss the four attributes in the NBS framework as well as the key human capital traits that influence new venture internationalization. We show that these factors differ substantially between emerging and developed economies, highlighting the need for a comparative approach to new venture internationalization.

### **3. A MULTILEVEL THEORY OF NEW VENTURE INTERNATIONALIZATION**

In this section, we develop a holistic perspective on the multilevel antecedents of new venture internationalization. We first propose salient causal factors at the national level, and then

focus on causal factors at the individual level of analysis. Because previous theory and research is unclear as to how these causal factors at different levels of analysis interact, we rely on fuzzy-set Qualitative Comparative Analysis (fsQCA) to inductively determine the causal configurations. As we will discuss in more detail, this technique is a configurational comparative method that is both inductive and deductive. It is ideal when scholars know the causal factors at play, but not necessarily all possible configurations that should lead to the outcome. Given the paucity of cross-country comparative internationalization research and the inherent complexity of new venture internationalization phenomena, this advantage is significant.

### **3.1 National-Level Antecedents of New Venture Internationalization**

Whitley's (1999) NBS framework is one of the most popular and prominent perspectives of national institutional configurations (Jackson & Deeg, 2008; Redding, 2005). It comprehensively incorporates both formal and informal institutions, stating that four key institutional factors affect the economic behavior of firms and individuals within national boundaries: (1) the state, (2) the financial system, (3) the skill development system, and (4) conventions and cultural norms associated with trust. Each of these institutional factors works independently and in tandem with the others to influence the extent of internationalization of new ventures.

**3.1.1 The state.** The role of the state indicates government dominance, government willingness to share risks with private owners, and, critically, the extent and types of regulation of markets. As discussed above, high-quality governmental regulations often foster new venture formation by reducing the risk to founders (Gohmann, 2012) and by protecting intellectual property (Lim et al., 2010; McMullen et al., 2008; Sobel, 2008). In turn, firms have an incentive to develop proprietary knowledge and other assets that could become the basis for an

international competitive advantage (Dunning, 1980). Hence the role of the state is central to the domestic entrepreneurial experience as it protects the physical and intellectual property of young firms, motivating people to engage in riskier entrepreneurial activities. Not surprisingly, governmental policies that protect property rights and otherwise reduce the costs of doing business are thought to be critical drivers of new venture internationalization, as these policies enable and nurture innovation that can be mobilized to capture value in the home country and foreign markets (Acs, Morck, Shaver, & Yeung, 1997). Put differently, a strong state buffers entrepreneurs from forces that might expropriate or reduce the value of their innovative ideas. In turn, entrepreneurs are more likely to innovate, creating a firm-level competitive advantage that could be exploited across national borders.

However, such processes generally hold true only in developed economies. Stringent and reliable federal regulations are typically lacking in emerging economies (Contractor, 2013; Hoskisson, Eden, Lau, & Wright, 2000; Ramamurti, 2012), meaning entrepreneurship can be more risky, and intellectual property could potentially be expropriated (Zhao, 2006). Thus, entrepreneurs based in countries with weak states may be more likely to engage in necessity-based entrepreneurship to earn a living for themselves, rather than engaging in opportunity-based entrepreneurship that may lead to potential international growth (Bowen & DeClercq, 2008).

Yet, a weak state could lead new ventures down the path of internationalization. Although founders may fear expropriation in their home country, they are often cognizant of the strength of intellectual property protection in other countries. For example, founders of new ventures in India often seek to internationalize to the United States or Europe in order to take advantage of the stronger intellectual property laws in those countries (Fok & Advani, 2016). By internationalizing into countries with strong intellectual property laws, new ventures gain an

additional isolating mechanism to protect the source of their competitive advantage. Founders in emerging economies may therefore be “pushed” to internationalize in order to sell in markets with stronger intellectual property laws (Witt & Lewin, 2007), where reverse engineering and other forms of expropriation are less likely.

Hence, the strength of the state likely influences the extent of internationalization of new ventures, but its role could be positive (e.g., making business formation less risky) or negative (e.g., pushing firms to internationalize into markets where regulations are more protective of intellectual property). That is, the strength of the state in new ventures’ home country will likely be an important factor of the extent of new venture internationalization, but its exact effects will be highly contingent on other institutional and founder-level attributes. These insights lead to the following:

*Proposition 1: The strength of the state of new ventures’ home country will significantly influence the extent of new venture internationalization.*

**3.1.2 Financial system.** The financial system dimension reflects how capital markets operate within a country (e.g., capital vs. credit-based markets, availability of entrepreneurial financing). Access to financial capital is a key need for new ventures, and one of the most important predictors of new venture growth (Hsu, 2007). For example, venture capitalists provide important seed money to grow new ventures, as well as advise them on international strategy (Wright, Pruthi, & Lockett, 2005) and how to operate a business successfully (Gompers, 1995; Sahlman, 1990).

A well-developed financial system is critical for new venture internationalization because it provides access to the capital needed to fuel international growth. As discussed above, one of the greatest constraints of new venture international growth is a lack of resources. This is

because international business activities are often inherently more complicated and costly than domestic business activities. First, internationalizing means dealing with foreign cultures, different norms of doing business, and the complexities of cross-national transactions, adding costs that domestic firms would not incur (Zaheer, 1995). Second, although the most common entry mode for new venture internationalization (i.e., exporting) is among the least expensive, it entails significant costs related to finding and contracting with import agents in the host country. Third, exporting often means paying tariffs on goods imported into the host country. Therefore, substantial external capital is often needed to implement new ventures' international growth ambitions. A well-developed financial market facilitates the matching of new ventures' needs with potential investors, facilitating the realization of planned international growth (Wright et al., 2005).

Without a developed financial system to match investable capital with the financial needs of new ventures, international growth may be much more difficult for new ventures to achieve. Although most developed countries have some sort of functioning financial system, in many emerging markets, such systems are weak or non-existent (Inoue, Lazzarini, & Musacchio, 2013), potentially constraining the international growth of new ventures based in such countries. Yet, as with the case of property protection in the discussion of the strength of the state, emerging-market new ventures may be pushed to internationalize to gain access to financing. By internationalizing into countries with better developed financial systems, they may be able to gain access to foreign capital that could be used to fuel further international expansion (Alexander, Eun, & Janakiramanan, 1988). Indeed, empirical evidence has shown that emerging-market firms seek to "escape" less developed financial markets in their home countries by internationalizing into countries with more developed financial systems, perhaps as a means of



funding subsequent international growth, among other benefits (Temouri, Driffield, & Bhaumik, 2016). In sum, the development of home-country financial systems will be an important factor in explaining the extent of new venture internationalization. However, domestic financial systems could play a dual role in that both well-developed and less-developed financial systems could lead new ventures to internationalize more. Thus:

*Proposition 2: The level of development of the national financial system in new ventures' home country will significantly influence the extent of new venture internationalization.*

**3.1.3 Skill development system.** The skill development system refers to how individuals are educated and trained to prepare them for employment. As we will discuss in more detail below, individuals' human capital – the knowledge and skills they possess – is a key driver of opportunity recognition, business management, and international growth. At the national level, strong skill development systems based on quality schools and universities contribute to countries' capacity for innovation (Furman, Porter, & Stern, 2002), interacting with firm-level attributes to create sources of international competitive advantage for firms headquartered there (Martin, 2014). This is because a baseline-level of individual human capital is needed to understand technology and how it could be applied in business settings (Shane, 2000). Typically, in terms of human capital in the form of education level, at least a bachelor's degree is needed for successful technology-based entrepreneurship (Mallon, Lanivich, & Klinger, 2016). Hence without a strong skill development system, opportunity-based entrepreneurship is more difficult (Bowen & De Clercq, 2008), as individuals may lack the knowledge and skills to recognize and exploit opportunities with great potential for both domestic and international sales.

Therefore, a strong skill development system will nurture innovation by endowing entrepreneurs and potential entrepreneurs with knowledge to develop unique products and

services. Subsequently, a greater extent of internationalization may occur because technology products are usually easier to standardize and sell across many different markets (Jain, 1989). Indeed, early case studies of international new ventures were almost always technology-based ventures (e.g., Knight & Cavusgil, 2004; Oviatt & McDougall, 1997). Moreover, competitive advantages based on technology and other forms of intellectual property are among the most common and profit-generating forms of international competitive advantage (Kirca et al., 2011), and are often directly attributable to the business system of the firm's home country (Mallon & Fainshmidt, 2017). In sum, a strong skill development system plays an important role in the development of firm resources and their subsequent exploitation in overseas markets.

However, weaker skill development systems are common in many emerging economies, hindering the development of firm-specific resources. Instead, early on in their lives, emerging-economy firms often rely on relative advantages (e.g., inexpensive labor) until firm-specific resources can be developed (Sun, Peng, Ren, & Yan, 2012). This is often accomplished by rapid, "springboard" internationalization (Luo & Tung, 2007). An accelerated internationalization process helps emerging-economy firms gain access to strategic resources in other countries (Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010; Mathews, 2006), which are then combined with existing resources to develop unique forms of international competitive advantage. This evidence suggests that the strength of skill development systems within countries may have divergent effects on the extent of new venture internationalization, in that a strong system fosters critical human capital needed to recognize and exploit unique opportunities, but a weak one could also lead founders to internationalize to aid in the acquisition of strategic resources. Hence:

*Proposition 3: The strength of the skill development system in new ventures' home country will significantly influence the extent of new venture internationalization.*

**3.1.4 Conventions of trust.** Finally, dominant conventions regarding trust indicate the reliability of institutions and norms governing relations and exchanges, as well as how social actors interact with authority figures. This dimension reflects how economic actors can be assured that commitments will be reliable and the extent to which actors can be expected to comply with established rules and norms (Whitley, 1999). Essentially, without trust in institutions and authority figures, the strengths of other dimensions of the business system may be diminished. For example, stringent government regulations may be meaningless if businesses have no expectation that they will be enforced.

Consequently, in countries with high levels of trust, entrepreneurs can expect an easier path to internationalization. As discussed, internationalization requires substantial financial commitments from new ventures that are already resource-constrained. Institutional contexts with higher levels of trust help ensure that new ventures will not lose financial commitments due to illegal or opportunistic actions. In turn, this trust in other elements of the business system reduces the transaction costs associated with internationalization and increases the speed of international growth (Kiss & Danis, 2008).

In countries with low levels of trust, actors may not abide by laws or follow through with commitments. Authority figures, such as the government, may interfere in the economy in violation of norms. These circumstances make economic transactions more risky, leading to lower rates of both entrepreneurship and innovation (Anokhin & Schulze, 2009). This is because founders may fear that their work to build their ventures could be in vain, as property could be expropriated by other actors or authority figures.

A systemic lack of trust in institutions is common in many emerging economies (Uhlenbruck, Rodriguez, Doh, & Eden, 2006), perhaps leading to the increased costs of new

business formation in emerging economies vis-à-vis developed ones (Yamakawa, Peng, & Deeds, 2008). However, such business systems may create novel paths to new venture internationalization compared to those found in developed economies. New ventures in developed countries can often rely on stable and trustworthy institutions to help them develop and protect both physical and intellectual property that could become the basis for an international competitive advantage and a positive driver of internationalization.

On the other hand, new ventures in emerging economies may not have as much faith in their systems, and may be forced to engage in illicit behavior in order to ensure survival (Tonoyan, Strohmeyer, Habib, & Perlitz, 2010). Accordingly, new ventures in emerging economies often see internationalization as a means of escaping the negative aspects related to a national lack of trust (Contractor & Kundu, 2004; Stoian & Mohr, 2016). By internationalizing into other countries – and particularly into those with more trust – they reduce uncertainties associated with the lack of trust in their home countries. For example, they gain access to more secure markets in which to sell their goods (Guillén & García-Canal, 2009), and may even benefit from a “halo effect” of operating in highly regarded markets, increasing their legitimacy in the eyes of others (Yamakawa et al., 2008). Once again, the role of trust appears to exhibit a nuanced relationship with the extent of new venture internationalization, with both high and low levels possibly motivating new ventures to internationalize. Thus:

*Proposition 4: The level of generalized trust in new ventures' home country will significantly influence the extent of new venture internationalization.*

Importantly, Whitley (1999) argued that the four NBS factors work not in isolation of each other, but rather *in tandem* to affect economic activities. In his words: “. . . the explanation of differences between individual business systems. . . clearly depends on an analysis of all the

key institutions and how they interdependently structured the specific form of economic organization that developed” (Whitley, 1999; 55). For example, an advanced skill development system may be needed to develop a national capacity for innovation, but such capacity would likely not lead to innovative products or services at the firm level unless the state protects intellectual property. In other words, it is the unique *gestalt* of NBS factors that matter more than their individual levels. Yet, research that accounts for the entire National Business Systems and their relationships with new venture phenomena are scarce. As we will discuss below, this study posits ways to overcome this limitation and allow for a fine-grained understanding of distinct NBS *gestalts* and their interactions with founder-level attributes.

### **3.2 Individual-level Antecedents of New Venture Internationalization**

The inclusion of individual- or firm-level factors is important because, as Whitley (1999) and other institutional scholars have argued, there are interdependencies between institutional system attributes and the capabilities that firms and individuals develop (e.g., Martin, 2014). Human capital – the knowledge, experience, education, and skills of individuals – is one of the most important predictors of entrepreneurial activities and outcomes (Unger, Rauch, Frese, & Rosenbusch, 2011). In addition to NBS dimensions, our analysis includes two vital factors of founders’ human capital that are demonstrated influencers of internationalization: general human capital and entrepreneurial self-efficacy. These two causal factors reflect critical stocks of human capital for international entrepreneurs, covering both their generic knowledge/skills (general human capital) as well as their specific skills and aptitude for entrepreneurship (entrepreneurial self-efficacy; Terjesen et al., 2016).

**3.2.1 General human capital.** General human capital represents the generic knowledge and experience of individuals, such as education level (Unger et al., 2011). General human

capital is a critical driver of opportunity recognition, in that prior knowledge or experience can aid in the spotting and evaluation of potential opportunities (Ardichvili, Cardozo, & Ray, 2003; Shane, 2000). Without some level of general human capital, the identification of an opportunity and subsequent formation of a new venture is less likely. Moreover, after business formation, general human capital also provides management skills to help run and grow the organization (Corbett, 2007; Unger et al., 2011). For example, the general human capital qualifications of the founders is among the most important factors when external financiers consider investing in a new venture (Delmar & Shane, 2006; Sandberg & Hofer, 1987).

In the international new venture context, the general human capital of founders is especially important. The identification and exploitation of international opportunities is often more complex than domestic opportunities, requiring greater analytical skill that is usually gained by formal education (Karra, Phillips, & Tracey, 2008). Additionally, a higher level of formal education makes founders more likely to look to foreign countries for sales, as well as manage those sales (Kundu & Katz, 2003). In sum, the internationalization of new ventures is less likely to be successful without general human capital.

However, this statement may not hold in all national contexts. For example, undeveloped educational systems may force international entrepreneurs in emerging economies to rely more on their personal traits and informal experience rather than technical expertise that could be gained from years of schooling (Kiss et al., 2012). Similarly, in developed economies, general human capital may have diminishing returns on venture growth (Hsu, 2007), such as international expansion. Therefore, though it is an important antecedent of new venture internationalization, the precise causal direction of general human capital's influence on the extent of internationalization is likely to vary depending on the institutional environment.

*Proposition 5: Founders' level of general human capital will significantly influence the extent of new venture internationalization.*

**3.2.2 Entrepreneurial self-efficacy.** Entrepreneurial self-efficacy represents individuals' belief that they can successfully manage a business (Chen et al., 1998). In contrast to the broader skillset provided by general human capital, founders with entrepreneurial self-efficacy tend to have higher performance in the firms they launch because they have the particular set of skills needed to begin and grow a new organization (Hmieleski & Baron, 2008).

Regarding internationalization, founders with entrepreneurial self-efficacy may be more likely to recognize international opportunities (Zahra, Korri, & Yu, 2005) and have the appetite for risk to attempt to exploit such opportunities (Peiris, Akoorie, & Sinha, 2012). That is, whereas general human capital provides the broad skills needed for internationalization, entrepreneurial self-efficacy gives founders the confidence to expand abroad. Put differently, when founders have general human capital, there is *potential* for internationalization, but possessing self-efficacy helps make this potential *actionable* and *realizable* because such founders have a strong belief in their general human capital and entrepreneurial capabilities, and will act upon it (Peiris et al., 2012).

Despite the general positive influence of entrepreneurial self-efficacy, it is unknown precisely how it might affect the extent of internationalization in different national contexts and how it might interact with institutional characteristics. For example, entrepreneurs' personal attributes are thought to matter more in emerging economies, where institutions that support entrepreneurship are often lacking (Kiss et al., 2012). Yet, such entrepreneurial traits are not as common in collectivist cultures as individualistic cultures (Mueller & Thomas, 2001). Thus, the

founder's entrepreneurial self-efficacy will affect the extent of internationalization, but the exact relationship may vary based on national context.

*Proposition 6: Founders' level of entrepreneurial self-efficacy will influence the extent of new venture internationalization.*

#### **4. METHOD**

The individual-level human capital factors are expected to interact with NBS attributes in important and context-specific ways. For example, a basic level of general human capital can help founders understand how to go about starting a business in certain regulatory environments (Tsang, 1996). Similarly, demonstrable entrepreneurial self-efficacy and general human capital can help founders receive funding from the financial system (Kickul, Gundry, Barbosa, & Whitcanack, 2009). The skill development system in a country helps founders gain the knowledge and skills needed to start and run ventures (Gorman, Hanlon, & King, 1997), and these knowledge and skills can be helpful for navigating uncertain business environments (Tonoyan et al., 2010).

Yet, it remains unknown when and how institutional attributes might matter more (or less) as well as when and how founder attributes might matter more (or less). In short, the nexus of founder human capital and national business systems remains unclear because only a few institutional-founder relationships have been explored, and there may be complementary and/or substitution effects among institutions and founder capabilities. For example, the instability or poor quality of home-country regulations means founder human capital is even more critical in emerging-economies than developed economies (Kiss et al., 2012). At the same time, the lack of quality skill development systems in emerging economies may mean founders must rely on more informal sources of human capital (Bruton, Ahlstrom, & Puky, 2009). Moreover, these



interactions will likely differ significantly in emerging and developed economies due to the divergence of the internationalization process in these two types of countries, influenced by the great differences in NBS factors. For example, businesses evolve quite differently in emerging economies to make up for institutional voids (Khanna & Palepu, 2000).

In sum, the interactions of NBS and founder attributes are likely to be complex and non-linear, as well as highly dependent on the emerging- or developed-economy context. Therefore, we utilize an analytic technique uniquely suited to address the complex causality of new venture internationalization: fuzzy-set Qualitative Comparative Analysis (fsQCA).

#### **4.1 Fuzzy-Set Qualitative Comparative Analysis**

The dominant methodological paradigm of variance-based techniques is well-suited for parceling out the net effects of individual variables while holding others constant, but is less useful for understanding the specific contingencies and nonlinear complementarities regarding when certain causal factors matter as part of a holistic gestalt. This issue is especially pronounced in comparative studies of institutions: “. . . the variable-based approach. . . neglects the potential for interactions among these different institutional dimensions that give rise not just to differences of degree, but to fundamental differences in kind, where the impact of one institution may depend very much on the presence or absence of particular other institutions. . .” (Jackson & Deeg, 2008: 545). The inclusion of founder human capital adds to this complexity, as certain skills may be more or less important depending on the institutional context (e.g., Tonoyan et al., 2010). The use of fsQCA addresses this shortcoming.

FsQCA is a set-theoretic approach to data analysis rooted in the works of Charles Ragin (e.g., 2008). The essential assumptions of this methodology are that casual conditions can interact in complex, nonlinear ways to produce a given outcome, and that equifinality exists.

Equifinality connotes multiple configurations of causal conditions can lead to the same outcome (Fiss, 2007; Ragin, 2008). Additionally, cases are viewed based on their membership in configurations of sets of causal conditions and outcomes (Fiss, 2007). Cases are assigned membership scores in sets of causal conditions as well as in the set of the outcome in question.

FsQCA is both an inductive and deductive technique (Ragin, 2008). It is inductive in that the researcher need not test for specific relationships. Rather, analysis of available empirical data reveals different configurations of causal factors that lead to the outcome being investigated. However, it is deductive because the researcher must specify *a priori* which causal factors should affect the outcome. That is, fsQCA is somewhat exploratory in that it allows for interactions among all causal factors, but these causal factors must have an established theoretical relationship with the outcome in question; pure induction is not possible. However, fsQCA is an ideal method when the important causal factors of an outcome are clearly known, but all possible relationships among causal factors are not. Additionally, fsQCA is useful for testing complex configurations of causal factors and *conjunctural causation*, wherein causal mechanisms of factors are highly dependent on the presence or absence of other causal factors, as is the case for NBS and founder human capital attributes.

The fsQCA method is both qualitative and quantitative because it utilizes calibrated, quantitative measures (based on qualitative anchors) to assign cases based on their degree of membership in sets of *causal conditions*, which are akin to independent variables, and *outcomes*, which are analogous to dependent variables (Ragin, 2008). Whereas measured variables indicate the relative differences among cases, calibrated measures qualitatively indicate whether and to what extent the cases fit with the theoretical definition of the causal condition or outcome (Ragin, 2006).

As we will explain in greater detail below, the measures of NBS, founder human capital, and new venture internationalization are calibrated to represent membership in a set, where 1 denotes full membership, 0 denotes full non-membership, and ranges in between 0 and 1 denote degrees of membership (Ragin, 2008). When calibrating, theory-based anchors are inputted to reflect the cut-off points in the un-calibrated data which represent full membership and full non-membership. When such anchor points are unavailable, more inductive modes of calibration, such as quartile splitting and inflection points, may be used (Crilly, 2011; Fiss, 2007). Additionally, a crossover point that represents the maximum ambiguity regarding membership or non-membership may be inputted, when applicable (Ragin, 2008).

Based on these membership scores, the fsQCA 2.5 software identifies which causal conditions are present for a given outcome. Then, a Boolean algebraic algorithm is used to minimize the number of configurations of causal conditions and reveal a solution indicating the distinct path(s) leading to the outcome. The minimization process also reduces the number of causal conditions in each configuration using logical minimization, resulting in the essential ingredients for each causal recipe.

These results allow researchers to make inferences of necessity and sufficiency (Ragin, 2008). According to Ragin (2010), a necessary condition must be present (in conjunction with other conditions) for a given outcome to occur, whereas a condition is sufficient if it can produce a given outcome by itself. A condition is both necessary and sufficient if it is the singular condition that can produce a given outcome. Hence, a condition is sufficient but not necessary if it can produce a given outcome by itself, but is not the only condition that can do so. A condition is necessary but not sufficient if it is almost always needed for an outcome to occur, but other conditions are needed as well. Lastly, a condition is neither necessary nor sufficient if it only

appears in a subset of the combinations of causal conditions that produce a given outcome. In the following two analyses, we tested for the necessity and sufficiency of combinations of NBS attributes and founder human capital, and their effect on the extent of new venture internationalization.

## **4.2 Sample**

The sample was drawn from the 2011 Global Entrepreneurship Monitor (GEM) individual and national expert surveys. GEM administers a yearly cross-country collection of data on new venture founders within many countries, as well as a survey of national experts regarding their opinion of the entrepreneurial and economic climate within their home countries. The GEM data has been widely used in comparative entrepreneurship research (e.g., Bowen & De Clercq, 2008; Kim & Li, 2014; McMullen et al., 2008; Valdez & Richardson, 2013), but previous research has generally focused on individual-level analysis and sought to determine linear causal relationships.

The data for this study includes 240 new ventures from 16 emerging economies and 219 new ventures from 15 developed economies (a list of home countries is displayed in Table 1.1). To arrive at this sample, we first identified new ventures that were no more than 10 years old (Knight & Cavusgil, 2005; Yamakawa et al., 2013) and had at least some international commitment (i.e., founders indicated that at least one percent of customers lived in another country). Purely domestic new ventures were not included in the sample because there was no way of determining whether the founders had an international orientation (Oviatt & McDougall, 1994). Additionally, to control for the effects of founders' characteristics, and isolate the effects of each form of human capital, only ventures with a single founder were included. Finally, ventures that may have changed ownership since inception were screened out using an item from

the GEM questionnaire indicating that the current founder as of the 2011 survey had started the business.

-----  
**Insert Table 1.1 about here**  
-----

Next, country-level data from the national expert survey was matched to the new ventures in the sample based on their home country. Some countries had data available from individual founders but not from national experts and vice versa; therefore, data on both founders and national institutions had to be available for inclusion in the sample, because fsQCA is a case-oriented approach with no means of dealing with missing data (Ragin, 2008). Emerging-economy status was determined using the International Monetary Fund's list of emerging economies (George & Prabhu, 2000; Yamakawa et al., 2013). Finally, any firms with missing data on any of the measures were removed, as fsQCA cannot analyze cases with any missing data.

### **4.3 Measures**

**4.3.1 Extent of internationalization.** The *extent of internationalization* was the outcome of interest, captured using export intensity. As discussed, exporting is the most common form of international entry for young firms, as well as the dominant metric used in studies of international new ventures (e.g., Knight & Cavusgil, 2005; Kuivalainen et al., 2007; Kundu & Katz, 2003). Moreover, export intensity is closely related to other international activities of new ventures, such as international environmental scanning (McDougall, 1989), and a successful export program is often the culmination of years of work and planning within the venture (Zahra, Neubaum, & Huse, 1997).

To control for the important effect of firm size on internationalization (Knight & Cavusgil, 2005; Kuivalainen et al., 2007; Kundu & Katz, 2003), we followed the method developed by Jackson and Ni (2013) for accounting for control variables in fsQCA. First, we ran an ordinary least squares regression with firm size (number of employees) as the independent variable and export intensity as the dependent variable. Results indicated that firm size showed a positive, statistically significant relationship with export intensity.

Next, the resulting residuals for each firm were used as the basis for the outcome, reflecting the extent of internationalization that was unexplained by the control of firm size. Finally, these residuals were calibrated inductively based on inflection points in the data (Crilly, 2011). These inflection points varied slightly between emerging- and developed-economy new ventures, but generally followed the same pattern: new ventures that were well above their predicted internationalization based on the residuals from the regression model were considered fully in, those near their predicted value were neither in nor out, and those well below their predicted value were fully out. Finally, the calibration function in the fsQCA 2.5 software was used to calibrate these continuous variables using these anchor points.

**4.3.2 National-level state.** We operationalized the country-level NBS attributes primarily using national-level data from GEM. First, the operationalization of the strength of *the state* reflected the average of nine Likert-scale questions from the 2011 national-level GEM country expert survey regarding the quality of regulations for protecting intellectual property rights, as well as the simplicity and ease of starting a business and paying taxes. This measure has been verified for validity and reliability by Bowen and De Clercq (2008).

This measure was calibrated using a quartile-splitting method (Judge et al., 2014) and the fsQCA software's calibration function. That is, the top quartile, bottom quartile, and median

values of this NBS dimension were calculated. Next, these values were inputted as the anchor points in the software for full membership, full non-membership, and the crossover point, respectively. The calibration function then calculated the membership scores of this continuous variable for each case (in this case, country) by determining the logarithmic odds of that case's falling within the ranges determined by the anchor points, resulting in calibrated membership scores ranging from 0 to 1. This process was done separately for the emerging- and developed-economy samples to reflect the relative differences within each group. Put differently, scores on this NBS dimension for emerging economies are relative to other emerging economies, and scores for developed economies are relative to other developed economies.

**4.3.3 National-level financial system.** At the country level, the measure of the *financial system* was the average of six Likert-scale questions from the 2011 GEM country expert survey indicating opportunities for private equity and other sources of funding for new ventures. This measure has also been verified for validity and reliability by Bowen and De Clercq (2008), and was calibrated via separate quartile splitting for both emerging and developed nations.

**4.3.4 National-level skill development system.** The measure of the *skill development system* for each country was created by averaging three questions from the 2011 GEM country expert survey that assessed the quality of the education system in regards to providing individuals with requisite entrepreneurial skills and knowledge. This measure was verified for validity and reliability by Bowen and De Clercq (2008). Quartile splitting was used to calibrate the data within both the emerging- and developed-country subsamples.

**4.3.5 National-level trust.** Finally, the NBS dimension of *trust* was measured using the established proxy of corruption based on Transparency International's Corruption Perceptions Index (Judge, Fainshmidt, & Brown III, 2014), which has been shown to be the most valid

measure of national-level corruption (Judge, McNatt, & Xu, 2011). From Transparency International's website, we accessed index scores from the year 2011 to be consistent with the measures from the GEM national expert survey. This measure was calibrated using quartile splitting within both the emerging- and developed-country subsamples.

**4.3.6 Founder-level general human capital.** At the individual level of analysis, two measures of founder human capital relevant to international entrepreneurship (as discussed above) were used. First, *general human capital* represents an individuals' general level of knowledge, usually operationalized as educational attainment (Cooper et al., 1994; Davidsson & Honig, 2003). For this study, general human capital was measured using an item from the GEM individual survey capturing educational attainment, standardized to reflect the United States educational system and calibrated as follows: 0 = less than secondary degree; 0.33 = secondary (i.e., high school) degree; 0.66 = bachelor degree; 1 = graduate degree. Having a college or graduate degree represents a key measure of ability for new venture founders (Kundu & Katz, 2003), and is therefore a logical crossover point for calibration. That is, there is a significant qualitative difference in having at least a college degree and not having one for the purposes of explaining new venture internationalization.

**4.3.7 Founder-level entrepreneurial self-efficacy.** The second measure at the individual level was *entrepreneurial self-efficacy*, indicating individuals' belief that they have the skills and knowledge to operate a new venture successfully (Chen et al., 1998). This construct was operationalized using a dichotomous measure from the GEM individual survey indicating founders' belief that they have the skills to run a successful business (1 = yes, 0 = no). Given the lack of strong educational systems within emerging economies especially, such skills and abilities are critical for venture founders (Kiss et al., 2012).



Descriptive statistics of all variables (before calibration and sample-splitting) are displayed in Table 1.2. As expected, whether a new venture originated in a developed or emerging economy was significantly related to export intensity. Emerging economies were coded as a 1, indicating firms in such places tended to export less than firms in developed countries. Additionally, t-test results showed a statistically significant difference in export intensity between emerging and developed economies, providing further justification for splitting the sample to control for these effects in fsQCA.

-----  
**Insert Table 1.2 about here**  
 -----

## **5. EMPIRICAL RESULTS**

### **5.1 Test of Necessity**

The first test using fsQCA involves determining which, if any, individual conditions are necessary for a given outcome. We ran a probabilistic test using the fsQCA 2.5 software, and display the consistency and coverage scores for each of the causal conditions. These measures range from 0 to 1. Consistency measures the degree to which the outcome is a subset of the causal condition, or how often the causal condition is present whenever the outcome is present. A consistency score of 0.90 or higher suggests necessity, indicating a causal condition is almost always needed for the outcome to occur (Schneider & Wagemann, 2013). Coverage reflects the proportion of cases where the causal condition is present, and is only assessed after establishing a high level of consistency. A low coverage score in a test of necessary conditions indicates a trivial or very distal causal condition (Ragin, 2008). Table 1.3 displays the results of the tests for necessary conditions for emerging- and developed-economy new venture extent of

internationalization, indicating that no single causal condition is necessary for high levels of internationalization.

-----  
**Insert Table 1.3 about here**  
-----

## 5.2 Test of Sufficiency

The next step in fsQCA is to analyze the “truth table” to test for the sufficiency of individual causal conditions or configurations of causal conditions. The truth table shows all possible configurations of the causal conditions that lead to the outcome, and it is filled in by distributing the observed cases to each unique possible configuration. This distribution of cases is determined by which configuration each case most belongs to; although a case may have degrees of membership in multiple configurations, there is only one configuration where it has a maximum membership score (Ragin, 2008). Utilizing the fsQCA 2.5 software, we assessed how consistently each configuration was associated with the outcome. Finally, Boolean logic was used in a minimization analysis to simplify the configurations, eliminating logical redundancies and revealing the core factors in each configuration that led to the outcome.

For the following analyses, we required that each configuration must have at least one case to be included in the minimization analysis; Thus, possible configurations that have no actual cases in the data are not included in the truth table analysis. As in the test of necessary conditions, the truth table reports consistency and coverage scores; however, unlike in the test of necessity, these scores are associated with each *configuration* of causal conditions rather than individual causal conditions. When testing for sufficiency, consistency reflects how often the outcome is present when the configuration is present; put differently, it indicates how consistently a configuration leads to an outcome. Consistency scores above 0.90 are excellent, while those above 0.80 are acceptable (Ragin, 2008). To run the truth table analysis and

determine the paths to the outcome in question, the researcher must decide on a minimally acceptable consistency score indicating those configurations that are highly relevant for predicting the outcome. We required consistency scores of at least 0.80 for both samples as a recommended, stringent threshold (Ragin, 2008; Schneider & Wagemann, 2013).

Additionally, we required PRI consistency scores of at least 0.70 for configurations. A PRI consistency score assesses how often a given configuration leads to the *absence* (presence) of the outcome in question, and applies a corresponding penalty (Ragin, 2010). Put differently, even if a regular or “raw” consistency score is high, indicating a consistent relationship between the configuration and the presence of outcome, the same configuration could also be related to the absence of the outcome, attenuating the importance of the configuration for explaining the outcome. A low PRI score captures this inconsistency, indicating a configuration’s relationship to the outcome may be due to chance. Including a PRI consistency threshold for configurations when conducting the truth table analysis is therefore a means of ensuring robust fsQCA results (Misangyi & Acharya, 2014).

The results of the sufficiency analysis are displayed in Table 1.4. Just as each configuration has a consistency and coverage score, each solution has a consistency and coverage score to indicate how well the collection of configurations explains the variance in the outcome. There were three distinct configurations for a high degree of new venture internationalization in emerging economies and five unique pathways in developed economies, indicating that new venture internationalization is a very equifinal process. Solution consistency scores, which assess the adequacy of the entire set of configurations in the solution, are well above the minimum benchmark of 0.75 and at or above the benchmark of 0.85 for very good fit (Ragin, 2008; Schneider & Wagemann, 2013). Solution coverage scores for the samples of

developed- and emerging-economy new ventures indicated the set of solutions explained about 57% and 34% of the observed variance in the extant of new venture internationalization, respectively.

Consistent with recently published studies using the fsQCA method (Bell, Filatotchev, & Aguilera, 2014; Misangyi & Acharya, 2014), the symbol “●” indicates a causal condition’s presence in the configuration, the symbol “⊗” indicates its absence, and a blank cell indicates the presence or absence of the condition was irrelevant in that configuration. Moreover, each configuration has a consistency, raw coverage, and unique coverage score associated with it. Raw coverage indicates how much variation of the outcome is covered by a single path, including overlap with other paths; unique coverage, on the other hand, represents the portion of the outcome covered by a path that does not overlap with other paths (Ragin, 2008; Schneider & Wagemann, 2013).

Interpreting the results, each configuration leading to a high degree of new venture internationalization for emerging economies included the *absence* of a strong financial system; for developed economies, each configuration contained the presence of a strong state. Although these conditions were, by themselves, not necessary, they appear to be important, but only when other conditions are present as well. In emerging economies, the role of the state and trust appear to be interchangeable when founders possessed entrepreneurial self-efficacy, indicated by configurations EE1 and EE2, where whenever the state or trust is present, the other is irrelevant. However, the most common and consistent path to high degrees of new venture internationalization in emerging economies was configuration EE3, where strong financial system was absent, state regulations were of high quality, trust was high, and founders possessed general human capital.

Turning attention to developed-economy new ventures, the state was important, but only in conjunction with other causal factors. Consider two of the most common (and very consistent) paths to high degrees of new venture internationalization, configurations DE4 and DE5. Here, the state influences internationalization when coupled with a strong skill development system and founder entrepreneurial self-efficacy. However, when these conditions are met, the presence of trust or a strong financial system may be interchangeable, as evidenced in configurations DE1, DE2, DE4, and DE5. In these configurations, the presence of either a strong financial system or high levels of trust appears to make the presence of the other irrelevant.

Finally, in configuration DE3, a financial system, the state, and trust are all present, but a skill development system is absent. At the firm level, founders had general human capital but not entrepreneurial self-efficacy. The lack of a skill development system for entrepreneurship may make it difficult for founders to gain entrepreneurial skills, but new ventures can make up for these deficiencies and achieve a high degree of internationalization if founders are highly educated and the other NBS dimensions are present. That is, the combination of these attributes is sufficient for a high degree of new venture internationalization.

-----  
**Insert Table 1.4 about here**  
 -----

### **5.3 Robustness Check**

To ensure robust results, we combined both the developed- and emerging-economy samples and calibrated the causal conditions based on the entire sample, rather than calibrating them separately. The resulting analysis yielded a similar number and type of configurations as those in the preceding analyses. However, an analysis combining developed and emerging economies is empirically problematic. As noted, there was a statistically significant difference between the extent of new venture internationalization and whether the firm originated in an

emerging or developed home country. Calibration of a combined sample risks washing out these differences. Indeed, using similar parameters in the test for sufficiency as our main analyses resulted in only about 70 cases' exhibiting a configuration of causal factors that consistently led to a high extent of internationalization – less than a quarter of the total sample. Such a problem may indicate an inadequate calibration scheme (Ragin, 2008). Splitting the samples and calibrating them separately resulted in about half of the sampled firms being included as consistent cases of a high extent of internationalization, indicating a superior approach to calibration that incorporates the important differences in business systems between emerging and developed nations, which are to be expected based on scholarly knowledge of doing business in emerging economies (Meyer & Peng, 2016).

## 6. DISCUSSION

In this investigation, we set out to test which configurations of NBS dimensions and founder capabilities led to a high extent of new venture internationalization in emerging and developed economies. We believe our study makes several contributions to the field of comparative international entrepreneurship. First, it provides important insights regarding the *contingencies* of when and how certain country-level institutions matter, which has been notably missing from comparative international entrepreneurship research (Lim et al., 2010). Specifically, it uncovers the role of undeveloped financial systems in emerging countries and the state in developed countries as important (but singly insufficient) components within business system configurations that lead to increased new venture internationalization.

Second, it focuses on the nexus of firms and institutions, highlighting how founders of new ventures interact with these institutions (Bruton et al., 2008). Specifically, our results highlight the substitutability of forms of founder human capital, showing how different

configurations of business systems place different demands on founders' general human capital or entrepreneurial self-efficacy. Next, we discuss these contributions in more detail and provide practical implications for new venture founders and policy makers.

### **6.1 Theoretical Implications**

Our first broad finding is that achieving a high extent of new venture internationalization differs significantly across emerging and developed economies, though in some instances, emerging-economy paths to internationalization materialized in a develop-economy context. The application of fsQCA sheds light on the complex and interdependent role of institutions, demonstrating precisely when they matter for the extent of new venture internationalization, and helping explain why previous studies of country-level institutions and entrepreneurship have had contradictory results. For example, the role of the state in fostering entrepreneurship could either be critical (Gohmann, 2012; Lim et al., 2010), somewhat important but less so than other factors (Valdez & Richardson, 2013), non-significant (Bowen & De Clercq, 2008), or perhaps even detrimental (Kim & Li, 2014). Next, we discuss the specific configurations in emerging and developed economies, detailing when institutions like the state matter, and how they interact with founder-level human capital, in regards to new venture internationalization.

For emerging-economy new ventures, the absence of a strong financial system to influence a high extent of new venture internationalization is consistent with the idea that firms may internationalize out of such countries in order to “escape” poor home-country institutions (Cuervo-Cazurra, Narula, & Un, 2015; Witt & Lewin, 2007). Our findings show that undeveloped *financial systems* in particular may be a key motivation for emerging-economy new ventures to seek ever greater foreign sales. That is, the lack of financing options available to new ventures may lead them to seek growth from foreign sales as a substitute for financial capital

backing in the home country. This finding may be the first to explicitly show that a weak country-level institution motivates entrepreneurs to internationalize. Additionally, it may point to ability of entrepreneurs in emerging economies to “do more with less” (Contractor, 2013), or turn an apparent disadvantage into an advantage (Cuervo-Cazurra & Genc, 2008). As such, scholars of international entrepreneurship should investigate these abilities on the part of emerging-economy entrepreneurs, and how they may contribute to important venture outcomes.

Although the findings show that a strong financial system was absent in each configuration leading to a high extent of emerging-economy new venture internationalization, this institutional aspect alone was neither necessary nor sufficient. That is, other parts of the business system combined with the absence of a financial system to influence new venture internationalization in emerging economies. Moreover, unlike financial systems, these institutions were present, demonstrating that although emerging-economy new venture may internationalize to escape undeveloped institutions, some critical institutions must be present to facilitate a high extent of internationalization. Put differently, our analysis revealed no scenarios where all or many key institutions were lacking and new ventures still exhibited a high degree of internationalization.

We show that national institutions almost always work in tandem to affect new venture internationalization, suggesting that future research of comparative international entrepreneurship should account for the configurational nature of national institutions, rather than only considering the net effects of single institutions. In other words, our findings challenge the notion that national institutions are independent from one another when used for predicting entrepreneurial activities within a country, which is an implicit assumption in previous, parametric-based studies using regression and other linear techniques. Moving forward, we



suggest scholars operate under the assumption that national institutions are highly interrelated, and create and test theory accordingly.

This dynamic is apparent in our results. Specifically, at least trust (configuration EE1 in Table 4, exemplified by Croatia) or, more commonly, a strong state coupled with either a skill development system or trust (configurations EE2 and EE3, exemplified by Mexico and Latvia, respectively) was present when emerging-economy new ventures internationalized to a high degree. The configuration of a strong state and trust likely leads to high degrees of new venture internationalization because when a strong state is present in emerging economies, trust provides an additional assurance that entrepreneurs can actually *access* such legal protections (Kim & Li, 2014). However, our results show that a skill development system and trust may be *substitutable* when a strong state is present. Better skill development systems enhance entrepreneurial activity (Bowen & De Clercq, 2008), perhaps lessening founders' fears regarding potential losses stemming from corruption, as any losses could be more easily made up. For example, Mexico lacks a well-developed system for financing new ventures, leading them to seek funding from overseas investors; yet, the country has a relatively strong educational system as well as increasingly better state regulations (Durham, 2015), supporting new venture internationalization despite its very high corruption rate (Transparency International, 2016).

In developed economies, a parallel trend emerged. Relatively strong states were present in all configurations leading to high degrees of new venture internationalization. Yet, it was not a necessary or a sufficient condition, indicating that additional institutions were needed to facilitate a high extent of internationalization. Typically, complementary institutions consisted of a skill development and financial system; however, like in emerging economies, a skill development system and trust appeared substitutable when states and financial systems were strong

(configurations DE2 and DE3). However, a skill development system was present in the two most common configurations (DE4 and DE5), suggesting that a high extent of new venture internationalization in developed economies appears to be consistent with the more “traditional” path to internationalization, whereby firms develop unique products or services and then seek to exploit them in foreign markets (Dunning, 1980). Skill development systems foster needed human capital to innovate and create sources of competitive advantage, with funding coming from the financial system. A strong state ensures these advantages will not be illegally expropriated. In sum, our findings highlight the central role a strong state plays in positively influencing new venture internationalization, contingent upon the presence of other supporting institutions. In contrast to previous studies that have shown no effect (e.g., Bowen & De Clercq, 2008) or a negative effect (e.g., Kim & Li, 2014), we show that government regulations *do* positively affect entrepreneurial activities, such as internationalization, but only when other critical institutions are present as well.

Interestingly, in some instances, home-country business systems may also “push” new ventures to internationalize out of developed economies. For example, in configuration DE1 (exemplified by the United Kingdom), a strong financial system for entrepreneurship relative to other developed nations was lacking, similar to the configurations for emerging economies, perhaps motivating new ventures to expand aggressively into foreign markets to acquire more financial capital. In configuration DE2 (exemplified by Taiwan), trust was low. Founders may have been motivated to internationalize to a high extent in order to escape corrupt home-country conditions. Hence, institutional voids may “push” new ventures to internationalize out of developing economies as well as emerging economies (Witt & Lewin, 2007).

In both emerging economies and developed economies, some form of founder human capital – either general human capital or entrepreneurial self-efficacy – was present in all configurations leading to a high extent of internationalization. Yet, neither form of human capital alone was necessary or sufficient, as certain NBS attributes were also present. Consistent with the proposition that founder abilities may be more important than some macro-level factors for emerging-economy new ventures (Kiss et al., 2012), founder human capital and the presence of only one or two NBS dimensions was sufficient for a high degree of internationalization. In contrast, in developed economies, three of the four supportive institutions were present in all but one of the five configurations. Hence, new ventures originating from emerging economies may be less dependent on home-country institutions, whereas those originating from developed economies may be more reliant on home-country institutions, which can perhaps help supply new ventures with any needed human or financial capital. Such access may be limited in emerging economies, which, as we have shown, often lacked financial systems and sometimes lacked skill development systems as well.

Additionally, founder entrepreneurial self-efficacy appears to be closely related to the presence of skill development systems, especially in developed economies. In three of the four developed-economy configurations where founders had self-efficacy, a skill development system was also present; in the single configuration where skill development was absent, self-efficacy was also absent, and founders instead appeared to rely on their general human capital. New venture founders in developed economies appear to take advantage of skill development systems to nurture their own self-efficacy. For example, they may take advantage of educational opportunities specifically targeted at entrepreneurship. In emerging economies, this pattern is less pronounced; perhaps founders develop their self-efficacy through business experience rather

than formal training systems, which are often lacking in emerging economies (Hoskisson et al., 2000).

Interestingly, in every configuration, when one form of human capital was present, the other was absent, suggesting substitutability. Our findings point to configurational aspects of founder skills. Scholars of international entrepreneurship should consider founder *gestalts* of attributes, rather than treating individuals' characteristics as independent and separate.

Additionally, the patterns of human capital and certain institutions suggests that founders interact with the business systems in which they are embedded. That is, business systems may not be deterministic, rather entrepreneurs actively engage with the institutions around them (Thornton, Ocasio, & Lounsbury, 2012). Accordingly, future research could investigate more precisely how entrepreneurs leverage institutional aspects to enhance their international activities, especially for emerging-economy ventures, which are thought to combine both country- and firm- specific sources of competitive advantage (Sun et al., 2012).

## **6.2 Practical Implications**

There are numerous practical implications of this research for new venture founders and policy makers alike. First, current or aspiring new venture founders are advised to invest in either their general human capital or their entrepreneurial abilities, but perhaps not both. Along with the relevant NBS attributes, one form of human capital was sufficient for high levels of internationalization. It takes a great deal of time and energy to develop human capital (Aldrich & Martinez, 2001; Hsu, 2007), and the assumption that more is always better is a dangerous fallacy (Pierce & Aguinis, 2013). Therefore, founders are advised to invest in their human capital strategically. In emerging economies, where education systems may be lacking, potential new venture founders could seek experience at other start-ups to nurture their entrepreneurial abilities

and, eventually, start their own business. In developed economies, either formal education or start-up experience could be sought.

For policy makers in emerging economies who may wish to foster international entrepreneurship, it would be advisable to invest in anti-corruption efforts to promote trust as well as craft strong (but simple) regulatory regimes to promote the formation and internationalization of new ventures. Policy makers could also invest in skill development systems to mimic the paths to new venture internationalization in developed economies. Additionally, policy makers in emerging economies should be aware that the lack of a robust financial system may be driving ventures to seek overseas sales that may fuel growth. If policy makers wish to promote more domestic business, they could consider investing in a stronger financial system that provides funding opportunities for new ventures.

## **7. CONCLUSION**

We set out to test the role of NBS dimensions and founder human capital in supporting the extent of new venture internationalization in both emerging and developed economies. This phenomenon differed significantly across emerging and developed economies. In the former, the lack of robust financial systems may “push” new ventures to make overseas sales in order to fuel their growth, but only in conjunction with other stable institutions. In the latter, the state was a key component in all configurations with a high extent of new venture internationalization, but others were needed to complement it, particularly skill development and financial systems. Finally, some form of founder human capital was present in highly internationalized new ventures across both types of countries. From a practical perspective, new venture founders should invest strategically in their human capital, taking advantage of supportive institutional

dimensions that are available. Policy makers should invest in strengthening institutions that are important for the internationalization of new ventures.

## 8. REFERENCES: ESSAY 1

- Acs, Z. J., Morck, R., Shaver, J. M., & Yeung, B. 1997. The internationalization of small and medium-sized enterprises: A policy perspective. *Small Business Economics*, 9(1): 7-20.
- Aldrich, H. E., & Martinez, M. A. 2001. Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship. *Entrepreneurship Theory and Practice*, 25(4): 41-56.
- Alexander, G. J., Eun, C. S., & Janakiramanan, S. 1988. International listings and stock returns: Some empirical evidence. *Journal of Financial and Quantitative Analysis*, 23(02): 135-151.
- Anokhin, S., & Schulze, W. S. 2009. Entrepreneurship, innovation, and corruption. *Journal of Business Venturing*, 24(5): 465-476.
- Ardichvili, A., Cardozo, R., & Ray, S. 2003. A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1): 105-123.
- Autio, E., Sapienza, H. J., & Almeida, J. G. 2000. Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5): 909-924.
- Bell, R. G., Filatotchev, I., & Aguilera, R. V. 2014. Corporate governance and investors' perceptions of foreign IPO value: An institutional perspective. *Academy of Management Journal*, 57(1): 301-320.
- Bowen, H. P., & De Clercq, D. 2008. Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies*, 39(4): 747-767.

- Bruton, G. D., Ahlstrom, D., & Li, H. L. 2010. Institutional theory and entrepreneurship: Where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, 34(3): 421-440.
- Bruton, G. D., Ahlstrom, D., & Obloj, K. 2008. Entrepreneurship in emerging economies: Where are we today and where should the research go in the future. *Entrepreneurship Theory and Practice*, 32(1): 1-14.
- Bruton, G. D., Ahlstrom, D., & Puky, T. 2009. Institutional Differences and the Development of Entrepreneurial Ventures: A Comparison of the Venture Capital Industries in Latin America and Asia. *Journal of International Business Studies*, 40(5): 762-778.
- Busenitz, L. W., Gomez, C., & Spencer, J. W. 2000. Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43(5): 994-1003.
- Chandra, Y., Styles, C., & Wilkinson, I. 2009. The recognition of first time international entrepreneurial opportunities: Evidence from firms in knowledge-based industries. *International Marketing Review*, 26(1): 30-61.
- Chen, C. C., Greene, P. G., & Crick, A. 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4): 295-316.
- Contractor, F. J. 2013. "Punching above their weight." The sources of competitive advantage for emerging market multinationals. *International Journal of Emerging Markets*, 8(4): 304-328.
- Contractor, F. J., & Kundu, S. 2004. The role of export-driven entrepreneurship in economic development: A comparison of software exports from India, China, and Taiwan. *Technological Forecasting and Social Change*, 71(8): 799-822.



- Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. 1994. Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9(5): 371-395.
- Corbett, A. C. 2007. Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of Business Venturing*, 22(1): 97-118.
- Crilly, D. 2011. Predicting stakeholder orientation in the multinational enterprise: A mid-range theory. *Journal of International Business Studies*, 42(5): 694-717.
- Cuervo-Cazurra, A., & Genc, M. 2008. Transforming disadvantages into advantages: developing-country MNEs in the least developed countries. *Journal of International Business Studies*, 39(6): 957-979.
- Cuervo-Cazurra, A., Narula, R., & Un, C. A. 2015. Internationalization motives: Sell more, buy better, upgrade and escape. *The Multinational Business Review*, 23(1): 25-35.
- Davidsson, P., & Honig, B. 2003. The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3): 301-331.
- Delmar, F., & Shane, S. 2006. Does experience matter? The effect of founding team experience on the survival and sales of newly founded ventures. *Strategic Organization*, 4(3): 215-247.
- Dunning, J. H. 1980. Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, 11(1): 9-31.
- Durham, K. 2015. Why Amazon And Entrepreneurs Are Bullish On Mexico. *TechCrunch*. <https://techcrunch.com/2015/07/24/mexico-is-the-land-of-emerging-entrepreneurs-and-opportunities/>. Accessed September 8, 2016.

- Engelen, A., Heinemann, F., & Brettel, M. 2009. Cross-cultural entrepreneurship research: Current status and framework for future studies. *Journal of International Entrepreneurship*, 7(3): 163-189.
- Fiss, P. C. 2007. A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4): 1180-1198.
- Fok, E., & Advani, S. 2016. The perils of not protecting intellectual property for new ventures. *India Times*. <http://tech.economictimes.indiatimes.com/news/technology/protecting-intellectual-property-for-new-ventures/46629871>. Accessed December 19, 2016.
- Furman, J. L., Porter, M. E., & Stern, S. 2002. The determinants of national innovative capacity. *Research Policy*, 31(6): 899-933.
- Gartner, W. B., Shaver, K. G., Gatewood, E., & Katz, J. A. 1994. Finding the entrepreneur in entrepreneurship. *Entrepreneurship Theory and Practice*, 18(3): 5-10.
- George, G., & Prabhu, G. N. 2000. Developmental financial institutions as catalysts of entrepreneurship in emerging economies. *Academy of Management Review*, 25(3): 620-629.
- Gilbert, B. A., McDougall, P. P., & Audretsch, D. B. 2006. New venture growth: A review and extension. *Journal of Management*, 32(6): 926-950.
- Global Entrepreneurship Monitor. 2016. 2015/16 Global Report.
- Gohmann, S. F. 2012. Institutions, latent entrepreneurship, and Self-Employment: An international comparison. *Entrepreneurship Theory and Practice*, 36(2): 295-321.
- Gompers, P. A. 1995. Optimal investment, monitoring, and the staging of venture capital. *The Journal of Finance*, 50(5): 1461-1489.

- Gorman, G., Hanlon, D., & King, W. 1997. Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International Small Business Journal*, 15(3): 56-77.
- Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M., & Chittoor, R. 2010. Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms. *Journal of International Business Studies*, 41(3): 397-418.
- Guillén, M. F., & García-Canal, E. 2009. The American model of the multinational firm and the “new” multinationals from emerging economies. *Academy of Management Perspectives*, 23(2): 23-35.
- Hmieleski, K. M., & Baron, R. A. 2008. When does entrepreneurial self-efficacy enhance versus reduce firm performance? *Strategic Entrepreneurship Journal*, 2(1): 57-72.
- Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. 2000. Strategy in emerging economies. *Academy of Management Journal*, 43(3): 249-267.
- Hoskisson, R. E., Wright, M., Filatotchev, I., & Peng, M. W. 2013. Emerging multinationals from mid-range economies: The influence of institutions and factor markets. *Journal of Management Studies*, 50(7): 1295-1321.
- Hsu, D. H. 2007. Experienced entrepreneurial founders, organizational capital, and venture capital funding. *Research Policy*, 36(5): 722-741.
- Inoue, C., Lazzarini, S., & Musacchio, A. 2013. Leviathan as a minority shareholder: Firm-level implications of equity purchases by the state. *Academy of Management Journal*, 56(6): 1775-1801.

- Jackson, G., & Deeg, R. 2008. Comparing capitalisms: Understanding institutional diversity and its implications for international business. *Journal of International Business Studies*, 39(4): 540-561.
- Jackson, G., & Ni, N. 2013. Understanding complementarities as organizational configurations: Using set theoretical methods. In P. C. Fiss, B. Cambré, & A. Marx (Eds.), *Configurational Theory and Methods in Organizational Research*, Vol. 38: 129-158. Bingley, UK: Emerald Group.
- Jain, S. C. 1989. Standardization of international marketing strategy: some research hypotheses. *The Journal of Marketing*, 53(1): 70-79.
- Johanson, J., & Vahlne, J.-E. 1977. The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1): 23-32.
- Jones, M. V., Coviello, N., & Tang, Y. K. 2011. International entrepreneurship research (1989–2009): A domain ontology and thematic analysis. *Journal of Business Venturing*, 26(6): 632-659.
- Judge, W. Q., Fainshmidt, S., & Brown III, J. L. 2014. Which model of capitalism best delivers both wealth and equality? *Journal of International Business Studies*, 45(4): 363-386.
- Judge, W. Q., McNatt, D. B., & Xu, W. 2011. The antecedents and effects of national corruption: A meta-analysis. *Journal of World Business*, 46(1): 93-103.
- Karra, N., Phillips, N., & Tracey, P. 2008. Building the born global firm: Developing entrepreneurial capabilities for international new venture success. *Long Range Planning*, 41(4): 440-458.

- Khanna, T., & Palepu, K. 2000. The future of business groups in emerging markets: Long-run evidence from Chile. *Academy of Management Journal*, 43(3): 268-285.
- Kickul, J., Gundry, L. K., Barbosa, S. D., & Whitcanack, L. 2009. Intuition versus analysis? Testing differential models of cognitive style on entrepreneurial self-efficacy and the new venture creation process. *Entrepreneurship Theory and Practice*, 33(2): 439-453.
- Kim, P. H., & Li, M. 2014. Seeking assurances when taking action: Legal systems, social trust, and starting businesses in emerging economies. *Organization Studies*, 35(3): 359-391.
- Kirca, A. H., Hult, G. T. M., Roth, K., Cavusgil, S. T., Perry, M. Z., Akdeniz, M. B., Deligonul, S. Z., Mena, J. A., Pollitte, W. A., & Hoppner, J. J. 2011. Firm-specific assets, multinationality, and financial performance: A meta-analytic review and theoretical integration. *Academy of Management Journal*, 54(1): 47-72.
- Kirzner, I. M. 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35(1): 60-85.
- Kiss, A. N., & Danis, W. M. 2008. Country institutional context, social networks, and new venture internationalization speed. *European Management Journal*, 26(6): 388-399.
- Kiss, A. N., Danis, W. M., & Cavusgil, S. T. 2012. International entrepreneurship research in emerging economies: A critical review and research agenda. *Journal of Business Venturing*, 27(2): 266-290.
- Knight, G. A., & Cavusgil, S. T. 2004. Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2): 124-141.
- Knight, G. A., & Cavusgil, S. T. 2005. A taxonomy of born-global firms. *Management International Review*, 45(3): 15-35.

- Kuivalainen, O., Sundqvist, S., & Servais, P. 2007. Firms' degree of born-globalness, international entrepreneurial orientation and export performance. *Journal of World Business*, 42(3): 253-267.
- Kundu, S. K., & Katz, J. A. 2003. Born-international SMEs: BI-level impacts of resources and intentions. *Small Business Economics*, 20(1): 25-47.
- Lim, D. S., Morse, E. A., Mitchell, R. K., & Seawright, K. K. 2010. Institutional environment and entrepreneurial cognitions: A comparative business systems perspective. *Entrepreneurship Theory and Practice*, 34(3): 491-516.
- Luo, Y., & Tung, R. L. 2007. International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4): 481-498.
- Mallon, M. R., & Fainshmidt, S. 2017. Assets of foreignness: A theoretical integration and agenda for future research. *Journal of International Management*, 23(1): 43-55.
- Mallon, M. R., Lanivich, S. E., & Klinger, R. L. 2016. The Right Stuff: Resources for New Venture Performance in the Start-up and Growth Stages. *Academy of Management Proceedings*, 2016(1), 10.5465/ambpp.2016.217.
- Martin, X. 2014. Institutional advantage. *Global Strategy Journal*, 4(1): 55-69.
- Mathews, J. A. 2006. Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management*, 23(1): 5-27.
- McDougall, P. P. 1989. International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing*, 4(6): 387-400.
- McDougall, P. P., Shane, S., & Oviatt, B. M. 1994. Explaining the formation of international new ventures: The limits of theories from international business research. *Journal of Business Venturing*, 9(6): 469-487.

- McMullen, J. S., Bagby, D., & Palich, L. E. 2008. Economic freedom and the motivation to engage in entrepreneurial action. *Entrepreneurship Theory and Practice*, 32(5): 875-895.
- Meyer, K. E., & Peng, M. W. 2016. Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 47(1): 3-22.
- Misangyi, V. F., & Acharya, A. G. 2014. Substitutes or complements? A configurational examination of corporate governance mechanisms. *Academy of Management Journal*, 57(6): 1681-1705.
- Mueller, S. L., & Thomas, A. S. 2001. Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing*, 16(1): 51-75.
- Nordman, E. R., & Melén, S. 2008. The impact of different kinds of knowledge for the internationalization process of Born Globals in the biotech business. *Journal of World Business*, 43(2): 171-185.
- North, D. C. 1990. *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- Oviatt, B. M., & McDougall, P. P. 1994. Toward a theory of international new ventures. *Journal of International Business Studies*, 25(1): 45-64.
- Oviatt, B. M., & McDougall, P. P. 1997. Challenges for internationalization process theory: The case of international new ventures. *Management International Review*, 37(2): 85-99.
- Oviatt, B. M., & McDougall, P. P. 2005. Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice*, 29(5): 537-554.

- Peiris, I. K., Akoorie, M. E., & Sinha, P. 2012. International entrepreneurship: A critical analysis of studies in the past two decades and future directions for research. *Journal of International Entrepreneurship*, 10(4): 279-324.
- Peng, M. W., Wang, D. Y., & Jiang, Y. 2008. An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, 39(5): 920-936.
- Pierce, J. R., & Aguinis, H. 2013. The too-much-of-a-good-thing effect in management. *Journal of Management*, 39(2): 313-338.
- Ragin, C. C. 2008. *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago: University Of Chicago Press.
- Ragin, C. C. 2010. User's guide to fuzzy-set/qualitative comparative analysis 2.0. Tucson, AZ: Department of Sociology, University of Arizona.
- Ramamurti, R. 2012. What is really different about emerging market multinationals? *Global Strategy Journal*, 2(1): 41-47.
- Redding, G. 2005. The thick description and comparison of societal systems of capitalism. *Journal of International Business Studies*, 36(2): 123-155.
- Sahlman, W. A. 1990. The structure and governance of venture-capital organizations. *Journal of Financial Economics*, 27(2): 473-521.
- Sandberg, W. R., & Hofer, C. W. 1987. Improving new venture performance: The role of strategy, industry structure, and the entrepreneur. *Journal of Business Venturing*, 2(1): 5-28.
- Schneider, C. Q., & Wagemann, C. 2013. *Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis*. New York: Cambridge University Press.



- Scott, W. R. 1995. *Institutions and organizations*. Thousand Oaks, CA: Sage.
- Shane, S. 2000. Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4): 448-469.
- Sobel, R. S. 2008. Testing Baumol: Institutional quality and the productivity of entrepreneurship. *Journal of Business Venturing*, 23(6): 641-655.
- Spencer, J. W., & Gómez, C. 2004. The relationship among national institutional structures, economic factors, and domestic entrepreneurial activity: a multicountry study. *Journal of Business Research*, 57(10): 1098-1107.
- Stoian, C., & Mohr, A. 2016. Outward foreign direct investment from emerging economies: escaping home country regulative voids. *International Business Review*, 25(5): 1124-1135.
- Sun, S. L., Peng, M. W., Ren, B., & Yan, D. 2012. A comparative ownership advantage framework for cross-border M&As: The rise of Chinese and Indian MNEs. *Journal of World Business*, 47(1): 4-16.
- Temouri, Y., Driffield, N., & Bhaumik, S. K. 2016. A strategic perspective of cross-listing by emerging market firms: Evidence from Indonesia, Mexico, Poland and South Africa. *Journal of International Management*, 22(3): 265-279.
- Terjesen, S., Hessels, J., & Li, D. 2016. Comparative international entrepreneurship: A review and research agenda. *Journal of Management*, 42(1): 299-344.
- Thornton, P. H., Ocasio, W., & Lounsbury, M. 2012. *The institutional logics perspective*. Oxford: Oxford University Press.

- Tolbert, P. S., David, R. J., & Sine, W. D. 2011. Studying choice and change: The intersection of institutional theory and entrepreneurship research. *Organization Science*, 22(5): 1332-1344.
- Tonoyan, V., Strohmeyer, R., Habib, M., & Perlitz, M. 2010. Corruption and entrepreneurship: How formal and informal institutions shape small firm behavior in transition and mature market economies. *Entrepreneurship Theory and Practice*, 34(5): 803-831.
- Transparency International. 2016. <https://www.transparency.org/>. Accessed September 8, 2016.
- Tsang, E. W. K. 1996. In search of legitimacy: The private entrepreneur in China. *Entrepreneurship Theory & Practice*, 21(1): 21-30.
- Uhlenbruck, K., Rodriguez, P., Doh, J., & Eden, L. 2006. The impact of corruption on entry strategy: Evidence from telecommunication projects in emerging economies. *Organization Science*, 17(3): 402-414.
- Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. 2011. Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, 26(3): 341-358.
- Valdez, M. E., & Richardson, J. 2013. Institutional determinants of macro-level entrepreneurship. *Entrepreneurship Theory and Practice*, 37(5): 1149-1175.
- Whitley, R. 1999. *Divergent capitalisms: The social structuring and change of business systems: The social structuring and change of business systems*. Oxford: Oxford University Press.
- Witt, M. A., & Lewin, A. Y. 2007. Outward foreign direct investment as escape response to home country institutional constraints. *Journal of International Business Studies*, 38(4): 579-594.

- Wright, M., Pruthi, S., & Lockett, A. 2005. International venture capital research: From cross-country comparisons to crossing borders. *International Journal of Management Reviews*, 7(3): 135-165.
- Yamakawa, Y., Khavul, S., Peng, M. W., & Deeds, D. L. 2013. Venturing from emerging economies. *Strategic Entrepreneurship Journal*, 7(3): 181-196.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. 2008. What drives new ventures to internationalize from emerging to developed economies? *Entrepreneurship Theory and Practice*, 32(1): 59-82.
- Yiu, D. W., Lau, C., & Bruton, G. D. 2007. International venturing by emerging economy firms: The effects of firm capabilities, home country networks, and corporate entrepreneurship. *Journal of International Business Studies*, 38(4): 519-540.
- Zaheer, S. 1995. Overcoming the liability of foreignness. *Academy of Management Journal*, 38(2): 341-363, 10.2307/256683.
- Zahra, S. A. 2005. A theory of international new ventures: A decade of research. *Journal of International Business Studies*, 36(1): 20-28.
- Zahra, S. A., Ireland, R. D., & Hitt, M. A. 2000. International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43(5): 925-950.
- Zahra, S. A., Korri, J. S., & Yu, J. 2005. Cognition and international entrepreneurship: implications for research on international opportunity recognition and exploitation. *International Business Review*, 14(2): 129-146.

Zahra, S. A., Neubaum, D. O., & Huse, M. 1997. The effect of the environment on export performance among telecommunications new ventures. *Entrepreneurship Theory and Practice*, 22(1): 25-46.

Zhao, M. 2006. Conducting R&D in countries with weak intellectual property rights protection. *Management Science*, 52(8): 1185-1199.

**Table 1.1 List of Home Countries and Number of International New Ventures in Sample**

<b>Emerging Economy</b>	<b>International New Ventures</b>	<b>Developed Economy</b>	<b>International New Ventures</b>
Argentina	10	Finland	9
Brazil	5	France	6
Chile	61	Germany	34
Colombia	79	Greece	11
Croatia	9	Iran	15
Guatemala	1	Ireland	10
Jamaica	1	Norway	14
Latvia	10	Portugal	17
Malaysia	3	Slovenia	12
Mexico	5	South Korea	22
Pakistan	4	Spain	31
Peru	3	Sweden	9
Russia	2	Switzerland	18
South Africa	17	Taiwan	3
Trinidad and Tobago	18	United Kingdom	8
Turkey	12		

**Table 1.2. Descriptive Statistics**

<b>Variable</b>	<b>Mean</b>	<b>S.D.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1. Extent of new venture internationalization	2.30	0.61	1.00							
2. Emerging economy status <sup>a</sup>	0.55	0.50	-0.14*	1.00						
3. National financial system	2.45	0.35	-0.17*	-0.014*	1.00					
4. National skill development system	2.86	0.36	-0.15*	0.44*	0.31*	1.00				
5. National role of the state	4.99	0.60	-0.18*	0.21*	0.68*	0.66*	1.00			
6. National level of trust	5.51	2.07	0.01	-0.56*	0.60*	-0.20*	0.34*	1.00		
7. Founder general human capital	2.40	0.98	-0.02	-0.13*	0.08	-0.05	0.10*	0.20*	1.00	
8. Founder entrepreneurial self-efficacy	0.83	0.37	-0.01	-0.01	0.13*	0.07	0.10*	0.12*	0.12*	1.00

<sup>a</sup> Binary indicator (1=emerging economy; 0=developed economy)

\*  $p < 0.05$ ; N=459

**Table 1.3. Test of Necessary Conditions for High Extent of Internationalization**

<b>Level of Analysis</b>	<b>Causal Condition</b>	<b>Emerging-Economy International New Ventures (N = 240)</b>		<b>Developed-Economy International New Ventures (N = 219)</b>	
		<b>Consistency</b>	<b>Coverage</b>	<b>Consistency</b>	<b>Coverage</b>
Country	National role of the state	0.78	0.62	0.52	0.68
	National financial system	0.53	0.58	0.55	0.63
	National skill development system	0.58	0.55	0.42	0.67
	National level of trust	0.78	0.62	0.52	0.68
Founder	General Human Capital	0.67	0.66	0.69	0.77
	Entrepreneurial Self-Efficacy	0.87	0.46	0.83	0.58

**Table 1.4. Test of Sufficient Configurations for High Extent of Internationalization**

Level of Analysis	Causal Condition	EE1	EE2	EE3	DE1	DE2	DE3	DE4	DE5
Nation	The State		●	●	●	●	●	●	●
	Financial System	⊗	⊗	⊗	⊗	●	●		●
	Skill Development System		●			●	⊗	●	●
	Trust	●		●	●	⊗	●	●	
Founder	General Human Capital	⊗		●			●	⊗	⊗
	Entrepreneurial Self-Efficacy	●	●		●	●	⊗	●	●
	Consistency	0.87	0.94	0.96	0.95	0.91	0.93	0.92	0.91
	Raw Coverage	0.40	0.34	0.42	0.13	0.13	0.03	0.27	0.27
	Unique Coverage	0.07	0.03	0.07	0.03	0.00	0.03	0.00	0.00
	<b>Overall Solution Coverage</b>		<b>0.57</b>				<b>0.34</b>		
	<b>Overall Consistency</b>		<b>0.85</b>				<b>0.89</b>		
	<b>N</b>		<b>240</b>				<b>219</b>		



## ESSAY 2

### **CORPORATE ENTREPRENEURSHIP AND FIRM RESILIENCE: EVIDENCE FROM NEW FOREIGN SUBSIDIARIES DURING THE GLOBAL FINANCIAL CRISIS**

#### **ABSTRACT**

The establishment of foreign subsidiaries is a form of international corporate entrepreneurship that has many benefits to the parent multinational enterprise (MNE), yet is very risky. Despite the ubiquity of launching new foreign subsidiaries as a form of corporate entrepreneurship, studies of the early-stage success of this form of new venture are largely absent. Taking advantage of the natural experiment of the 2007-2009 global financial crisis, we use institutional theory to compare the entrepreneurial resilience of new foreign subsidiaries emanating from developed- and emerging- economy MNEs, using data on approximately 200 subsidiaries from a wide range of home countries. Our findings reveal that whereas new foreign subsidiaries of developed-economy MNEs enjoyed superior performance immediately before the crisis, subsidiaries of emerging-economy MNEs generally performed better during and after the crisis suggesting greater resilience on their part. These findings have important theoretical implications for both entrepreneurship and institutional theory scholarship.

**Keywords:** International entrepreneurship; institutional theory, foreign subsidiary performance; emerging-economy MNEs.

## 1. INTRODUCTION

*The loser now will be later to win, for the times they are a-changin'.*

*-Bob Dylan*

International entrepreneurship is a young, but burgeoning, stream of research concerning the pursuit of opportunities that cross national borders (Oviatt & McDougall, 2005). Within this stream, the focus has traditionally been on independent new ventures – with far less attention paid to the entrepreneurial activities of established firms in international markets (Keupp & Gassmann, 2009). One such activity is international venturing, which entails a multinational enterprise's (MNE) establishing a new subsidiary in a foreign country (Yiu, Lau, & Bruton, 2007). Although it has many financial and organizational benefits, international venturing is also a high-risk mode of entry that often leads to subsidiary exit within the first several years (Li, 1995). Yet, despite this high-risk, high-reward nature, it is unknown what makes foreign subsidiaries resilient (or not) during their fragile early years. Such an omission is noteworthy given that foreign direct investment flows have generally been on an upward trend in recent years (OECD, 2016), as more and more firms establish overseas units.

Additionally, increased global financial market integration has led to a higher risk of global financial crises (Doukas, 1989). Such crises are threatening to MNEs and their new foreign subsidiaries because the parent MNE cannot engage in the traditional response to a crisis, which is to shift resources towards subsidiaries affected by a local crisis (Chung, Lu, & Beamish, 2008). Colloquially, global crises can leave MNEs with “no place to hide” (Bartram & Bodnar, 2009: 1247). Overall, international entrepreneurship is complex and risky, especially during times of crisis.

Despite this danger, the international business literature has largely neglected strategies for surviving a global crisis (Dikova, Smeets, Garretsen, & Van Ees, 2013). Hence it is unknown

why some firms do well during crises, and how this might apply to international corporate ventures in turbulent periods. Although the home country has been suggested as an influencer of resilience (Markman & Venzin, 2014), few studies have investigated the influence of the institutional environment on firm performance under crisis conditions (Bundy, Pfarrer, Short, & Coombs, 2016).

To begin addressing these shortcomings, this study applies the concept of institutional advantage (Hall & Soskice, 2001; Martin, 2014) to develop theory regarding the relationship between MNEs' home country (i.e., emerging or developed) and new foreign subsidiary performance before, during, and after the 2007-2009 global financial crisis. Performance during and immediately after a crisis is widely viewed as an indicator of organizational resilience (e.g., Markman & Venzin, 2014; Meyer, 1982). We theorize how home-country institutions affect new foreign subsidiaries' ability to react to crisis conditions, based on the institutional experience of the parent MNE in the home country prior to the establishment of the foreign subsidiary.

We apply hierarchical linear modeling to a sample of approximately 200 new foreign subsidiaries operating in 60 host countries and 24 global industries during 2004-2012, encompassing the pre-crisis, in-crisis, and post-crisis periods. Our findings reveal that new foreign subsidiaries of developed-economy MNEs enjoyed a significant performance advantage heading into the crisis years. However, the situation reversed during the global financial crisis, as new foreign subsidiaries of emerging-economy MNEs performed better during this time. They also performed better in the post-crisis years, contingent upon the availability of slack resources.

As such, this study contributes to the stream of international entrepreneurship by demonstrating how the home country affects the resilience of international corporate ventures. In particular, we respond to calls for the application of international business theory to international

entrepreneurship phenomena (Keupp & Gassmann, 2009; Terjesen, Hessels, & Li, 2016). Our use of institutional theory in the context of international venturing reveals a strong connection between the home country and the initial success of international venturing activities, adding critical insights to the limited stock of knowledge regarding the international entrepreneurship of established firms (Keupp & Gassmann, 2009).

These insights also have implications for MNE success, especially emerging-economy MNEs. There is great impetus to understand the differences between MNEs from developed countries and those from emerging economies (Guillén & García-Canal, 2009; Hoskisson, Eden, Lau, & Wright, 2000). One of the greatest puzzles surrounding emerging-economy MNEs is how they are able to compete with developed-economy MNEs despite considerable institutional voids and sub-par resource bases in their home countries (Contractor, 2013; Ramamurti, 2012). Put differently, the sources of competitive advantage of emerging-economy MNEs remain a mystery (Luo & Zhang, 2016). Our results show that emerging-economy MNEs may possess a competitive advantage in the form of increased resilience.

## **2. INTERNATIONAL CORPORATE ENTREPRENEURSHIP**

Corporate entrepreneurship is “the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization, or instigate renewal or innovation within that organization” (Sharma & Chrisman, 1999: 18). When such activities cross national borders, it is called *international* corporate entrepreneurship (Zahra & Garvis, 2000). Although international corporate entrepreneurship can take many forms, the establishment of a new foreign subsidiary or international venturing (Yiu et al., 2007) is a particularly relevant activity for established firms (Keupp & Gassmann, 2009). Whereas other forms of entry in foreign markets, such as exporting, are favored by younger, independent firms

due to relatively low risks (e.g., Knight & Cavusgil, 2004), such modes of entry can involve significant loss of control regarding the manner in which products are sold overseas (Dunning, 1980). International venturing, however, is thought to be an efficient vehicle for transferring tacit knowledge to foreign markets, ensuring more control over sales and the safeguarding of proprietary firm knowledge (Kogut & Zander, 1993). Other benefits for MNEs include being able to perform firm activities in the location where it costs the least (Dunning, 1980); gaining access to immobile institutional facilities or clusters of firms that can add knowledge-intensive value to products/services (Dunning, 2009); increased depth, breadth, and speed of organizational learning (Zahra, Ireland, & Hitt, 2000); and greater value for investors (Morck & Yeung, 1991).

## **2.1 Antecedents of International Corporate Entrepreneurship**

Motivations for international corporate entrepreneurship can be broadly categorized into “pull” and “push” factors. Pull factors are characteristics of foreign markets that induce entrepreneurial firms to expand overseas. For example, the recognition that the firm controls unique resources or ownership advantages that can be exploited to sell products or services in foreign markets, thereby increasing firm profitability, may lead to international venturing (Dunning, 1980). Additionally, firms may benefit from assets of foreignness, the unique advantages of operating in another country, such as incentive programs from host governments to engage in foreign direct investment (Sethi & Judge, 2009). Additionally, multinational operations allow the firm to leverage knowledge and pricing options from around the world (Sethi & Judge, 2009). Finally, firms from emerging-economies are thought to engage in international venturing to gain access to more advanced resources that are not available in their home countries and develop ownership advantages (Luo & Tung, 2007), or to acquire resources

that complement their existing strengths (Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010; Yiu et al., 2007).

In contrast, “push” factors pressure firms to internationalize regardless of the attractiveness of foreign markets. For example, increased competition or nearing the end of a product’s life cycle in the domestic market may lead firms to seek out foreign markets with better growth potential (Vernon, 1979; Wiersema & Bowen, 2008). Home-country institutional factors also represent a strong pressure to internationalize. Increased economic coordination in the home country may reduce profitability, prompting firms to “escape” by venturing abroad (Witt & Lewin, 2007). In emerging-economies, these institutional pressures are especially salient. The lack of stringent and reliable government regulations in emerging economies means intellectual and physical property could be expropriated (Hoskisson et al., 2000; Ramamurti, 2012; Zhao, 2006), leading firms to internationalize into countries where these assets would be protected. Also, emerging-economy MNEs may seek to cross-list on the financial markets in developed countries due to the lack of such markets in their home nations (Temouri, Driffield, & Bhaumik, 2016).

## **2.2 Evaluating the Performance of International Corporate Entrepreneurship**

Firm-level outcomes of international corporate entrepreneurship have received some attention, but the emphasis heretofore has generally been on organizational learning and the role of the parent MNE, with few studies of new foreign subsidiary resilience or the influence of home-country institutional contexts. Upon entry into a foreign country, it takes subsidiary managers approximately four to five years to realize the gaps in their knowledge of the host market, then another four to five years to close these gaps (Petersen, Pedersen, & Lyles, 2008). Furthermore, this learning about the host market has a positive influence on subsidiary

performance (Delios & Beamish, 2001; Liu, Gao, Lu, & Lioliou, 2014). Subsidiaries can also draw on the stock of knowledge within the larger MNE network to improve performance, especially if such knowledge is closely related to subsidiaries' operations (Fang, Wade, Delios, & Beamish, 2013). The deployment of expatriates in subsidiary operations can further enhance knowledge transfer from parents to subsidiaries, though the positive effects diminish over time (Fang, Jiang, Makino, & Beamish, 2010).

Other resources at the parent level can improve subsidiary performance, such as intangible resources (Delios & Beamish, 2001) and acquisition experience – if entry is made by purchasing an existing firm (Uhlenbruck, 2004). Additionally, other subsidiaries can be a source of knowledge. The greater the operating experience of other, older subsidiaries, the lower the exit rate for younger subsidiaries, especially during times of environmental change, when they are more likely to search for advice from other units in the MNE network (Kim, Lu, & Rhee, 2012). Finally, other networks to which subsidiaries belong, such as business relationships in the host country, can improve learning and performance (Andersson, Forsgren, & Holm, 2002).

In sum, although the role of the parent MNE in foreign subsidiary operations (especially learning) has been investigated at length, the effects of home-country institutions are not well understood. This omission is noteworthy given the important role of home-country institutions in the development of firm capabilities (e.g., Martin, 2014). The capabilities developed in the home-country institutional context can be an important determinant of competitive advantage during the early years of foreign subsidiaries' lives (Mallon & Fainshmidt, 2017), as firms leverage such capabilities to increase the parent MNEs' sales in the host market (Birkinshaw, Hood, & Young, 2005; Uhlenbruck, 2004). Established subsidiaries, on the other hand, are often expected to leverage attributes of the host market to contribute unique knowledge and resources

to the larger MNE network (e.g., Bartlett & Ghoshal, 1989; Zahra et al., 2000). Yet, such benefits cannot be enjoyed by the MNE if new foreign subsidiaries are not successful and do not reach maturity.

Additionally, many studies of foreign subsidiaries use samples of firms originating from only one or a few different home countries (e.g., subsidiaries of only Japanese MNEs in Kim et al., 2012; or international venturing of Chinese MNEs in Yiu et al., 2007). This problem is especially severe in studies of emerging-economy MNEs (Luo & Zhang, 2016). The lack of diversity in sampling has stymied the progress of international entrepreneurship research, especially understanding of inter-country differences in international entrepreneurship (Terjesen et al., 2016). To begin addressing these voids, the present study develops and tests theory regarding home country and the resilience of new foreign subsidiaries originating from approximately 40 countries, roughly evenly split between developed and emerging countries. As a first step in cross-country comparisons of corporate international entrepreneurship, we focus on the differences between international venturing out of emerging and developed economies, as firms from these two types of economies are thought to behave very differently in their international activities (Guillén & García-Canal, 2009).

### **3. THEORETICAL DEVELOPMENT**

International entrepreneurship scholars have called for the application of international business theory to help explain international entrepreneurship phenomena (Keupp & Gassmann, 2009; Terjesen et al., 2016). Accordingly, given our interest in comparing firms from developed and emerging economies, we adopt an institutional viewpoint, which has become an important theoretical lens for explaining the behavior of MNEs from emerging markets (Meyer & Peng, 2016). This viewpoint is rooted in the economic institutionalism of North (1990), who argued



that formal (e.g., laws) and informal (e.g., culture) national institutions create the “rules of the game” that shape the behavior of social actors, including firms. Essentially, institutions discourage certain actions while encouraging others that fit with prevailing norms and rules in a country. Because of the power of institutions, firms develop routines and strategies to match the institutional environment of the home or host country (Peng, Wang, & Jiang, 2008).

Although applications of this theory often investigated institutional factors as *constraints* on firm strategy (Peng et al., 2008), recent scholarship has explored how institutions *enable* certain firm strategies that would not be imitable by host-market rivals who lack access to the enabling institutions, especially in the first several years of a foreign subsidiary’s life cycle (Mallon & Fainshmidt, 2017). For example, abundant, inexpensive labor can help firms located in emerging economies perform activities with much less cost than firms in developed economies (Sun, Peng, Ren, & Yan, 2012). Similarly, some industries are especially productive and competitive within different countries, such as the Japanese robotics industry (Porter, 1990). Such advantages that are generally available to all or most firms in a country as a result of supportive institutions are called *comparative* institutional advantages (Hall & Soskice, 2001). Essentially, a comparative institutional advantage exists when it is easier or more efficient for a firm to engage in an activity in a given country, rather than in another one.

Extending this notion further, Martin (2014) explicated the notion of *competitive* institutional advantage, which comes about through an evolutionary process whereby firms actively interact with their institutional environment to develop distinct firm-level resources or capabilities. Specifically, “a firm has an institutional competitive advantage when it is implementing a strategy, featuring distinctive resources and activities enabled by its interactions with the institutional environment, which generates economic value in excess of its

competitors” (Martin, 2014: 59). The key difference between an institutional comparative and competitive advantage is that the locus of an institutional comparative advantage is at the country level, whereas the locus of an institutional competitive advantage is at the firm level, resulting from the interaction of the firm and the institutional environment in a country.

The notion of competitive institutional advantage is applied here to theorize about the resilience of developed- and emerging-economy MNE subsidiaries that may have developed as a result of their parents’ interaction within their home countries’ institutional environments. We assert that new foreign subsidiaries of developed-economy MNEs have a competitive institutional advantage during the pre-crisis period of 2004-2006. However, new foreign subsidiaries of emerging-economy MNEs will have a competitive institutional advantage during and immediately following the crisis because their parent MNEs have interacted with resource-scarce and volatile environments in their home countries, enabling them to better navigate crisis-like conditions.

### **3.1 Pre-crisis Performance**

The internationalization strategies of emerging- and developed- economy MNEs suggest important and divergent sources of institutional competitive (dis)advantage for these two kinds of firms. Luo and Tung (2007) asserted that emerging-economy MNEs internationalize very rapidly in order to catch up to developed-economy MNEs that are already well-established in international markets. By doing so, they attempt to overcome deficiencies in their resource bases, especially compared to developed-economy MNEs. That is, emerging-economy MNEs internationalize to gain access to complementary assets (e.g., technologies) unavailable in their home countries (Gubbi et al., 2010; Sun et al., 2012; Yiu et al., 2007).

Such rapid internationalization to gain access to resources is necessary because emerging-economy MNEs are thought to operate without strong ownership advantages because of the institutions in their home countries. Less developed educational systems, financial markets, and technological infrastructure impede firms' innovation (Furman, Porter, & Stern, 2002) and, given that these conditions are common in many emerging markets, the firms that internationalize out of them typically lack prototypical ownership advantages that are specific to the individual firm, such as technological assets or intellectual property (Cuervo-Cazurra, 2012; Ramamurti, 2012). Rather, emerging-economy MNEs are thought to operate primarily with "ordinary resources" that are not as conducive to sustainable profit generation as resources that are unique to the firm (Madhok & Keyhani, 2012: 28).

As a result, there may exist a "liability of emergingness" (Madhok & Keyhani, 2012), and emerging-economy MNEs can find it difficult to compete against developed-economy rivals. To offset this liability, they may engage in copying the strategies of these rivals (Luo, Sun, & Wang, 2011), or they may compete based mainly on cost advantages (Sun et al., 2012). Indeed, meta-analytic findings have shown that the influence of firm-specific assets on the internationalization-performance relationship is much weaker for emerging- than developed-economy MNEs (Kirca et al., 2011), and that institutional voids and volatility in the home country further dampen this relationship (Geleilate, Magnusson, Parente, & Alvarado-Vargas, 2016). In other words, because they originate from institutional environments that do not generally support the development of firm-specific resources, emerging-economy multinationals may operate "sans ownership advantage" (Ramamurti, 2012: 41).

Developed-economy MNEs, on the other hand, can more easily innovate due to their access to more developed technological and human capital infrastructures in their home countries

(Furman et al., 2002; Mallon & Fainshmidt, 2017). For example, well-developed education systems foster human capital that is critical for the recognition, development, and commercialization of entrepreneurial ideas with high-growth potential (Bowen & De Clercq, 2008). Furthermore, robust legal protections of intellectual property in most developed economies encourage investment in activities that lead to firm-specific assets (Hall & Soskice, 2001).

As a result, developed-economy MNEs may possess a competitive institutional advantage because they are more likely than emerging-economy MNEs to possess firm-specific assets due to their interactions with the institutions in their home countries (Madhok & Keyhani, 2012; Ramamurti, 2012). Moreover, developed-economy MNEs generally enter international markets only after developing strong firm-specific advantages (Guillén & García-Canal, 2009; Johanson & Vahlne, 1977), allowing their newly established foreign subsidiaries to simply leverage these ownership advantages in foreign markets (Delios & Beamish, 2001).

In contrast, emerging-economy MNEs typically internationalize to better access resources to build their firm-specific advantages, so their new foreign subsidiaries may not have a strong firm-specific advantage to exploit immediately following entry (Kim, Hoskisson, & Lee, 2015). Accordingly, new subsidiaries of developed-economy MNEs should outperform those of emerging-economy MNEs during normal macroeconomic conditions, as they need only leverage the existing ownership advantages of their parents.

Additionally, developed-economy MNEs generally have more experience in international markets, which can give them a competitive edge. When they enter new countries, developed-economy MNE parents and their subsidiaries can mimic other firms in their industry from their home country, reducing some of the uncertainty associated with new market entry (Guillén,

2002). On the other hand, emerging-economy MNEs may not be able to mimic other MNEs originating from their home country because such firms are generally younger, leading some scholars to call them “new” multinationals (Guillén & García-Canal, 2009). Moreover, sound and experienced advice from experts may be difficult to come by, as the consulting and venture capital industries are rather undeveloped in emerging economies (Wright, Pruthi, & Lockett, 2005). Hence there may be greater uncertainty for emerging-economy MNEs when they first establish a foreign subsidiary.

Finally, a performance advantage for new foreign subsidiaries of developed-economy MNEs should be generalizable to most host-country contexts during normal conditions. In advanced host countries, new subsidiaries of emerging-economy MNEs generally possess inferior resources when compared with developed-economy MNE subsidiaries and local firms, and so they must engage in costly learning and resource-upgrading; consequently, they typically only begin to exhibit performance gains in the later stages of the subsidiary life cycle (Kim et al., 2015). Although emerging-economy MNE subsidiaries may be more adept at dealing with volatile or absent institutions in emerging host markets (Hu, 1995), gaining market share can be difficult because many buyers may be biased towards firms and products from developed nations over those from other emerging nations due to the social prestige of owning products from advanced nations (Yildiz & Fey, 2012). Hence, new developed-economy subsidiaries may have a built-in advantage that is applicable in both developed and emerging host markets.

In sum, the bulk of the literature on emerging-economy MNEs suggests that these firms face many challenges competing against developed-economy MNEs under normal macroeconomic conditions and in most host-country contexts, and such challenges are likely to be especially severe early in the lives of new foreign subsidiaries that often must engage in

resource-building when they enter a host market. Developed-economy MNEs, however, have access to home-country institutions that support the development of firm-specific resources. This institutional environment prepares new foreign subsidiaries of developed-economy MNEs for international competition, because they need only leverage the existing advantages of the parent MNE and do not have to engage in significant resource-building immediately following entry into a host market, as their emerging-economy rivals do. This is not to say that emerging-economy MNE subsidiaries cannot compete with developed-economy MNE subsidiaries. As we will discuss, they may possess other kinds of advantages. Rather, we suggest that emerging-economy MNEs and their subsidiaries must first overcome a great deal of obstacles to become competitive, and these obstacles are far less likely to inhibit developed-economy MNEs (Contractor, 2013). Thus, under the relatively normal macroeconomic conditions preceding the 2007-2009 global financial crisis, new foreign subsidiaries of developed-economy MNEs should generally have an advantage.

*Hypothesis 1: New foreign subsidiaries of developed-economy MNEs will outperform new foreign subsidiaries of emerging-economy MNEs in the years immediately preceding the 2007-2009 global financing crisis.*

### **3.2 In-crisis Performance**

Although new foreign subsidiaries of developed-economy MNEs may have an advantage under stable macroeconomic circumstances, it is our contention that new foreign subsidiaries of emerging-economy MNEs will perform better under global crisis conditions. In line with Martin's (2014) definition of competitive institutional advantage, we theorize that emerging-economy MNEs' interaction with their home-country institutional environments may result in unique abilities that are less available to developed-economy rivals. Such abilities can then be

transferred to subsidiaries for deployment in host markets (Kogut & Zander, 1993; Kostova & Roth, 2002).

Environmental jolts like crises often result in severe declines in environmental munificence (Wan & Yiu, 2009), and the 2007-2009 global financial crisis was no exception. In 2008, a worldwide market capitalization loss of \$19.4 trillion occurred, representing a 46 percent decline from 2007 levels (Garelli, 2009). The crisis has been described as the worst financial crisis in history by former United States Federal Reserve Chairman Ben Bernanke, an economist who studied economic crises extensively (Patton, 2014). Moreover, the suddenness and international nature of the crisis was unusual, in that environmental munificence declined rapidly in a large number of countries, rendering ineffective typical MNE strategies for coping with a crisis by shifting resources from unaffected markets to crisis-stricken areas (Chung et al., 2008). “The 2008 global financial crisis is notable for a number of reasons, including most obviously its severity and speed. The international span of the crisis has also been remarkable; essentially all the industrialized countries have been affected, as well as a large number of developing and emerging economies” (Rose & Spiegel, 2012: 1-2).

A severe and widespread crisis is problematic for MNEs because low levels of munificence constrain firm performance by limiting the amount of resources available to formulate and implement strategy (Dess & Beard, 1984). When resources are scarce, the viability of the organization is threatened: necessary inputs needed for the production of products and/or services may be harder to come by, and errors in resource management are magnified (Sirmon, Hitt, & Ireland, 2007). Additionally, a dearth of available resources means innovation is more difficult, as is balancing the competing demands of multiple coalitions within the firm (Aragón-Correa & Sharma, 2003).

Yet, new foreign subsidiaries of emerging-economy MNEs may be better prepared to cope with resource scarcity than their developed-economy competitors. The notion of competitive institutional advantage proposes that firms interact with their institutional environment, developing skills as they do so (Martin, 2014). Emerging-economy home countries are often characterized by resource scarcity, as such countries typically lack established financial markets that can provide firms with access to financial capital (Wright, Filatotchev, Hoskisson, & Peng, 2005), as well as strong education systems that can provide access to human capital (Kiss, Danis, & Cavusgil, 2012). Consequently, emerging-economy firms may possess significantly less financial resources than their developed-economy peers (Demirgüç-Kunt & Maksimovic, 1999) and, as discussed, may lack human capital resources as well.

Yet, despite these resource constraints, emerging-economy MNEs exist and grow (Ramamurti, 2012). One major explanation for their continued existence is that they have the skills needed to function in “difficult” environments; in particular, they are thought to be more capable than developed-economy MNEs at doing more with less, finding creative measures to develop efficiencies and compete with fewer resources at hand (Cuervo-Cazurra, 2012; Ramamurti, 2012). For example, India-based Tata Global Beverages experienced steady international growth during the 2007-2009 global financial crisis, and even became a global market leader during this period (Tata Global Beverages, 2010). Similarly, emerging-economy MNEs have a larger presence in least-developed countries than their developed-economy rivals, perhaps because they are better at coping with the weak economic growth in such places (Cuervo-Cazurra & Genc, 2008).

Given these strengths, it is not surprising that emerging-economy firms often pursue low-cost strategies (Sun et al., 2012). Although a low-cost position may generally be harder to defend



than a differentiated position (Madhok & Keyhani, 2012) – at least under normal circumstances – such a strategy becomes more effective than differentiation during lean economic times, when buyers are much more sensitive to price (Kunc & Bhandari, 2011). Hence, at the onset of the 2007-2009 global financial crisis, many emerging-economy firms would be positioned to perform well during the crisis because they were already pursuing a strategy that fit with the macroeconomic conditions that were about to occur. An average developed-economy firm pursuing a generic differentiation advantage, on the other hand, would likely have to make significant strategic changes to adapt, such as cutting costs and/or prices. Such adaptation would be difficult, however. Even in advanced nations, consumer spending on luxury (i.e., highly differentiated) products dramatically dropped during the financial crisis years (Kapferer & Bastien, 2009), as the crisis was even more severe in countries with higher incomes (Rose & Spiegel, 2011). Cost-cutting efforts on the part of developed-economy firms would thus have to be extreme. In emerging economies, developed-economy MNEs almost exclusively target the wealthiest segments of the population and generally struggle to develop products and services for the large swathes of less wealthy people (London & Hart, 2004), again indicating potential strategic misfit in these markets during times of economic crisis.

Importantly, the ability to operate with few resources and the implementation of low-cost strategies will likely be transferred to new foreign subsidiaries of emerging-economy MNEs for deployment in local environments. During their early years of existence, foreign subsidiaries lean heavily on the routines and competencies of the parent MNE, before they begin developing their own unique capabilities (Kim et al., 2012; Uhlenbruck, 2004). These parent-level practices are typically formulated in the institutional environment of the home country (Kostova & Roth, 2002). Given that young subsidiaries are often staffed with large numbers of home-country

expatriates (Peng & Beamish, 2014), emerging-economy MNEs' capabilities for coping with the resource scarcity in their *home* country can be efficiently transferred to subsidiaries in different *host* countries to improve their performance during the crisis (Liu et al., 2014). Indeed, some evidence of emerging-economy MNEs' strengths for operating in less munificent environments has been found at the subsidiary level (e.g., Cuervo-Cazurra & Genc, 2008; Kim et al., 2015).

In sum, emerging-economy MNEs are likely to have two advantages over developed-economy MNEs during the 2007-2009 global financial crisis: first, they are much more accustomed to operating under resource-scarce environmental conditions, such as the steep drops in gross domestic product (GDP) that occurred during the crisis (Rose & Spiegel, 2012). Additionally, emerging-economy MNEs' general reliance on low-cost strategies would exhibit greater fit with the environment during the crisis years. These advantages are likely to be transferred to new foreign subsidiaries and deployed in host markets. Developed-economy MNEs that are less accustomed to resource scarcity and more likely to pursue differentiation strategies would likely find it very difficult to adapt, even in their traditional strongholds of advanced-nation host markets. Thus:

*Hypothesis 2a: New foreign subsidiaries of emerging-economy MNEs will outperform new foreign subsidiaries of developed-economy MNEs during the 2007-2009 global financial crisis.*

In addition to fostering an ability to cope with resource scarcity, the institutional environment within emerging economies also inculcates a disciplined use of unused resources. Given that organizations are dependent upon resources from *outside* the firm for survival (Pfeffer & Salancik, 1978), resources *within* the firm become critical during times of resource scarcity (Cyert & March, 1963; Sirmon et al., 2007). Under such conditions, firms may become even

more dependent upon external actors for resources than during munificent periods, as any actors controlling critical resources would have enhanced bargaining power to influence firm operations (Pfeffer & Salancik, 1978). Yet, if there are unused or extra resources within the firm, these “slack” resources could effectively substitute for those that would usually come from the external environment (Bourgeois, 1981; Sirmon et al., 2007), meaning the firm would not have to expend energies to meet the demands of external resource controllers, thereby increasing organizational effectiveness and efficiency (Pfeffer & Salancik, 1978).

Furthermore, slack resources can be quickly committed to strategic change efforts in response to environmental shifts (Bourgeois, 1981), such as sudden jolts or crises (Meyer, 1982). Consequently, the resource dependency perspective suggests that slack resources can influence a firm’s strategic behavior (Park, Chen, & Gallagher, 2002). Specifically, unabsorbed slack resources are those that are completely uncommitted, in contrast to absorbed slack resources, which are tied up in existing operations (but could potentially be redeployed elsewhere). Of these two, unabsorbed slack, such as excess financial resources, is the most useful during a crisis or jolt because it allows for greater flexibility of use, speed of deployment, and managerial discretion (Tan & Peng, 2003; Wan & Yiu, 2009).

Accordingly, unabsorbed slack should enhance the advantage of emerging-economy MNEs’ foreign subsidiaries during the crisis years by improving their ability to cope with resource scarcity in the external environment. This enhancement stems from the institutional conditions of their home countries. The use of slack and the subsequent performance effects varies between emerging- and developed-economy firms, with emerging-economy firms generally using slack more deftly (Stan, Peng, & Bruton, 2014; Vanacker, Collewaert, & Zahra, 2016). In developed countries, financial capital is readily available from external financial

markets (Vanacker et al., 2016); consequently, this easy access to extra resources can breed complacency and poor performance when slack levels are high (George, 2005). In emerging economies, extra financial capital is often difficult to obtain due to less-developed financial institutions (Temouri et al., 2016). Accordingly, emerging-economy MNEs develop a “frugal” mindset, and invest slack resources very carefully in profitable growth opportunities and innovations (Contractor, 2013; Inoue, Lazzarini, & Musacchio, 2013). Whereas too much slack can lead to negative performance outcomes for developed-economy firms, slack may have a positive, linear relationship with the performance of emerging-economy firms (Tan, 2003; Tan & Peng, 2003), because the resource-scarcity in their home countries has forced them to be more disciplined in their management of excess resources.

Thus, although they are already well-suited for operating in resource-scarce environments, greater levels of slack could increase the performance of emerging-economy subsidiaries further because it will substitute for a lack of resources in the external environment and reduce the need to allocate scarce resources to appease external actors. Additionally, emerging-economy firms are more careful in their use of slack as a result of the resource constraints experienced in their home countries. Organizational learning of how to deploy slack effectively on the part of the parent MNE can be transferred to foreign subsidiaries (Liu et al., 2014), such that they will also know how to effectively utilize unabsorbed slack resources during the crisis. Hence:

*Hypothesis 2b: Unabsorbed slack will amplify the performance advantage of new emerging-economy MNE foreign subsidiaries during the 2007-2009 global financial crisis.*

### **3. Post-crisis Performance**

New foreign subsidiaries of emerging-economy MNEs can be expected to continue their superior performance into the post-crisis period. It can take many years for the losses from an economic crisis to be regained, with some scholars going so far as to say that true recovery is a myth (Cerra & Saxena, 2008). Indeed, recovery from the 2007-2009 global financial crisis was sluggish even five years after the fact (Howard, Martin, & Wilson, 2011). It stands to reason that emerging-economy firms' capabilities for operating in resource-scarce environments are likely to continue to be important even after the 2007-2009 financial crisis formally ended due to the slow-paced recovery.

However, where growth does occur, new emerging-economy subsidiaries should be better able to capitalize on it than their developed-economy peers. After an environmental jolt occurs, a period of readjustment follows, in which affected organizations may need to adapt to fit with the changes brought on by the jolt (Meyer, 1982). These changes occur because social actors who experienced the jolt question prevailing logics (Sine & David, 2003). In the aftermath of the 2007-2009 global financial crisis, many policy makers and pundits called for changes to critical public- and private-sector institutions to prevent future crises (Riaz, Buchanan, & Bapuji, 2011). For example, in the United States, the Dodd-Frank Wall Street Reform and Consumer Protection Act was enacted in 2010, which greatly increased regulations of the financial sector to help avoid future crises. Around the world, many central banks altered their monetary policies (Cukierman, 2013). As a result of institutional changes, post-crisis periods often exhibit a high degree of economic volatility (Schwert, 1989). Indeed, many countries still experienced economic disruptions or uneven growth after the global financial crisis formally ended in 2009 (Ball, 2014).

Yet, such volatility also creates entrepreneurial opportunities (Sine & David, 2003). According to Meyer (1982), the dominant factor influencing an organization's ability to bounce back from a crisis during the readjustment period is the extent to which it has an entrepreneurial strategy and adaptive ideology. Put differently, following a crisis, organizations that can quickly re-orient themselves and are not averse to taking risks will likely perform better than those that are more inertial in their responses. Above, we argued that the institutional environments of emerging-economy MNEs' home countries encourage them to learn how to cope with resource constraints; next, we apply a similar logic to argue that the home-country institutional environments of emerging-economy MNEs also inculcate speed and risk-taking, enabling them to exhibit superior performance in the wake of the global financial crisis.

In general, emerging economies are characterized by weaker national institutions, leading to a volatile political and social environment as well as frequent macroeconomic shocks (Hoskisson et al., 2000; Luo, 2001). As Meyer and Peng (2016: 4) noted: "In our view, emerging economies have a far greater variation and frequency of change in institutions. . ." For example, in 2016, the Indian government enacted a policy of "demonetization," scrapping almost overnight the two most popular bank notes of the rupee, which made up 86% of all rupees in circulation; unsurprisingly, this move created a great deal of economic disorder (The Economist, 2016).

As a result of volatile institutions in emerging markets, firms founded in these countries must perforce develop appropriate skills for coping with such uncertainty and instability in order to compete and survive (Luo & Rui, 2009). Indeed, changing in the face of volatility may be rote for emerging-economy firms: "Repeated adaptation to changing environments has become a new normal in emerging economies" (Meyer & Peng, 2016: 7). In other words, navigating institutions

is something every organization must do (Peng et al., 2008), and emerging-economy MNEs must navigate a volatile institutional environment, suggesting that they will become adept at coping with volatility and change as a result of this interaction. For example, new ventures founded in emerging economies with institutional voids are more likely to engage in corruption, a risky and often illegal behavior, as an adaptive response (Tonoyan, Strohmeier, Habib, & Perlitz, 2010). This suggests that emerging-economy MNEs develop a capacity for taking risks beginning around the time of firm inception. Similarly, their rapid internationalization may also be a result of the institutional volatility in their home countries, as they are accustomed to acting quickly when opportunities present themselves (Madhok & Keyhani, 2012).

Accordingly, scholars have suggested that emerging-economy MNEs possess greater capabilities for risk-taking, agility, and strategic implementation speed, allowing them to capture fleeting opportunities (e.g., Guillén & García-Canal, 2009; Luo & Rui, 2009; Madhok & Keyhani, 2012). For example, emerging-economy MNEs are known for their “bold” acquisitions in developed countries that allow for fast entrance into new markets (Cuervo-Cazurra, 2012; Madhok & Keyhani, 2012). Available empirical evidence also suggests that these mindsets may be transferred to foreign subsidiaries, who can apply the lessons learned at the parent MNE level in host markets (Liu et al., 2014). For example, rather than shy away from corrupt nations, as many MNEs do, emerging-economy MNEs originating from corrupt countries are more likely to enter other corrupt countries, perhaps because they possess abilities to navigate the risks posed by such environments (Cuervo-Cazurra, 2006). Similarly, emerging-economy MNEs are more likely than their developed-economy rivals to enter least-developed countries, where large institutional voids mean they must deal with rapidly changing environments (Cuervo-Cazurra & Genc, 2008). Though these studies deal with an increased likelihood of entry, they stop short of

measuring performance post-entry. Hence, it is unclear whether such skills truly constitute a competitive institutional advantage that creates economic value.

We argue that these advantages can create value for emerging-economy MNEs in the aftermath of the 2007-2009 global financial crisis. Given their capabilities for risk-taking and strategic implementation speed, new foreign subsidiaries of emerging-economy MNEs should be better equipped to respond to the economic volatility that occurred in the wake of the crisis. In turn, this will allow them to perform better than new foreign subsidiaries of developed-economy MNEs. After jolts such as financial crises occur, narrow windows of opportunity (such as to acquire other firms) open for industrious firms to take advantage of, and firms that do so tend to perform better (Wan & Yiu, 2009). Given their increased willingness to take risks and move swiftly, emerging-economy MNEs and their subsidiaries should be better able to capitalize on such opportunities, increasing their performance. This type of decisive risk-taking would be warranted during the volatile growth period following the 2007-2009 global financial crisis. Indeed, a meta-analysis of the internationalization-performance relationship showed that emerging-economy MNEs accrued greater gains from their multinational operations *after* rather than *before* the crisis (Geleilate et al., 2016), further suggesting a capability for taking justified risks as macroeconomic conditions remain uncertain.

On other hand, developed-economy MNE subsidiaries may be slower to react, as they are more accustomed to stable and predictable environments. In the words of Cuervo-Cazurra (2012: 160): “Managers of DMNCs [developing-economy multinational corporations] are likely to be better at dealing with risk than managers of AMNCs [advanced-economy multinational corporations] because of the higher levels of uncertainty and crises prevalent in developing countries.” That is, developed-economy MNE subsidiaries may be unwilling or unable to quickly



respond in a post-crisis situation, even though such actions would likely improve performance (Wan & Yiu, 2009). Indeed, studies in developed-country contexts have shown that firms tend to rely on previously successful strategies, even when environmental jolts occur that demand immediate large-scale changes (Audia, Locke, & Smith, 2000). Hence, given their advantage in the pre-crisis years, new foreign subsidiaries of developed-economy MNEs are unlikely to change course significantly during and immediately after the crisis.

To summarize, the willingness to take risks and swiftly implement strategy on the part of emerging-economy MNEs is likely an adaptive response to their home-country institutional environments. These skills will be highly applicable during the post-crisis period of economic volatility, when firms must adjust to new circumstances and be prepared to pounce on fleeting opportunities. This mindset is likely to be transferred to new subsidiaries, which implement the competencies of parent MNEs. Therefore, in the waning period of the crisis and immediate aftermath, new foreign subsidiaries of emerging-economy MNEs should be able to fully exploit their competitive institutional advantage by more quickly adjusting to market changes and growth opportunities than developed-economy rivals, positively impacting their performance. In areas where growth is more sluggish, their ability to operate with fewer resources will continue to be a source of advantage. Thus:

*Hypothesis 3a: New foreign subsidiaries of emerging-economy MNEs will outperform new foreign subsidiaries of developed-economy MNEs in the years immediately following the 2007-2009 global financial crisis.*

Furthermore, unabsorbed slack should enhance new emerging-economy MNE subsidiaries' capability to exploit growth opportunities in the post-crisis years by enabling them to deploy this capability. As discussed above, unabsorbed slack within the firm lessens the

dependence on external actors, giving the firm more discretion to engage in other activities. Demands from external resource controllers may compete with the immediate strategic goals of the firm (Pfeffer & Salancik, 1978), hampering firms' abilities to exploit opportunities that may arise during the economic upswing following a financial crisis. Essentially, the less slack there is within the firm, the more asymmetric the relationship between the firm and external resource controllers, meaning the firm may have to put the goals of external actors before the goals of the firm to ensure survival (Pfeffer & Salancik, 1978). Such a strategy may help prevent the firm from failing, but can hinder superior performance, as the goals of external actors may not align with those of the firm. On the other hand, firms with slack are less dependent on external actors and therefore freer to engage in activities that directly benefit them, such as pursuing in growth opportunities.

Additionally, although a willingness to take risks on growth opportunities is important during the volatile readjustment period following a crisis (Meyer, 1982), firms require extra resources to pursue such opportunities (Penrose, 1959; Wan & Yiu, 2009). Available slack allows firms to take risks on novel opportunities without necessarily losing important resources involved in the existing value-creation process (George, 2005). Conversely, a dearth of slack can constrain firms' ability to pursue strategic opportunities, as doing so might disrupt existing activities (Barker III & Duhaime, 1997). Hence, without slack, emerging-economy subsidiaries' speed and risk-taking capabilities will be more difficult to deploy, as it will require shifting resources that are already involved in the value-creation process.

Moreover, in volatile international markets like those following the 2007-2009 global financial crisis, the ability to seize opportunities quickly is paramount (Teece, 2014). Managers must bring appropriate resources to bear at the correct time in order to exploit fleeting

opportunities (Sirmon et al., 2007). Without unabsorbed slack that can be rapidly deployed when opportunities present themselves, firms may not be able to capitalize on them. Firms that are dependent on external actors for extra resources may lose time bargaining for and acquiring such resources, possibly missing the window of opportunity. However, firms that possess unabsorbed slack can bring it to bear quickly to exploit opportunities, improving their performance. For example, firms that used slack to engage in acquisition opportunities that arose as a result of the Asian Economic Crisis performed better than those that did not make acquisitions (Wan & Yiu, 2009).

Similarly, during periods of fast-paced market liberalization in certain emerging economies, firms with more slack exhibited better performance because they were able to capitalize on growth opportunities arising from the adoption of free-market policies (Banalieva, 2014). Furthermore, as discussed above, the institutional environment in emerging economies encourages such behavior, exemplified by emerging-economy MNEs' large-scale acquisitions. Given the resource-scarcity in their home countries, emerging-economy firms learn to invest extra resources very soon after it becomes available (Inoue et al., 2013).

Hence, although windows of opportunity may arise following the global financial crisis, and emerging-economy MNE subsidiaries may be more willing than developed-economy MNE subsidiaries to exploit them, a lack of resources could prevent the pursuit of some opportunities. Available unabsorbed slack will allow emerging-economy MNE subsidiaries to take more risks regarding fleeting opportunities because they can quickly deploy resources to pursue these opportunities, without having to wait to re-allocate valuable resources from other activities or acquire resources from external actors. In other words, unabsorbed slack supports emerging-economy firms' propensity to take risks, which is encouraged by volatile institutions in their

home countries, and enables them pursue opportunities. Unabsorbed slack will therefore enhance their advantage over developed-economy rivals. Thus:

*Hypothesis 3b: Unabsorbed slack will amplify the performance advantage of new emerging-economy MNE foreign subsidiaries in the years immediately following the 2007-2009 global financial crisis.*

To summarize our arguments, new foreign subsidiaries of developed-economy MNEs should have an advantage in the relatively normal macroeconomic period immediately preceding the 2007-2009 global financial crisis because their parent companies typically have well-developed firm-specific advantages, which can be exploited by subsidiaries in host markets. However, given their exposure to resource-scarce and volatile environments, emerging-economy MNEs should be better able to cope with crisis conditions, and this learned resilience can be transferred to their new subsidiaries, giving them an advantage during and immediately after the crisis, respectively. Additionally, slack resources will enhance this advantage in the crisis and post-crisis time periods. These theoretical relationships are shown in Figure 2.1.

-----  
Insert Figure 2.1 about Here  
-----

## **4. METHODOLOGY**

### **4.1 Sample**

New foreign subsidiaries were identified using Bloomberg Data Services. Bloomberg provides a computer system that allows users to remotely access real-time and historical filings from worldwide stock exchanges. Data collection was initiated by first screening firms that were listed as subsidiaries on their filings. Next, each subsidiary was verified as a foreign subsidiary by confirming it was owned by a parent firm headquartered in a different country. That is, subsidiaries operating within their parents' home countries were removed. Then, firms with

missing information regarding variables of interest at either the subsidiary or parent level were removed. Finally, in line with our focus on new foreign subsidiaries, we removed subsidiaries that were older than 15 years at the height of the 2007-2009 global financial crisis. The cut-off of 15 years reflects the typical time it takes before a new foreign subsidiary begins generating a return on investment for the parent company, after which a subsidiary could potentially be considered mature (Fang et al., 2010).

Within these constraints, we constructed three samples reflecting the time periods of interest: pre-crisis (2004-2006), in-crisis (2007-2009), and post-crisis (2010-2012). We designated 2007-2009 as the in-crisis years because this is when the global financial crisis was at its peak (Kuppuswamy & Villalonga, 2015). The final sample included 173 new foreign subsidiaries operating during the years 2004-2006, with the sample increasing to 190 in 2007-2009 and 258 in 2010-2012. Subsidiaries in the sample originated from six continents encompassing 47 home countries: 20 emerging and 27 developed, indicating a somewhat even split. Subsidiaries operated in 43 emerging markets and 43 developed markets, as well as in all 24 industry groups in the Global Industry Classification Standard (GICS).

#### **4.2 Measures**

The dependent variable of *performance* was operationalized as sales growth, consistent with other studies of foreign subsidiary performance (e.g., Delios, Xu, & Beamish, 2008; Nguyen & Rugman, 2015; Uhlenbruck, 2004). Sales growth is preferable as a dependent variable for *new* foreign subsidiaries in particular because “subsidiaries start out with market-seeking responsibilities (i.e., with the objective of selling the MNC’s [multinational corporation’s] products in the local market). . .” (Birkinshaw et al., 2005: 228). Hence, sales growth aligns with the performance goals of most new foreign subsidiaries. Measures of profitability, such as

return-on-assets, are problematic for new foreign subsidiaries because these ventures typically take up to 15 years before they begin to achieve a return on investment for the parent MNE (Fang et al., 2010). Hence, traditional measures of profitability may not adequately capture their performance. Additionally, the diversity of the home and host countries in the sample creates problems, as accounting standards can vary drastically across countries. Accordingly, sales growth is “the most comparable performance variable for subsidiaries in countries with strongly varying financial reporting regimes” (Uhlenbruck, 2004: 116). Finally, entrepreneurship studies indicate that growth is perhaps the most effective means of ameliorating the liability of newness that makes new ventures fragile (Gilbert, McDougall, & Audretsch, 2006), making it an ideal measure of new venture resilience. We therefore calculated the sales growth rate for each subsidiary over each of the three-year periods of interest as our dependent variable.

The primary independent variable capturing whether a foreign subsidiary was a developed- or *emerging-economy subsidiary* was operationalized using a dummy variable, with 1 indicating an emerging-economy firm, and 0 indicating a developed-economy firm. Emerging-economy status of each home country in the sample was determined using the International Monetary Fund’s list of emerging countries, which considers a broad range of criteria rather than just narrow economic cut-offs, such as GDP per capita (Ghemawat & Altman, 2016). Consequently, this operationalization is widely used in international business scholarship (e.g., George & Prabhu, 2000; Yamakawa, Khavul, Peng, & Deeds, 2013).

To measure the moderating variable of unabsorbed *slack*, we relied on the operationalization developed by Wan and Yiu (2009). We ran a principle components analysis with the variables of equity to debt ratio and cash flow divided by sales (averaged over each of

the three-year periods), and the resulting factor scores were used as the measure of unabsorbed slack.

We also included a number of control variables at the firm level that have been shown to affect subsidiary performance substantially: subsidiary and parent *age* (in years) and *size*, operationalized as the natural logarithm of total assets (Delios & Beamish, 2001; Liu et al., 2014; Zeng, Shenkar, Lee, & Song, 2013). We controlled for *parent performance* (industry-adjusted return-on-assets) and *parent experience* in the form of the number of foreign subsidiaries (Zeng et al., 2013), as well as subsidiary and parent *leverage* (Lang, Ofek, & Stulz, 1996). To regulate for any previously held advantages, we controlled for subsidiaries' *prior performance* by using performance from the previous three-year period in the analyses of in-crisis and post-crisis performance. Finally, to capture subsidiaries' unfamiliarity with the host market, we calculated the *institutional distance* between home and host country using Kogut and Singh's (1988) formula and data from the World Governance Indicators (e.g., Ang, Benischke, & Doh, 2015). All firm-level controls were averaged over each of the three-year time periods.

At the industry level, we controlled for *industry dynamism* by regressing the time period (1, 2, 3, etc.) against total industry sales, then dividing the standard error of the slope coefficient by mean industry sales (Datta, Guthrie, & Wright, 2005; Lepak, Takeuchi, & Snell, 2003). Second, *industry capital intensity* was calculated using the average ratio of fixed assets to sales in each industry (Datta et al., 2005; Lepak et al., 2003). Finally, because technological products may be more standardizable and therefore easier to sell in foreign markets (Jain, 1989), *industry technological intensity* was calculated by dividing total industry sales by total research and development expenditures (Lepak et al., 2003). To account for host-country effects, we controlled for *market size* (natural logarithm of GDP) and *market growth* by calculating the rate

of change in the GDP of each host country over each three-year time period (Zeng et al., 2013). Finally, because emerging-economy firms may have an advantage in other emerging economies (Hu, 1995), we measured whether each host country was an emerging economy using the operationalization discussed above. This ensures that any observed performance advantage of emerging-economy subsidiaries is not due to similarities uncaptured by the measure of institutional distance. Additionally, host-country effects on subsidiary performance can outweigh firm- and industry-level effects in emerging economies (Makino, Isobe, & Chan, 2004). Except for GDP growth (which measured change over each time period) and the emerging-economy host-country dummy (which did not vary over time), all industry and host-country variables were averaged over each of the three-year time periods. Descriptive statistics of all variable are displayed in Table 2.1.

-----  
Insert Table 2.1 about Here  
-----

### **4.3 Analytical Technique**

We employed two-level, cross-classified hierarchical linear modeling (HLM), a statistical method well-suited for nested data (Hox, 2010). Because foreign subsidiaries are nested within host countries and global industries, firms in the same country or industry may exhibit significant within-group homogeneity, violating the independence and homoscedasticity assumptions of ordinary least squares regression (Hox, 2010). To specify our models, all subsidiary-level variables were entered at level 1. Additionally, parent-level variables were included at level 1 because, in general, only a few subsidiaries in the sample shared the same parent company, meaning subsidiaries were generally not nested within shared parents. Both host-country and industry variables were entered at level 2, creating a cross-classified model consistent with other studies investigating country and industry effects (e.g., Goldszmidt, Brito, & de Vasconcelos,



2011). Cross-classification means there are multiple groupings at the second level of analysis, but these are not necessarily nested within each other (Hox, 2010). In this case, each subsidiary is nested in one host country and one industry, but host countries and industries are not nested in each other.

We calculated the intra-class correlation coefficient (ICC) for sales growth by running null models for each three-year period, where only variance components are estimated for each of the levels of analysis. The ICCs indicated that host-country groupings accounted for up to 14% and industry groupings up to 11.6% of variation in sales growth, depending on the period. By comparison, differences between firms account for up to 14% of variation. Prior to conducting analyses, we centered all industry and host-country variables at the grand mean (Hofmann & Gavin, 1998). We used group mean centering for firm-level variable to help account for structural differences in industries and host countries and allow for a more comparable examination of subsidiary performance (i.e., relative to host-country and industry peers).

#### **4.4 Results**

Table 2.2 shows the results of the models predicting performance in the pre-crisis period. Model 1 contains only control variables. In Model 2, the independent variable indicating an *emerging-economy subsidiary* was entered, which had a significant negative effect on performance ( $\beta = -0.808$ ;  $p < 0.05$ ). Consistent with Hypothesis 1, emerging-economy subsidiaries grew at a rate of 80% *less* than developed-economy MNE subsidiaries during the pre-crisis period. Additionally, deviance decreased significantly in Model 2. Deviance is a measure of model fit, with numbers closer to zero indicating better fit than numbers farther from zero. The difference in deviance between two models has a chi-square distribution, allowing for

a test of statistical significance using degrees of freedom, which is equal to the difference in the number of estimated parameters in the two models (Hox, 2010). Hence the statistically significant decrease in deviance from Model 1 to Model 2 (3.948;  $p < 0.05$ ) indicates improved model fit when the independent variable of *emerging-economy subsidiary* was entered.

-----  
 Insert Table 2.2 about Here  
 -----

In Table 2.3, results of models predicting in-crisis performance are displayed. When the independent variable of *emerging-economy subsidiary* was entered in Model 2, it had a significant and positive effect on performance ( $\beta = 0.438$ ;  $p < 0.01$ ). Additionally, deviance decreased significantly (8.603;  $p < 0.01$ ). Hence, Hypothesis 2a is supported, as new foreign subsidiaries of emerging-economy MNEs enjoyed an average of 40% greater sales growth over those of developed-economy MNEs. Next, an interaction term between *emerging-economy subsidiary* and *slack* was entered in Model 3 to test Hypothesis 2b; however, the interaction term was insignificant, so Hypothesis 2b is not supported by our data.

-----  
 Insert Table 2.3 about Here  
 -----

Table 2.4 shows the results of the models predicting post-crisis performance. The independent variable of *emerging-economy subsidiary* had no statistically significant effect on performance when it was entered in Model 2; therefore, Hypothesis 3a is not supported. However, the interaction term of *emerging-economy subsidiary* and *slack* was positive and significant in Model 3 ( $\beta = 4.931$ ;  $p < 0.01$ ). Moreover, deviance decreased significantly from Model 2 to Model 3 (54.505;  $p < 0.01$ ). Hence, Hypothesis 3b is supported.

-----  
 Insert Table 2.4 about Here  
 -----

To gain further insight into the nature of the moderating effect of slack, we plotted the interaction between emerging-economy subsidiary and slack using one standard deviation above and below the mean of the interacting variables (Aiken & West, 1991). This interaction plot is shown in Figure 2.2. Consistent with Hypothesis 3b, increasing levels of slack are associated with better emerging-economy subsidiary performance relative to developed-economy subsidiaries.

-----  
Insert Figure 2.2 about Here  
-----

To further rule out the potential effects of similarities between home and host country, we ran additional analyses wherein the host country variable at level 2 (emerging or developed) was interacted with the independent variable of *emerging-economy subsidiary* at level 1 for each time period under analysis. The coefficients of these interaction terms were not significant, providing further evidence that the performance effects described above were not driven by similarities between home and host country.

## 5. DISCUSSION

International entrepreneurship research has been noted for lacking longitudinal research of growth outcomes, especially using a diverse range of home countries to allow for comparisons (Terjesen et al., 2016.) Additionally, studies of corporate entrepreneurship are largely absent in this stream (Keupp & Gassmann, 2009). To better understand the corporate entrepreneurship-performance relationship over time, we took advantage of the natural experiment of the 2007-2009 global financial crisis to investigate the resilience of fragile international venturing activities on the part of MNEs. Specifically, we examined new foreign subsidiaries originating from 20 emerging economies and 27 developed economies and their operations before, during, and after the crisis. We found that subsidiaries of developed-economy MNEs had a performance

advantage heading into the crisis. However, this advantage dissipated during and after the crisis. Notably, emerging-economy subsidiaries performed better during the crisis. This advantage persisted after the crisis, contingent on firms' having sufficient slack resources. Next, we discuss the implications of these findings for scholars and practitioners.

### **5.1 Theoretical Implications**

Our primary theoretical contribution is that the home country institutional context has a strong and demonstrable influence on international venturing performance, even when the MNE parent is relatively established and mature. Ultimately, the source of many advantages of MNEs can be traced back to the institutions of the home country, and are thought to be especially crucial immediately following entry into a foreign country (Mallon & Fainshmidt, 2017). We provide empirical evidence of this by showing how coming from a developed or emerging economy shapes the resilience of new foreign subsidiaries during times of crisis.

The findings demonstrate that, to some extent, certain forms of advantage exist very early on for international venturing activities, depending on the home country. In particular, although new foreign subsidiaries are fragile, those originating from developed economies perform better under normal macroeconomic conditions, whereas those from emerging economies are inherently more resilient. Although there is a perception in the international entrepreneurship literature that firms internationalizing out of emerging economies are at a disadvantage due to the less-developed institutions in these countries (Kiss et al., 2012), our results show that emerging-economy entrepreneurial ventures possess a unique form of advantage under certain circumstances.

International entrepreneurship scholars should therefore consider how non-traditional advantages may help offset the lack of traditional advantages for emerging-economy firms. In

particular, more attention should be paid not just to how institutions (or lack thereof) in emerging economies *constrain* entrepreneurial activities, but also how they *enable* certain entrepreneurial activities, even in their absence. For example, resource scarcity in emerging economies may force ventures to learn bricolage techniques to create novel resource combinations based on limited available resources (Baker & Nelson, 2005). Such learned adaptation may have significant effects on emerging-economy ventures' long-term performance.

Our results also have implications for crisis management scholarship. Interestingly, although slack is thought to make firms more resilient to crises (Bourgeois, 1981; Meyer, 1982), we found that it did not affect organizational resilience *during* the 2007-2009 crisis; it only influenced performance *after* the crisis, and then only when deployed by firms that were already resilient during the crisis (i.e., emerging-economy subsidiaries). This suggests that resilience cannot be easily built by acquiring and deploying slack resources during a jolt, but rather may be a tacit capability that is at least partially engendered by institutional factors. In other words, slack will not help firms during a crisis if such firms are not already resilient. Rather, it appears to enhance the ability of resilient firms to bounce back following a crisis.

Very little is known about organizational resilience, particularly the effects of institutions on resilience (Bundy et al., 2016). Accordingly, scholars should investigate further the underlying aspects of the resilience of emerging-economy firms and their entrepreneurial activities, as well as how different institutions influence resilience. For example, researchers could examine the effects of home-country institutions on other types of international entrepreneurship, such as the internationalization of independent new ventures (i.e., those not launched from an existing organization), as well as the effects of other institutions, such as industry-level factors. Additionally, studies of the imprinting effects of home institutions on

international entrepreneurial activities could help explain resilience capabilities, as well as combine established knowledge of entrepreneurial cognition with international business theories to further strengthen the intersection of entrepreneurship and international business (Keupp & Gassmann, 2009).

This study may also help shed light on the success of MNEs, an important “big question” in international business research (Peng, 2004). A critical part of MNE success is the gaining and leveraging of knowledge from diverse international operations (Bartlett & Ghoshal, 1989). Subsidiaries play a crucial role in this process, as they “accumulate knowledge about foreign markets from their own experience in those markets. . . Such knowledge is then further accumulated at the parent level, serving as a knowledge reserve for the parent firm” (Kim et al., 2012: 720). However, these learning benefits cannot be gained if subsidiaries do not perform well and eventually contribute knowledge to the parent MNE. Hence, our study is important to MNE success in that it shows that some foreign subsidiaries are more resilient than others. Future research should investigate the implications of subsidiary resilience for MNE performance, such as whether resilience affects subsidiary learning and the age at which subsidiaries typically begin contributing knowledge to the MNE. If resilience is discovered to affect subsidiary learning, it may have important consequences for MNE performance.

Finally, our study has implications for literature on emerging-economy MNEs. In contrast to developed-economy MNEs, emerging-economy MNEs are generally thought to rely on advantages stemming directly from home-country institutions rather than firm-specific advantages (Cuervo-Cazurra, 2012). Yet, the identification of specific institutional advantages is lacking (Luo & Zhang, 2016). The findings here may be among the first to show a specific form of institutional advantage – resilience – that is generalizable to MNE subsidiaries from a number

of emerging economies. Research that investigates whether this resilience translates into superior, persistent performance for older subsidiaries and for parent MNEs would help further explain the success of emerging-economy MNEs more generally. Additionally, the long-term learning implications for subsidiaries and parents is unclear. For example, does the increased resilience of their new foreign subsidiaries accelerate learning or resource-building for emerging-economy MNEs? Moreover, the evidence in this study of enhanced resilience for emerging-economy firms broadly supports the notion of institutions as an important influence on competitive advantages (Martin, 2014), suggesting that scholars should seek to identify other institution-based advantages that may be unique to emerging-economy MNEs and their subsidiaries.

## **5.2 Managerial Implications**

Practitioners also benefit from the findings uncovered here. Managers of emerging-economy MNEs and their subsidiaries may not be aware that their international venturing activities tend to be more resilient than those of developed-economy rivals. Hence, in times or places characterized by crisis-like conditions, managers can operate with more confidence. Investments in growth opportunities should perhaps not be delayed under such circumstances. On other hand, managers of developed-economy firms should be careful not to take for granted their general advantage during normal economic periods. They may wish to learn how to imitate certain aspects of emerging-economy rivals to improve resilience. For example, they could engage in strategic alliances with emerging-economy firms to buffer themselves during times of crisis, and to learn about resilience capabilities. Additionally, given the institutional origins of resilience, developed-economy MNEs could consider entering emerging markets to develop knowledge about resilience through their subsidiaries' experience.

## 6. CONCLUSION

International venturing is a beneficial, yet risky, activity. Using the natural experiment of the 2007-2009 global financial crisis, we sought to understand the resilience of new foreign subsidiaries and compare it across firms from developed and emerging-economies. In contrast to a traditional view of institutions as constraints on firm strategy, our findings highlight the role of institutions as enabling factors for successful international venturing. Whereas new foreign subsidiaries of developed-economy MNEs had an institutional advantage before the crisis due to access to advanced financial and technological institutions, new foreign subsidiaries of emerging-economy MNEs performed better during the crisis and in its aftermath (provided they had slack resources), likely engendered by the volatile and resource-scarce institutional environments of their home countries. By exploring the role of institutions in resilience, firms can be better prepared to engage in international venturing and to protect themselves from future crises.



## 7. REFERENCES: ESSAY 2

- Aiken, L. S., & West, S. G. 1991. *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Andersson, U., Forsgren, M., & Holm, U. 2002. The strategic impact of external networks: subsidiary performance and competence development in the multinational corporation. *Strategic Management Journal*, 23(11): 979-996.
- Ang, S. H., Benischke, M. H., & Doh, J. P. 2015. The interactions of institutions on foreign market entry mode. *Strategic Management Journal*, 36(10): 1536-1553.
- Aragón-Correa, J. A., & Sharma, S. 2003. A contingent resource-based view of proactive corporate environmental strategy. *Academy of Management Review*, 28(1): 71-88.
- Audia, P. G., Locke, E. A., & Smith, K. G. 2000. The paradox of success: An archival and a laboratory study of strategic persistence following radical environmental change. *Academy of Management Journal*, 43(5): 837-853.
- Baker, T., & Nelson, R. E. 2005. Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3): 329-366.
- Ball, L. M. 2014. Long-term damage from the Great Recession in OECD countries: National Bureau of Economic Research.
- Banalieva, E. R. 2014. Embracing the second best? Synchronization of reform speeds, excess high discretion slack, and performance of transition economy firms. *Global Strategy Journal*, 4(2): 104-126.
- Barker III, V. L., & Duhaim, I. M. 1997. Strategic change in the turnaround process: Theory and empirical evidence. *Strategic Management Journal*, 18(1): 13-38.

- Bartlett, C. A., & Ghoshal, S. 1989. *Managing across borders: The transnational solution*. Cambridge, MA: Harvard Business School Press.
- Bartram, S. M., & Bodnar, G. M. 2009. No place to hide: The global crisis in equity markets in 2008/2009. *Journal of International Money and Finance*, 28(8): 1246-1292.
- Birkinshaw, J., Hood, N., & Young, S. 2005. Subsidiary entrepreneurship, internal and external competitive forces, and subsidiary performance. *International Business Review*, 14(2): 227-248.
- Bourgeois, L. J. 1981. On the measurement of organizational slack. *Academy of Management Review*, 6(1): 29-39.
- Bowen, H. P., & De Clercq, D. 2008. Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies*, 39(4): 747-767.
- Bundy, J., Pfarrer, M. D., Short, C. E., & Coombs, W. T. 2016. Crises and crisis management: Integration, interpretation, and research development. *Journal of Management*, 10.1177/0149206316680030.
- Cerra, V., & Saxena, S. C. 2008. Growth dynamics: the myth of economic recovery. *The American Economic Review*, 98(1): 439-457.
- Chung, C. C., Lu, J. W., & Beamish, P. W. 2008. Multinational networks during times of economic crisis versus stability. *Management International Review*, 48(3): 279-296.
- Contractor, F. J. 2013. "Punching above their weight:" The sources of competitive advantage for emerging market multinationals. *International Journal of Emerging Markets*, 8(4): 304-328.
- Cuervo-Cazurra, A. 2006. Who cares about corruption? *Journal of International Business Studies*, 37(6): 807-822.

- Cuervo-Cazurra, A., & Genc, M. 2008. Transforming disadvantages into advantages: developing-country MNEs in the least developed countries. *Journal of International Business Studies*, 39(6): 957-979.
- Cuervo-Cazurra, A. 2012. Extending theory by analyzing developing country multinational companies: Solving the Goldilocks debate. *Global Strategy Journal*, 2(3): 153-167.
- Cukierman, A. 2013. Monetary policy and institutions before, during, and after the global financial crisis. *Journal of Financial Stability*, 9(3): 373-384.
- Cyert, R. M., & March, J. G. 1963. *A behavioral theory of the firm*. Englewood Cliffs: Prentice-Hall.
- Datta, D. K., Guthrie, J. P., & Wright, P. M. 2005. Human resource management and labor productivity: Does industry matter? *Academy of Management Journal*, 48(1): 135-145.
- Delios, A., & Beamish, P. W. 2001. Survival and profitability: The roles of experience and intangible assets in foreign subsidiary performance. *Academy of Management Journal*, 44(5): 1028-1038.
- Delios, A., Xu, D., & Beamish, P. W. 2008. Within-country product diversification and foreign subsidiary performance. *Journal of International Business Studies*, 39(4): 706-724.
- Demirgüç-Kunt, A., & Maksimovic, V. 1999. Institutions, financial markets, and firm debt maturity. *Journal of Financial Economics*, 54(3): 295-336.
- Dess, G. G., & Beard, D. W. 1984. Dimensions of organizational task environments. *Administrative Science Quarterly*, 29(1): 52-73.
- Dikova, D., Smeets, R., Garretsen, H., & Van Ees, H. 2013. Immediate responses to financial crises: A focus on US MNE subsidiaries. *International Business Review*, 22(1): 202-215.

- Doukas, J. A. 1989. Syndicated Euro-credit sovereign risk assessments, market efficiency and contagion effects. *Journal of International Business Studies*, 20(2): 255-267.
- Dunning, J. H. 1980. Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, 11(1): 9-31.
- Dunning, J. H. 2009. Location and the multinational enterprise: a neglected factor? *Journal of International Business Studies*, 40(1): 5-19.
- Fang, Y., Jiang, G. L. F., Makino, S., & Beamish, P. W. 2010. Multinational firm knowledge, use of expatriates, and foreign subsidiary performance. *Journal of Management Studies*, 47(1): 27-54.
- Fang, Y., Wade, M., Delios, A., & Beamish, P. W. 2013. An exploration of multinational enterprise knowledge resources and foreign subsidiary performance. *Journal of World Business*, 48(1): 30-38.
- Furman, J. L., Porter, M. E., & Stern, S. 2002. The determinants of national innovative capacity. *Research Policy*, 31(6): 899-933.
- Garelli, S. 2009. IMD world competitiveness yearbook 2009. *Lausanne: International Institute for Management Development*, 543.
- Geleilate, J.-M. G., Magnusson, P., Parente, R. C., & Alvarado-Vargas, M. J. 2016. Home country institutional effects on the multinationality–performance relationship: A comparison between emerging and developed market multinationals. *Journal of International Management*, 22(4): 380-402.
- George, G. 2005. Slack resources and the performance of privately held firms. *Academy of Management Journal*, 48(4): 661-676.

- George, G., & Prabhu, G. N. 2000. Developmental financial institutions as catalysts of entrepreneurship in emerging economies. *Academy of Management Review*, 25(3): 620-629.
- Ghemawat, P., & Altman, S. A. 2016. Emerging economies: Differences and distances. *AIB Insights*, 16(4): 7-10.
- Gilbert, B. A., McDougall, P. P., & Audretsch, D. B. 2006. New venture growth: A review and extension. *Journal of Management*, 32(6): 926-950.
- Goldszmidt, R. G. B., Brito, L. A. L., & de Vasconcelos, F. C. 2011. Country effect on firm performance: A multilevel approach. *Journal of Business Research*, 64(3): 273-279.
- Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M., & Chittoor, R. 2010. Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms. *Journal of International Business Studies*, 41(3): 397-418.
- Guillén, M. F. 2002. Structural inertia, imitation, and foreign expansion: South Korean firms and business groups in China, 1987–1995. *Academy of Management Journal*, 45(3): 509-525.
- Guillén, M. F., & García-Canal, E. 2009. The American model of the multinational firm and the “new” multinationals from emerging economies. *Academy of Management Perspectives*, 23(2): 23-35.
- Hall, P. A., & Soskice, D. 2001. *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford: Oxford University Press.
- Hofmann, D. A., & Gavin, M. B. 1998. Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24(5): 623-641.

Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. 2000. Strategy in emerging economies.

*Academy of Management Journal*, 43(3): 249-267.

Howard, G., Martin, R., & Wilson, B. A. 2011. Are recoveries from banking and financial crises really so different? Federal Reserve Board.

Hox, J. J. 2010. *Multilevel analysis: Techniques and applications* (2nd ed.). New York: Routledge.

Hu, Y.-S. 1995. The international transferability of the firm's advantages. *California Management Review*, 37(4): 73-88.

Inoue, C., Lazzarini, S., & Musacchio, A. 2013. Leviathan as a minority shareholder: Firm-level implications of equity purchases by the state. *Academy of Management Journal*, 56(6): 1775-1801.

Jain, S. C. 1989. Standardization of international marketing strategy: some research hypotheses. *The Journal of Marketing*, 53(1): 70-79.

Johanson, J., & Vahlne, J.-E. 1977. The internationalization process of the firm-a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1): 23-32.

Kapferer, J.-N., & Bastien, V. 2009. The specificity of luxury management: Turning marketing upside down. *Journal of Brand Management*, 16(5-6): 311-322.

Keupp, M. M., & Gassmann, O. 2009. The past and the future of international entrepreneurship: A review and suggestions for developing the field. *Journal of Management*, 35(3): 600-633.

- Kim, H., Hoskisson, R. E., & Lee, S. H. 2015. Why strategic factor markets matter: “New” multinationals' geographic diversification and firm profitability. *Strategic Management Journal*, 36(4): 518-536.
- Kim, Y.-C., Lu, J. W., & Rhee, M. 2012. Learning from age difference: Interorganizational learning and survival in Japanese foreign subsidiaries. *Journal of International Business Studies*, 43(8): 719-745.
- Kirca, A. H., Hult, G. T. M., Roth, K., Cavusgil, S. T., Perry, M. Z., Akdeniz, M. B., Deligonul, S. Z., Mena, J. A., Pollitte, W. A., & Hoppner, J. J. 2011. Firm-specific assets, multinationality, and financial performance: A meta-analytic review and theoretical integration. *Academy of Management Journal*, 54(1): 47-72.
- Kiss, A. N., Danis, W. M., & Cavusgil, S. T. 2012. International entrepreneurship research in emerging economies: A critical review and research agenda. *Journal of Business Venturing*, 27(2): 266-290.
- Knight, G. A., & Cavusgil, S. T. 2004. Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2): 124-141.
- Kogut, B., & Singh, H. 1988. The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, 19(3): 411-432.
- Kogut, B., & Zander, U. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies*, 24(4): 625-645.
- Kostova, T., & Roth, K. 2002. Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of Management Journal*, 45(1): 215-233.

- Kunc, M., & Bhandari, R. 2011. Strategic development processes during economic and financial crisis. *Management Decision*, 49(8): 1343-1353.
- Kuppuswamy, V., & Villalonga, B. 2015. Does diversification create value in the presence of external financing constraints? Evidence from the 2007–2009 financial crisis. *Management Science*, 62(4): 905-923.
- Lang, L., Ofek, E., & Stulz, R. 1996. Leverage, investment, and firm growth. *Journal of Financial Economics*, 40(1): 3-29.
- Lepak, D. P., Takeuchi, R., & Snell, S. A. 2003. Employment flexibility and firm performance: Examining the interaction effects of employment mode, environmental dynamism, and technological intensity. *Journal of Management*, 29(5): 681-703.
- Li, J. 1995. Foreign entry and survival: Effects of strategic choices on performance in international markets. *Strategic Management Journal*, 16(5): 333-351.
- Liu, X., Gao, L., Lu, J., & Lioliou, E. 2014. Does learning at home and from abroad boost the foreign subsidiary performance of emerging economy multinational enterprises? *International Business Review*, 24(1): 141–151.
- London, T., & Hart, S. L. 2004. Reinventing strategies for emerging markets: Beyond the transnational model. *Journal of International Business Studies*, 35(5): 350-370.
- Luo, Y. 2001. Determinants of local responsiveness: Perspectives from foreign subsidiaries in an emerging market. *Journal of Management*, 27(4): 451-477.
- Luo, Y., & Rui, H. 2009. An ambidexterity perspective toward multinational enterprises from emerging economies. *Academy of Management Perspectives*, 23(4): 49-70.
- Luo, Y., Sun, J., & Wang, S. L. 2011. Emerging economy copycats: Capability, environment, and strategy. *Academy of Management Perspectives*, 25(2): 37-56.



- Luo, Y., & Tung, R. L. 2007. International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4): 481-498.
- Luo, Y., & Zhang, H. 2016. Emerging market MNEs: Qualitative review and theoretical directions. *Journal of International Management*, 22(4): 333–350.
- Madhok, A., & Keyhani, M. 2012. Acquisitions as entrepreneurship: Asymmetries, opportunities, and the internationalization of multinationals from emerging economies. *Global Strategy Journal*, 2(1): 26-40.
- Makino, S., Isobe, T., & Chan, C. M. 2004. Does country matter? *Strategic Management Journal*, 25(10): 1027-1043.
- Mallon, M. R., & Fainshmidt, S. 2017. Assets of foreignness: A theoretical integration and agenda for future research. *Journal of International Management*, 23(1): 43-55.
- Markman, G. M., & Venzin, M. 2014. Resilience: Lessons from banks that have braved the economic crisis—And from those that have not. *International Business Review*, 23(6): 1096-1107.
- Martin, X. 2014. Institutional advantage. *Global Strategy Journal*, 4(1): 55-69.
- Meyer, A. D. 1982. Adapting to environmental jolts. *Administrative Science Quarterly*, 27(4): 515-537.
- Meyer, K. E., & Peng, M. W. 2016. Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 47(1): 3-22.
- Morck, R., & Yeung, B. 1991. Why investors value multinationality. *Journal of Business*, 64(2): 165-187.

- Nguyen, Q. T., & Rugman, A. M. 2015. Internal equity financing and the performance of multinational subsidiaries in emerging economies. *Journal of International Business Studies*, 46(4): 468-490.
- North, D. C. 1990. *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- OECD. 2016. FDI down 5% in the first half of 2016.
- Oviatt, B. M., & McDougall, P. P. 2005. Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice*, 29(5): 537-554.
- Park, S. H., Chen, R. R., & Gallagher, S. 2002. Firm resources as moderators of the relationship between market growth and strategic alliances in semiconductor start-ups. *Academy of Management Journal*, 45(3): 527-545.
- Patton, M. 2014. Why the next financial crisis could be worse than 2008. *Forbes*.  
<http://www.forbes.com/sites/mikepatton/2014/02/11/why-the-next-financial-crisis-could-be-worse-than-2008/>. Accessed April 10, 2016.
- Peng, G. Z., & Beamish, P. W. 2014. MNC subsidiary size and expatriate control: Resource-dependence and learning perspectives. *Journal of World Business*, 49(1): 51-62.
- Peng, M. W. 2004. Identifying the big question in international business research. *Journal of International Business Studies*, 35(2): 99-108.
- Peng, M. W., Wang, D. Y., & Jiang, Y. 2008. An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, 39(5): 920-936.
- Penrose, E. T. 1959. *The theory of the growth of the firm*. Oxford: Blackwell.

Petersen, B., Pedersen, T., & Lyles, M. A. 2008. Closing knowledge gaps in foreign markets.

*Journal of International Business Studies*, 39(7): 1097-1113.

Pfeffer, J., & Salancik, G. 1978. *The external control of organizations: A resource dependence perspective*. Stanford: Harper & Row.

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

Ramamurti, R. 2012. What is really different about emerging market multinationals? *Global Strategy Journal*, 2(1): 41-47.

Riaz, S., Buchanan, S., & Bapuji, H. 2011. Institutional work amidst the financial crisis: emerging positions of elite actors. *Organization*, 18(2): 187-214.

Rose, A. K., & Spiegel, M. M. 2011. Cross-country causes and consequences of the crisis: An update. *European Economic Review*, 55(3): 309-324.

Rose, A. K., & Spiegel, M. M. 2012. Cross-country causes and consequences of the 2008 crisis: Early warning. *Japan and the World Economy*, 24(1): 1-16.

Schwert, G. W. 1989. *Business cycles, financial crises, and stock volatility*. Paper presented at the Carnegie-Rochester Conference Series on Public Policy.

Sethi, D., & Judge, W. 2009. Reappraising liabilities of foreignness within an integrated perspective of the costs and benefits of doing business abroad. *International Business Review*, 18(4): 404-416.

Sharma, P., & Chrisman, J. J. 1999. Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(3): 11-11.

- Sine, W. D., & David, R. J. 2003. Environmental jolts, institutional change, and the creation of entrepreneurial opportunity in the US electric power industry. *Research Policy*, 32(2): 185-207.
- Sirmon, D. G., Hitt, M. A., & Ireland, R. D. 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review*, 32(1): 273-292.
- Stan, C. V., Peng, M. W., & Bruton, G. D. 2014. Slack and the performance of state-owned enterprises. *Asia Pacific Journal of Management*, 31(2): 473-495.
- Sun, S. L., Peng, M. W., Ren, B., & Yan, D. 2012. A comparative ownership advantage framework for cross-border M&As: The rise of Chinese and Indian MNEs. *Journal of World Business*, 47(1): 4-16.
- Tan, J. 2003. Curvilinear relationship between organizational slack and firm performance:: Evidence from Chinese state enterprises. *European Management Journal*, 21(6): 740-749.
- Tan, J., & Peng, M. W. 2003. Organizational slack and firm performance during economic transitions: Two studies from an emerging economy. *Strategic Management Journal*, 24(13): 1249-1263.
- Tata Global Beverages. 2010. Annual Report 2009/2010.
- Teece, D. J. 2014. A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, 45(1): 8-37.
- Temouri, Y., Driffield, N., & Bhaumik, S. K. 2016. A strategic perspective of cross-listing by emerging market firms: Evidence from Indonesia, Mexico, Poland and South Africa. *Journal of International Management*, 22(3): 265-279.

- Terjesen, S., Hessels, J., & Li, D. 2016. Comparative international entrepreneurship: A review and research agenda. *Journal of Management*, 42(1): 299-344.
- The Economist. 2016. The high economic costs of India's demonetisation. <http://www.economist.com/news/finance-and-economics/21713842-benefits-withdrawing-86-rupees-circulation-remain-elusive>. Accessed January 9, 2017.
- Tonoyan, V., Strohmeyer, R., Habib, M., & Perlitz, M. 2010. Corruption and entrepreneurship: How formal and informal institutions shape small firm behavior in transition and mature market economies. *Entrepreneurship Theory and Practice*, 34(5): 803-831.
- Uhlenbruck, K. 2004. Developing acquired foreign subsidiaries: The experience of MNEs in transition economies. *Journal of International Business Studies*, 35(2): 109-123.
- Vanacker, T., Collewaert, V., & Zahra, S. A. 2016. Slack resources, firm performance, and the institutional context: Evidence from privately held European firms. *Strategic Management Journal*.
- Vernon, R. 1979. The product cycle hypothesis in a new international environment. *Oxford Bulletin of Economics and Statistics*, 41(4): 255-267.
- Wan, W. P., & Yiu, D. W. 2009. From crisis to opportunity: Environmental jolt, corporate acquisitions, and firm performance. *Strategic Management Journal*, 30(7): 791-801.
- Wiersema, M. F., & Bowen, H. P. 2008. Corporate diversification: The impact of foreign competition, industry globalization, and product diversification. *Strategic Management Journal*, 29(2): 115-132.
- Witt, M. A., & Lewin, A. Y. 2007. Outward foreign direct investment as escape response to home country institutional constraints. *Journal of International Business Studies*, 38(4): 579-594.

- Wright, M., Filatotchev, I., Hoskisson, R. E., & Peng, M. W. 2005. Strategy research in emerging economies: Challenging the conventional wisdom. *Journal of Management Studies*, 42(1): 1-33.
- Wright, M., Pruthi, S., & Lockett, A. 2005. International venture capital research: From cross-country comparisons to crossing borders. *International Journal of Management Reviews*, 7(3): 135-165.
- Yamakawa, Y., Khavul, S., Peng, M. W., & Deeds, D. L. 2013. Venturing from emerging economies. *Strategic Entrepreneurship Journal*, 7(3): 181-196.
- Yildiz, H. E., & Fey, C. F. 2012. The liability of foreignness reconsidered: New insights from the alternative research context of transforming economies. *International Business Review*, 21(2): 269-280.
- Yiu, D. W., Lau, C., & Bruton, G. D. 2007. International venturing by emerging economy firms: The effects of firm capabilities, home country networks, and corporate entrepreneurship. *Journal of International Business Studies*, 38(4): 519-540.
- Zahra, S. A., & Garvis, D. M. 2000. International corporate entrepreneurship and firm performance: The moderating effect of international environmental hostility. *Journal of Business Venturing*, 15(5-6): 469-492.
- Zahra, S. A., Ireland, R. D., & Hitt, M. A. 2000. International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43(5): 925-950.
- Zeng, Y., Shenkar, O., Lee, S.-H., & Song, S. 2013. Cultural differences, MNE learning abilities, and the effect of experience on subsidiary mortality in a dissimilar culture: Evidence from Korean MNEs. *Journal of International Business Studies*, 44(1): 42-65.

Zhao, M. 2006. Conducting R&D in countries with weak intellectual property rights protection.

*Management Science*, 52(8): 1185-1199.

**Table 2.1. Descriptive Statistics**

Variable	Mean	S.D.	1	2	3	4	5	6	7	8
1. Subsidiary Performance	0.39	1.05	1.00							
2. Emerging-economy subsidiary	0.30	0.46	0.06	1.00						
3. Subsidiary age	10.27	4.89	0.03	-0.10	1.00					
4. Subsidiary size	2.73	0.91	-0.10	0.07	0.06	1.00				
5. Subsidiary leverage	3.61	3.23	0.11	0.04	0.08	0.36*	1.00			
6. Prior performance	0.13	14.68	0.02	0.03	0.05	0.12	-0.10	1.00		
7. Subsidiary slack	0.04	0.73	0.03	-0.02	0.03	-0.01	0.30*	-0.07	1.00	
8. Parent age	29.51	30.76	-0.07	-0.01	0.14*	0.17*	0.21*	0.05	0.16*	1.00
9. Parent size	4.46	1.34	0.02	0.13*	0.08	0.50*	0.24*	0.14*	0.04	0.26*
10. Parent leverage	9.27	35.35	0.14*	-0.06	0.05	-0.08	0.04	-0.14*	-0.01	0.02
11. Parent performance	-1.64	12.91	0.05	0.09	0.09	0.23*	0.01	0.32*	0.04	0.12*
12. Parent experience	1.70	1.15	-0.01	-0.19*	0.17*	0.10	0.20*	0.15*	0.06	0.37*
13. Institutional distance	1.83	1.73	-0.07	0.04	0.07	-0.02	0.01	0.12	0.21*	0.02
14. Industry technological intensity	0.01	0.01	-0.04	-0.07	-0.03	-0.13*	-0.23*	0.08	0.01	-0.12
15. Industry dynamism	7.20	18.33	-0.04	-0.03	-0.01	-0.20*	-0.14*	0.06	-0.03	-0.15*
16. Industry capital intensity	0.72	0.67	0.05	-0.02	-0.12	0.11	-0.24*	-0.08	-0.02	-0.20*
17. Host size	11.76	0.86	-0.08	0.06	-0.15*	0.07	-0.25*	-0.12*	-0.01	-0.13*
18. Host growth	5.60	2.63	-0.01	0.13*	0.02	0.08	-0.04	0.09	-0.12*	0.02
19. Host emerging economy	0.56	0.45	0.03	-0.09	0.20*	0.09	0.17*	0.27*	-0.08	0.12

Note: \*  $p < 0.05$  (two-tailed). N=258.



Table 2.1. Continued

Variable	9	10	11	12	13	14	15	16	17	18
1. Subsidiary Performance										
2. Emerging-economy subsidiary										
3. Subsidiary age										
4. Subsidiary size										
5. Subsidiary leverage										
6. Prior performance										
7. Subsidiary slack										
8. Parent age										
9. Parent size	1.00									
10. Parent leverage	-0.06	1.00								
11. Parent performance	0.34*	-0.15*	1.00							
12. Parent experience	0.35*	0.04	0.07	1.00						
13. Institutional distance	0.15*	0.03	0.14*	0.11	1.00					
14. Industry technological intensity	-0.06	-0.07	-0.03	-0.10	0.13*	1.00				
15. Industry dynamism	-0.31*	-0.06	-0.06	-0.20*	-0.16*	-0.10	1.00			
16. Industry capital intensity	-0.10	-0.06	-0.15*	-0.18*	-0.05	0.05	0.09	1.00		
17. Host size	-0.08	-0.07	-0.06	-0.32*	-0.02	0.12	0.08	0.18*	1.00	
18. Host growth	0.15*	-0.10	0.11	0.06	0.26*	-0.03	-0.05	-0.11	-0.04	1.00
19. Host emerging economy	0.28*	-0.07	0.13*	0.23*	0.19*	-0.02	-0.24*	-0.17*	-0.42*	0.44*

Note: \*  $p < 0.05$  (two-tailed). N=258.

**Table 2.2. Pre-crisis Performance of New Foreign Subsidiaries (2004-2006)**

Level	Variable	Model 1	Model 2
	Intercept	0.969 (0.480)*	1.273 (0.502)*
	Emerging Market	-0.213 (0.599)	0.428 (0.603)
Country	Market Size	0.412 (0.241)†	0.434 (0.238)†
	Market Growth	0.035 (0.088)	0.081 (0.090)
	Technological Intensity	-5.284 (12.142)	-7.133 (12.188)
Industry	Dynamism	-0.009 (0.016)	-0.013 (0.016)
	Capital Intensity	0.001 (0.513)	-0.091 (0.519)
	Subsidiary Size	0.061 (0.211)	0.059 (0.209)
	Subsidiary Age	-0.118 (0.053)*	-0.134 (0.053)*
	Subsidiary Leverage	-0.002 (0.046)	0.002 (0.045)
	Subsidiary Slack	0.064 (2.44)	-0.012 (2.408)
	Institutional Distance	-0.023 (0.138)	-0.007 (0.137)
Firm	Parent Size	0.057 (0.125)	0.046 (0.123)
	Parent Age	-0.009 (0.006)	-0.009 (0.006)
	Parent Foreign Experience	0.243 (0.161)	0.193 (0.161)
	Parent Performance	0.002 (0.015)	0.003 (0.01)
	Parent Leverage	-0.001 (0.006)	-0.001 (0.006)
	Emerging-economy Sub.		-0.808 (0.404)*
	<i>N</i>	173	173
	Deviance	764.733	760.785
	$\chi^2$ Statistic Change		3.948*

Note: Values represent unstandardized coefficients with corresponding standard errors in parentheses. † $p < 0.10$ ; \* $p < 0.05$ ; \*\* $p < 0.01$  (one-tailed significance tests).

**Table 2.3. In-crisis Performance of New Foreign Subsidiaries (2007-2009)**

Level	Variable	Model 1	Model 2	Model 3
	Intercept	0.162 (0.087)†	0.055 (0.092)	0.058 (0.092)
	Emerging Market	0.061 (0.202)	0.147 (0.199)	0.140 (0.20)
Country	Market Size	0.054 (0.085)	0.044 (0.083)	0.047 (0.083)
	Market Growth	0.042 (0.031)	0.020 (0.031)	0.012 (0.031)
	Technological Intensity	5.44 (6.963)	7.649 (6.843)	7.093 (6.940)
Industry	Dynamism	-0.004 (0.005)	-0.002 (0.005)	-0.003 (0.005)
	Capital Intensity	0.027 (0.100)	0.053 (0.098)	0.056 (0.098)
	Subsidiary Size	-0.001 (0.079)	0.013 (0.077)	0.019 (0.078)
	Subsidiary Age	-0.015 (0.020)	-0.007 (0.020)	-0.001 (0.020)
	Subsidiary Leverage	-0.004 (0.013)	-0.009 (0.012)	-0.009 (0.012)
	Subsidiary Slack	0.051 (0.061)	0.080 (0.060)	0.002 (0.176)
	Subsidiary Prior Performance	0.003 (0.005)	0.002 (0.004)	0.001 (0.004)
	Institutional Distance	0.111 (0.052)*	0.102 (0.051)*	0.102 (0.051)*
Firm	Parent Size	-0.061 (0.053)	-0.063 (0.052)	-0.065 (0.052)
	Parent Age	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)
	Parent Foreign Experience	0.040 (0.063)	0.073 (0.062)	0.074 (0.062)
	Parent Performance	0.003 (0.007)	0.001 (0.007)	0.002 (0.007)
	Parent Leverage	0.001 (0.003)	0.002 (0.003)	0.002 (0.002)
	Emerging-Economy Sub.		0.438 (0.148)**	0.443 (0.148)**
	Slack X Emerging-Economy			0.087 (0.184)
	<i>N</i>	190	190	190
	Deviance	477.778	469.175	468.953
	$\chi^2$ Statistic Change		8.603**	0.222

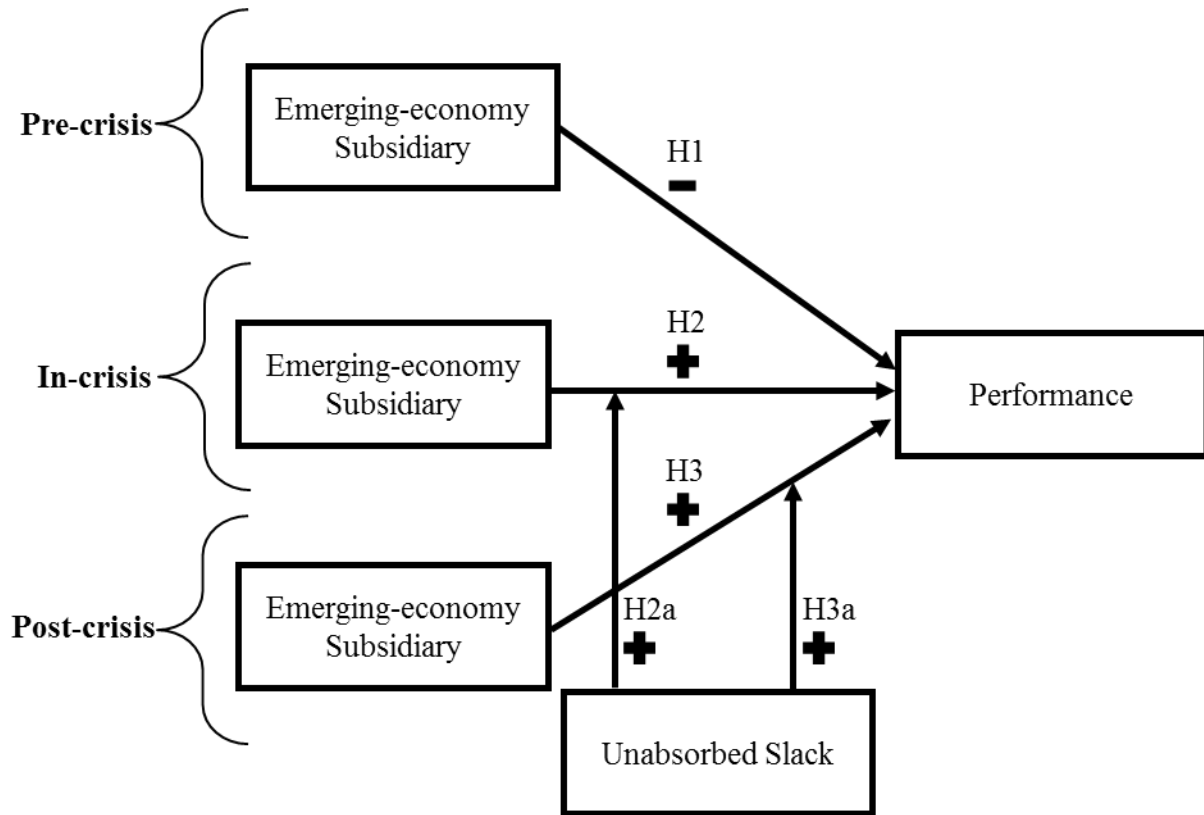
Note: Values represent unstandardized coefficients with corresponding standard errors in parentheses.  
†p < 0.10; \*p < 0.05; \*\*p < 0.01 (one-tailed significance tests).

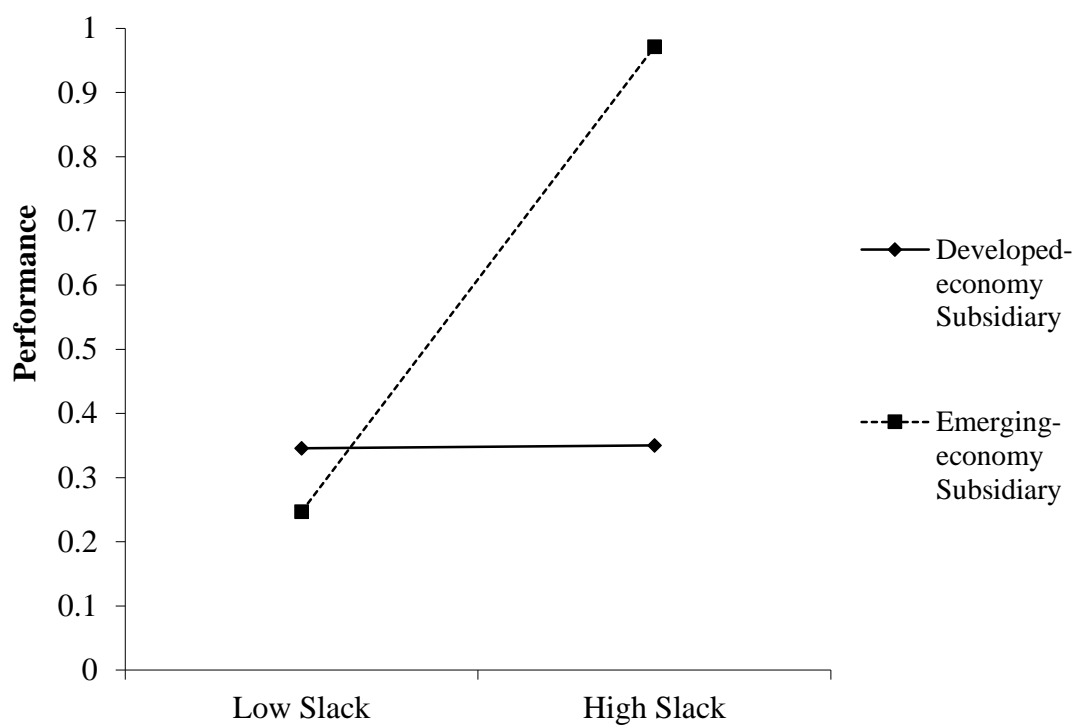
**Table 2.4. Post-crisis Performance of New Foreign Subsidiaries (2010-2012)**

Level	Variable	Model 1	Model 2	Model 3
	Intercept	0.260 (0.196)	0.21 (0.201)	0.347 (0.155)**
	Emerging Market	0.131 (0.255)	0.144 (0.253)	-0.051 (0.180)
Country	Market Size	-0.103 (0.131)	-0.103 (0.130)	-0.008 (0.085)
	Market Growth	-0.014 (0.047)	-0.019 (0.047)	0.0141 (0.030)
	Technological Intensity	-4.02 (5.94)	-3.442 (5.963)	-4.729 (5.687)
Industry	Dynamism	-0.002 (0.004)	-0.001 (0.004)	-0.003 (0.003)
	Capital Intensity	0.207 (0.102)†	0.211 (0.102)*	0.116 (0.092)
	Subsidiary Size	-0.267 (0.09)**	-0.268 (0.092)**	-0.194 (0.077)**
	Subsidiary Age	0.001 (0.014)	0.002 (0.014)	0.003 (0.013)
	Subsidiary Leverage	0.044 (0.024)†	0.043 (0.024)†	-0.002 (0.022)
	Subsidiary Slack	0.082 (0.092)	0.0812 (0.091)	0.031 (0.082)
	Subsidiary Prior Performance	0.008 (0.005)†	0.008 (0.005)	0.010 (0.004)**
	Institutional Distance	-0.052 (0.046)	-0.056 (0.046)	-0.062 (0.041)
Firm	Parent Size	0.076 (0.062)	0.071 (0.062)	0.021 (0.049)
	Parent Age	-0.003 (0.002)	-0.003 (0.002)	-0.002 (0.002)
	Parent Foreign Experience	-0.020 (0.069)	-0.006 (0.070)	0.036 (0.065)
	Parent Performance	0.010 (0.005)*	0.010 (0.005)**	0.005 (0.004)
	Parent Leverage	0.006 (0.002)**	0.006 (0.002)**	0.005 (0.002)**
	Emerging-Economy Sub.		0.141 (0.139)	0.064 (0.129)
	Slack X Emerging-Economy			4.931 (0.608)**
		<i>N</i>	258	258
	Deviance	731.730	730.705	676.120
	$\chi^2$ Statistic Change		1.026	54.505**

Note: Values represent unstandardized coefficients with corresponding standard errors in parentheses.  
†p < .10; \*p < .05; \*\*p < .01 (one-tailed significance tests).

**Figure 2.1. Theoretical Framework of New Foreign Subsidiary Performance**



**Figure 2.2 Moderating Effect of Slack on Performance During Post-Crisis Period**

## VITA

### Mark Robert Mallon

Old Dominion University, 2111 Constant Hall, Strome College of Business, Norfolk, VA 23529

e-mail: mmallon@odu.edu

#### EDUCATION:

- 2017                    **Ph.D. in Business Administration**, Old Dominion University, Norfolk, VA. Concentration: Strategic Management and International Business.
- 2013                    **Master of Public Administration**, University of North Carolina-Chapel Hill, Chapel Hill, NC. Thesis: The Fiscal Impact of Annexation on North Carolina Municipalities.
- 2009                    **Bachelor of Arts, magna cum laude** in English and German, University of Illinois at Urbana-Champaign, Urbana, IL. Thesis: The Role of Didacticism in Avant-Garde Theater.

#### REFEREED PUBLICATIONS:

- Mallon, M.R. Forthcoming. Getting Buy-In: Financial Stakeholders' Commitment to Strategic Transformation. *Management Research*.
- Mallon, M.R. and Fainshmidt, S. 2017. Assets of Foreignness: An Integrative Model and Agenda for Future Research. *Journal of International Management*, (23) 1, 43-55.
- Mallon, M.R., Lanivich, S.E., and Klinger, R.L. 2016. The Right Stuff: Resources for New Venture Performance in the Start-up and Growth Stages. *Academy of Management Best Paper Proceedings*.

#### INVITED PUBLICATIONS:

- Klinger, R.L. and Mallon, M. R. 2015. Personality and Values at Work. In: James D. Wright (editor-in-chief), *International Encyclopedia of the Social & Behavioral Sciences*, 2<sup>nd</sup> edition, Vol 17. Oxford: Elsevier. p. 821–826.