

Three Essays on Emerging-Market Business Groups

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ABSTRACT

Three Essays on Emerging-Market Business Groups

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Much of the literature on emerging market Business Group (henceforth BG) views the subject in a monochrome ‘paragons or parasites’ dichotomy. In these divergent perspectives, BGs have either a positive or negative effect on economic and institutional development. In the paragon view, BGs emerge as an organizing mechanism to address weak institutions by internalizing market transactions. However, with the development of market-supporting institutions, BGs become less efficient and theory predicts their dissolution and replacement with independent freestanding firms. In the parasite view, BGs emerge but develop strong economic and political power, which are used to block the development of market supporting institutions and support their entrenchment in a stagnant domestic economy, consistent with a middle-income trap.

The overarching goal of this thesis is to address this dichotomous paradigm and investigate why neither perspective adequately explains the phenomenon of long-lived and efficient BGs. In some economies, BGs emerge, persist, and exhibit increasing efficiency and international competitiveness accompanied by continuing institutional development. More specifically, this thesis aims to offer more nuanced understanding between BGs and their institutional context to understand their resilience during market transitions. The dissertation addresses its theme with three related essays. The first investigates the fundamental source of the emergence and persistence of BG in a shifting institutional environment. Empirical results show that several complementary bundles of management practice differentiate BG affiliates and

independent firms in the early phase of development but become less prominent at later stages. The second essay considers the export performance of BG affiliates through organizational capability lens to distinguish between market and nonmarket capabilities. This paper finds support for the hypothesis that BGs utilized superior nonmarket capabilities on enhancing their export performance and suppressing other's internationalization, but these advantages would be mitigated in a jurisdiction with better political and social support. The third essay complements process theories of emerging market BGs internationalization by considering the structural conditions for successful early-stage internationalization. We propose that international political economy origins have long-lasting path-dependent effects on BG strategy and structure and find strong evidence that BG affiliates in Latin America are less likely to export than are those in Asia.

The overall implication of the thesis is to present a vibrant picture of BGs in their institutional context. Empirically, this thesis is among the first few to perform empirical research with firm-level microdata BG, collected from the World Bank Enterprise Surveys. The large multi-country dataset allows for a comparative analysis of the issues, while most BG research focuses on single country settings. This thesis contributes a cross-country study using a BG standard definition, thereby adding to a comparative understanding of BG persistence. This thesis also adds to the literature by identifying explicitly non-financial consequences of group affiliation. To sum up, this thesis offers insights for future research on the broader spectrum regarding institutional spheres where BGs associated with and its either positive or negative inter-connections.

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My Ph.D. journey starts from asking a simple question in management research: why some firms manage better than the others? My curiosity leads me to a new path that explores the origin and outcome of many intriguing phenomena in the world of business. Throughout this journey, it's a mixture taste of fulfillment, excitements, celebrations, of course, some setbacks. But every bit of them is so grateful to me and none can't happen without the love ones I list here.

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This thesis is a milestone on my academic journey, but I deem more appropriate a collective achievement from those contribute with steadfast commitment. Therefore, I prefer to use “we” here to reflect the theoretical and technical guidance of my thesis committee and other mentors. This also reflects my discomfort with the pronoun “I” in all written productions as I would like to enlist those co-authors on the way to publication.

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Figure 1 Theoretical Framework

Figure 2 Projected Margins of Moderation Effects on Export Intensity

Figure 3 Projected Margins of Moderation Effects on Export Intensity

Thesis Overview

Historical Background

The earliest research on BG phenomena starts from the mid-1970s in the disciplines of business history where BGs are organizations inherited from the colonialism era in a vast area of Southeast Asia, India, Africa, and Latin America. Benefit from international trade and investment from European countries, these documented organization engaged in multi-business such as commodity production, timber and national resource trading, metal mining, shipping and logistic, and even financing and banking. Business historian has not defined this prototype of organization in concrete means with many interchangeable names being used as “agency house”, “investment houses”, “expatriate firms”, “business groups”, etc. One primary example is the Japanese Zaibatsu facilitate as the driving force for state modernization by imitating the Western corporations and forming trading division in the region of East and Southeast Asia before WWII.

Early research emphasized BGs capacities facilitating access to credit (Strachan, 1976) and contract enforcement among group members in postcolonial society (Leff, 1978). Studies of Japanese and Korean BGs, Keiretsu and Chaebol, also noted these attributes but also identified additional characteristics such as the creation of internal labour markets, and in the capacity for acquiring and disseminating advanced technology among affiliates (Amsden, 1992; Lincoln & Gerlach, 2004). Subsequent research discovered comparable characteristics among *Qiyejituan* in mainland China (Keister, 1998), *Hongs* in Hongkong (Wong, 1996), *Guanxiqiye* in Taiwan (Numazaki, 1996), *Business Houses* in India (Encarnation, 1989), *General Corporation* in Vietnam, *Oligarchic firms* in Russia and Ukraine, and *Grupos Economicos* in several Latin American countries (Strachan, 1976). These studies embody a progressive view of the BG as first movers in the development of organisational capabilities and international competitiveness.

During the last few decades, BGs are prevalent in many less developed countries and among rapidly growing markets such as Brazil, India, and China. For example, 65% of Indonesia's publicly listed firms are affiliated with a BG, but the affiliation rate is only 23% in Israel and 25% in the Philippines (Khanna & Yafeh, 2007). These countries are generally classified as emerging markets shifted from planned economies to market economics, mostly located in Asia, Latin America, Eastern Europe and Africa. (Hoskisson, Eden, Lau, & Wright, 2000; Khanna & Palepu, 1999, 2013; Marquis & Raynard, 2015; Meyer, Estrin, Bhaumik, & Peng, 2009; Peng, Wang, & Jiang, 2008) The economic liberation process undertaken in these emerging markets tend to raise the overall economic development and then enhance well being for the country as the ultimate outcome. But the pace of market growth varies remarkably as some outstanding countries surpass others in performing better off economic and social welfare, such as Argentina and Chile in Latin America, Baltic states and former Czechoslovakia states in Eastern Europe.

Even though emerging markets share similarities in progressing institutional development while some of them stuck in the midst of multiple market obstacles. For example, contemporary China experiences economic boom and has been well acknowledging in catch-up the pace in building "hard" and tangible institutions, such as infrastructure in transportation and public utility, but lacking behind its promoting softer and invisible institution support for legal and regulatory enforcement. Another noticeable example is India that well process its political advancement and encourage education standard towards those of Western countries but fall short of strong states promoting collective success in building efficient capital markets. Apparently, the institutional condition in one particular country is a mixture of high and low profiles that promote or suppress the market growth at the meantime.

Other than prevailing in emerging markets, BGs also thrive in several advanced economies in Western Europe (Belenzon, Berkovitz, & Rios, 2013; Chang, 2006). Recent research shows that group affiliation is also common in some highly developed markets with strong market supporting institutions such as Belgium, Germany, and Sweden (Belenzon, Berkovitz, & Rios, 2013). The continued strength of BGs in advanced economies with well-developed market supporting institutions is puzzling (Morck, 2010) because the leading theory of BG functioning, the missing institutions perspective (Khanna & Palepu, 2000), suggests BGs are formed to solve the problems of missing market supporting institutions and predicts their competitive advantage will wither when those market institutions develop. Hence, the expectation is that BGs will fade, restructure, and eventually disappear (Hoskisson, et al, 2005, Khanna & Palepu, 2000). However, BGs have displayed unpredicted resilience in the face of institutional development. In a review of the literature Granovetter (2005: 445) concludes that “there is in fact, considerable evidence that since the mid-20th century BGs have typically defied predictions of their imminent demise surviving the conscious attempts by politicians to break them up and the impact of financial crises”. Others reach similar conclusions, noting that while BGs appear in economies with weak institutions they rarely disappear, but rather gain ‘eternal life’ (Morck, 2010).

Theoretical Perspectives

It’s systematically documented that BG as “a set of firms which, though legally independent, are bound together by a constellation of formal and informal ties and are accustomed to taking coordinated action” (Khanna and Rivkin, 2001). Being a valuable format of governance structure in emerging markets, BG has advantages in pooling management talents, sharing umbrella brand name, sharing internal capital market, diffusing market information, coordinating political

lobbying, interlocking equity and board membership, etc. BG is characterized as an “intermediate level of binding” located on the middle ground of a continuum between market and hierarchy (Granovetter, 2010). Conventional wisdom presumes risk sharing as an assurance function for BGs because they are apt to enhance stability from diversification and provide mutual insurance and assistance in capital financing, in consequence, maximize the joint utility of corporate constituents (Khanna and Yafeh, 2005).

Mainstream BG research has diverged into two competing theoretical lenses as “paragon or parasite” debate. Building upon the missing institutions perspective¹, BGs were acknowledged positive attributes to fill missing institutions in emerging countries and boost industrial capacity for those affiliated (Guillen, 2000) and national development (Fisman & Khanna, 2004). BG as a feasible form in filling the market imperfections to varying degrees in providing the institutions necessary to support basic business operations (Khanna & Palepu, 1997). As transaction cost economics presumes, BG was perceived as a response to market failure and the association of transaction costs. It’s well-known that market efficiency and transparency remain low in emerging markets so as to induce substantial cost in transaction. This economic perspective posits BG internalize transactions with affiliates in lowering cost in market and approach economics of scale and scope to achieve better efficacy. BGs have advantages in responding to undeveloped market by pooling management talents, sharing umbrella brand name, sharing internal capital market, diffusing market information, coordinating political lobbying (Khanna & Yafeh, 2007). For example, one particular function often attributed to BGs is that they enable

¹ In their early work Khanna and his colleagues described poor quality institutions as ‘voids’ (e.g. Khanna & Palepu, 1997), but in later work used the term ‘missing institutions’ (e.g. Khanna & Yafeh, 2007). The term ‘institutional voids’ enjoys wide currency in the IB literature, but recent work suggests the term is pejorative implying that a jurisdiction lacks any institutional framework (Bothello, Nason, & Schnyder, 2018).

member firms to share risks by smoothing income flows (profit, dividends, loans and receivables) and reallocating money from successful affiliates to depressed ones. This function is pronounced in Japanese keiretsu, which has lower means and lower standard deviations of profitability relative to unaffiliated firms (Khanna & Yafeh, 2005).

Further advocated by institutionalist, positive complementary relationship between institutions and BG affiliates as beneficial complementarities when capital markets develop, such as those publicly-listed group affiliates come under greater scrutiny from external investors (Chittoor, Kale, & Puranam, 2015). Affiliates who shift their resource allocation criteria toward more profitable ventures will be rewarded with additional capital from external markets. The constructive functions translate BGs into key players in state-led industrialization for the “East Asian Economic Miracles” in Japan, Korea, Taiwan, and Singapore. In the 1980s and early 1990s, BGs contribute actively in coordinating and channelling capital towards diversified opportunities from economic liberation and market transitions. In particular, the state adoption of economic liberalization entailed the retreat of the state from detailed economic intervention to create the conditions for BGs to flourish. The programs of free trade, deregulation, and privatization of state-owned enterprises induce BG owners to establish a capitalist-entrepreneurship class in framing network organization structure and resource sharing among those affiliates. Towards this end, BGs are encouraged and sometimes appointed to lead industrial growth as the promoters to reduce the cost in reaching arm length deals and speeding up the process in emergent liberalizing markets, eg. Samsung and Hyundai in Korea. The missing institutions perspective advocates that BGs as the vanguards narrowing the productivity gap distant from the developed countries. Back up by ample resources from national accounts,

BGs are apt to represent the most efficient and innovative force in promoting industrial growth, mainly in the technology and manufacturing sector.

Alternatively, BGs are criticized as the negative exploiting mechanism in a pyramid structure and tunnelling with related parties then brings harm to the national economy as a whole (Almeida & Wolfenzon, 2006; Fogel, 2006). A political economy perspective suggests powerful BGs may become uncompetitive but may become entrenched in their domestic markets. It's not rare that BGs exercise political influence to impede the development of market supporting institutions that threaten their interests (Fogel, 2006; Schneider, 2010). While economic liberalization signals a retreat from state intervention in the economy the appearance of fully functional market-supporting institutions is often a slow-paced work in progress. For instance, government officials and business executives lack the cognitive mindsets to shift rapidly from state-planned to market-oriented transactions (Peng, 2003). The lagged behind development in legislation and regulatory framework in emerging markets give birth to rent-seeking and exploit position for those entrenched organizations by influencing economic policy and industrial growth. The less positive view perceives BG as an opaque and pyramid structure readily perform self-dealing activities in tunnelling profits from minority investors to ultimate owners (Fogel, 2006). The surge agency problems are well-acknowledged as most BGs established an intricate mechanism in governance structure apt to redirect the cash flow within the group. In a sustainable way, well-established BGs are typically well positioned to take advantage of the opportunities afforded by economic liberalization since they generally possess ample financial and managerial resources, at least when they are compared to stand-alone domestic firms (Manikandan & Ramachandran, 2015). Thus, BGs withhold substantial power in dominant markets leveraging their position by suppressing the competition from alternative forms of

enterprises and support the conditions for persistence of BGs without considering the importance of efficiency. For example, Japanese keiretsu, which has lower means and lower standard deviations of profitability relative to unaffiliated firms since BGs comes with substantial cost from internal coordination among group members, such as less incentive for better run affiliates to bear the financial burden of poorly performed affiliates.

Empirical Findings

Literature in the post-1997 period diverges from the above two perspectives on the relative performance debate comparing BG affiliates to non-affiliated or stand-alone firms. Large volume of empirical studies during this period depicts a heterogeneous landscape on the progressive growth of BGs from least developed countries to emerging OECD countries. Given the data constraints, most empirical research on this topic are single country studied and compare economic and financial performance at the firm level. Nevertheless, major findings show BG effects on affiliates are much more versatile than expected when includes evidence from a wide range of context. Carney and colleagues (2011) conducted a meta-analysis to synthesize evidence on the effects of group affiliation on performance and unpacked intuitional void thesis by exploring the effects of institutional context moderation and organizational strategy mediation. In contrast with the missing institutions perspective, BG affiliates only hold group advantages in countries with intermediate to advanced levels of institutional development. For the countries at low levels of development, the performance effects on BG affiliates are negative and more aligned to the expropriated perspective. Besides, group affiliates are found to be influenced by operation strategy in finance arrangement (debt or equity), diversification and internationalization. Empirical test shows a complex picture: on the one hand, group affiliates tend to be more leveraged, diversified and locally orientated than stand-alone peers; on the other

hand, greater scale was found to be positive with group performance but greater scope presents a negative correlation. Despite sizable body of literature address performance debate from two diverging theoretical lenses, there is no unanimous support for either the positive or negative views as most evidence are highly context-dependent.

A new stream of research extends the “paragon or parasite” paradigm debate beyond financial outcomes address generic competitive advantages on BGs affiliates over unaffiliated firms. Consistent with the missing institutions perspective, BGs are documented to establish innovation and informational advantage by acquiring technology from developed countries (Guillen, 2000; Mahmood, Zhu, &Zajac, 2011). Given the advantages of internal capital and labour market, BGs are the best candidate to absorb the most advanced know-how from spillover effects in cooperation with MNEs, eg. Joint venture or outsourcing agreement (Estrin, Meyer & Pelletier,2018). The improving efficient in operation and management boost up BG’s ambition to engage international competition cross border by significant cost advantage thanks to much lower labour cost. Besides capturing knowledge-based techniques, BGs in emerging markets develop international competitive advantage also by leveraging their social and institutional proximately. Eg. Chinese state-own enterprises heavily invested in infrastructure and manufacturing in Africa and southern Asia by reaching agreements with key policymakers (Keister, 2001; Cox, 2018). However, evidence also suggests negative perspective that BGs may suppress the growth of international capability due to sufficient domestic power over other forms of enterprises. The notorious rent-seeking motives prevail in developing countries where BGs are criticized for coinsurance related transactions with government officials (Jia 2012, Cheung 2006). The political and business bonding in opaque arena gives considerable returns to both parties as BGs guarantee exclusive access to profitable avenue from unspoken deals behind the

scene. Consequently, retrieving rents from assured BGs less investment in efficiency enhancement and lower incentive to explore opportunities across borders. Country-specific studies even suggest the negative effects would spread nationwide and inhibit growth for economic and social wellbeing (Fogel,2006, Almeida& Wolfenzon, 2006).

Another stream of research sheds lights on governance structure that reflect heterogeneity topics in ownership and control, equity ties and director interlocking. Among the earliest of them, Khanna and Yafeh (2005b) proposed BGs are posited to be more diversified, to have higher intragroup trade volume, and to participate financial service in order to fill the void from weak legal and judicial institutions. BGs with family-controlled are more apt to couple ownership and control dimension while establishing pyramidal and tunnelling mechanism is particularly common in countries with poor investor protection and inadequate rule of law. The major works published in finance and economic journals withhold negative perspective that pyramid structure deteriorating power asymmetry between BG owners and minority investors.

To date, BG research has primary focus on the performance debate of group affiliates and stand-alone firms with over 100 studies performed in-depth examination for the comparison between the two. With so many efforts pouring into the affiliation-performance debate, BG persistence as a component of missing institutions thesis has rarely been documented in the literature. For example, the fundamental argument in missing institutions thesis suggested BG as a temporary presence and will fade away once surrounding institution fulfills its designated functions. But this argument was not fully examined and received very limited empirical support so far.

Research Overview

In this dissertation, we convey the relationship between BG resilience and institutional conditions may not be simple as dichotomy prediction and could lead to a more complex unexplored settlement. Much of the existing conversation on BG subject is too coarse on a monochrome ‘paragons or parasites’ dichotomy (Khanna & Yafeh, 2007). Neither positive nor negative perspective can fully explain the fact BGs’ internal capabilities and sources of competitive advantage., such as Chinese, Korean and Indian BGs have achieved international stature through progressive internationalization (Yiu, 2011). Indeed, BGs may represent an adaptive organizational form that co-evolve with national institutions in a manner that reinforces their accumulated competitive advantages in economy welfare (Carney & Gedajlovic, 2002; Kock & Guillén, 2001).

The overarching goal of this thesis is to advance current dichotomy paradigm and investigate why BGs emerge and prevail in emerging markets where economic transition accompanied by institutional development. More specifically, this thesis aims to answer following research questions: (1) Beyond “paragon or parasite”, are there any more nuanced understanding between BG and the embedded institutions in emerging markets? (2) What are the key drivers for BG resilience during the era of market transitions? (3) What contributes to BG’s superior competitive advantages, especially those aligned with international expansion? (4) If BGs are to sustain with advanced capabilities, why BGs in certain regions differ from their peers in other regions?

To address these questions, this dissertation presents a collection of three integrated essays, each offers theoretical or empirical insight. The overall implication from this thesis is to present a more vibrant picture between BG and the embedded institutions occurring in the

context of developing and emerging markets. Indeed this thesis suggests economic liberalization may result in much greater variation in economic and social outcomes (Judge et al., 2014). The significance of the paper is to contribute to ongoing discussion concerning the phenomena of BG persistence and resilience (Carney, Estrin, Shapiro, & Van Essen, 2017; Holmes, Hoskisson, Kim, Wan, & Holcomb, 2016). Theoretically, this thesis partially departs the mainstream BG research that builds upon the dichotomy theoretical debate, essays described below employ alternative theoretical lenses that are much less considered in the literature.

Empirically, this thesis is also among the first few to perform empirical research on BG with large multi-country dataset while the vast majority of work focuses on single country settings. This thesis contributes a cross-country study using the standard definition and survey, thereby adding to comparative understanding of BG persistence. This thesis also adds to the literature by identifying explicitly non-financial consequences of group affiliation. For instance, BG affiliates may enjoy continued preferential access to internal finance, even when quality of their projects are poor, while standalone firms with high-quality projects will encounter frustration in finding sources of external finance. In this case, this thesis offers insights for future research on the broader spectrum regarding institutional spheres where BGs associated with and its either positive or negative inter-connections.

The first essay investigates the fundamental source of the emergence and persistence of BG in the progressing institutional environment. Since a widely accepted account of Business Group (BG) functioning suggests that this common corporate form will dismantle and restructure with the progressive maturity of market-supporting institutions. However, even in mature institutional settings, BGs appear to persist and thrive. We hypothesize that BG persistence arises from an evolving competitive advantage because their group affiliates develop complementary

bundles of management practices at different stages of institutional development. We test our hypothesis with data assembled in the World Bank Enterprise Surveys. Empirical results show that several complementary bundles of management practice differentiate BG affiliates and independent firms in the early phase of development but become less prominent at later stages. However, some of the differences in management practice bundles disappear, but others continue to differentiate independent firms and group affiliates in mature institutional jurisdictions.

The second essay analyse the export performance of BG affiliates through the lens of the missing institutions framework but augmented to distinguish between market and nonmarket capabilities. This paper proposes that BGs utilized superior nonmarket capabilities on enhancing their export performance while depressing other competitors' internationalization progress, but these effects would be mitigated in a jurisdiction with better political and social support. We test these ideas using a large sample of firms from understudied countries and find that BG affiliation has a positive impact on exports at the firm level but does collective harm all firms at the country level. We also test how these relationships are sensitive to institutional context and find that both effects on exports are lower in countries with stronger political institutions.

The third essay complements process theories of emerging market BGs internationalization by considering the structural conditions for successful early-stage internationalization. We take an International Political Economics (IPE) approach to identify geographic factors associated with the emergence of a development-friendly or unfriendly context for internationally competitive firms and apply this to the export performance of BG affiliates, comparing and contrasting Asia and Latin America. We propose that international political economy origins have long-lasting path-dependent effects on BG strategy and structure,

beginning with the early stages of internationalization. We find strong evidence supporting the idea that BG affiliates in Latin America are less likely to export than are those in Asia.

Essay 1: Business Group Persistence and Institutional Maturity: The Role of Management Practices

Introduction

Business Groups (henceforth, BGs) are prevalent in many less developed countries and among rapidly growing emerging markets such as Brazil, India, and China. However, BGs also thrive in midrange economies (Hoskisson, Wright, Filatotchev, & Peng, 2013) and advanced economies in Western Europe and East Asia (Belenzon, Berkovitz & Rios, 2013; Colpan & Hikino, 2018; Chang, 2006). The continued strength of BGs in advanced economies with maturing market supporting institutions is puzzling (Morck, 2010) because scholars reason that BGs are formed to compensate for missing market-supporting institutions, then their advantage should erode once market institutions develop. Hence, scholars predict that BGs will subsequently dismantle (Almeida & Wolfenzon, 2006), reducing their scope by refocusing (Hoskisson et al., 2005), or restructuring by divesting unrelated businesses (Chung & Luo, 2008). However, some BGs display unexpected resilience in the face of institutional maturity (Zhang, Sjögren & Kishida, 2016), and many have grown stronger (Lamin, 2013). Morck (2010) noting that while BGs appear in economies with weak institutions, they rarely disappear, but rather gain ‘eternal life.’ So far, much of the BG literature has focused primarily upon their affiliates’ financial performance, but scholars pay less attention to their management practices, internal capabilities, and sources of competitive advantage that might explain their persistence.

The quality of management practices varies across firms and countries, and firms with good management practices tend to have better performance on several dimensions, including growth, productivity, and survival rates (Bloom & Van Renssen, 2007, 2010). In this paper, we consider management practice differences between independent and group affiliated firms in countries at different stages of institutional maturity. We conduct exploratory and confirmatory

factor analyses of firm practises and identify three management practice bundles (Bloom et al., 2013). Based upon congruence with Khanna & Palepu's (2010) taxonomy of market intermediaries, we label these bundles transactional facilitator, aggregator & distributor, and credibility enhancers (Khanna & Palepu, 2010) and examine the extent to which these bundles are prominent in BG affiliates and independent firms.

Theoretically, we build upon the transactions cost economics distinction between management practises, capabilities, and assets, that can be acquired factor markets and those that can only be created through hierarchical and hybrid sources of governance (Williamson, 1985). Many of the management practices we investigate in this paper can be acquired in strategic factor markets (Makadok, 2001) supplied by specialist market intermediaries, including consultants, auditors, Information and Communications Technology vendors, and in markets for high-quality human capital. These intermediaries are often plentiful in advanced economies. Because factor market imperfections will be more significant in emerging markets (Khanna & Palepu, 2010), many of these intermediaries will be absent or expensive. If firms wish to adopt and utilize these practices, then they must develop them internally. For example, if external credit is in scarce on external capital markets, BGs may serve as an aggregator and redistributors to provide credit for their affiliates. However, as external capital markets develop, independent firms can acquire credit, and group affiliates lose their credit advantage.

However, some management practices associated with competitive advantage cannot be bought and sold in the marketplace, which Teece (2014) describes as non-tradable. Such practices must be nurtured and leveraged within the BG if they are to have any value. For example, reputation is an immobile 'non-tradeable asset' (Dierickx & Cool, 1989), and cannot be bought but instead cultivated within a firm or other hybrid organizational arrangement. Indeed,

non-tradable assets may be quite generic, what Teece (1986) describes as general-purpose assets, yet group-specific. Practices that build trust or reputation exemplify general-purpose, group-specific assets and may retain their value even as markets for other assets appear. We theorize that advantage derived from credibility enhancing will accumulate by strengthening the firm's reputation, thereby providing a more durable competitive advantage.

To test our hypotheses, we assemble data on independent and group affiliated firms from 60 countries arrayed along a continuum of institutional maturity ranging from Angola to Sweden. We draw our data from the World Bank Enterprise Surveys (WBES), which samples a wide range of understudied economies, including those which have launched pro-market reforms and other institutional building projects to address the problem of institutional voids. WBES contain owner/manager responses to a variety of questions about their firm's management practices. The survey also distinguishes between firms that are affiliated with a larger enterprise yet remain autonomous by retaining decision-making authority over financial and human resource decisions. Accordingly, the World Bank data represents a standard survey that allows for cross-country comparison between economies at different stages of institutional maturity.

However, we begin with the caveat that our hypotheses are temporal and ideally require longitudinal data, but WBES data is cross-sectional. Nevertheless, longitudinal studies typically focus on single country settings and the generalizability across jurisdictions is questionable due to measurement differences in institutional quality, BG definitions, and sampling strategies (Carney & Shapiro, 2009; Lee et al., 2008; Ramaswamy et al., 2017; Zattoni et al., 2009). The advantage of our study is that our data are based upon common measures of institutional quality, using standard BG definitions and sampling strategies. The data provide tentative evidence about the extent to which our hypotheses are generalizable. We expect to observe an overall

improvement in the quality of firms' management practices with rising levels of institutional maturity. However, as Bloom and his colleagues (2013) observe, there are significant country and firm-level differences in the quality of management practice. It is management practice differences between group affiliates and independent firms that we seek to discern.

The significance of the paper is to contribute to the ongoing discussion concerning the phenomena of BG persistence in the context of institutional construction and maturity (Carney et al., 2018; Holmes, et al., 2018). First, we contribute empirical support to recent conceptual advances in the missing institution's perspective (Khanna & Palepu, 2010; Khanna 2018). These advances suggest that with the appearance of new technological opportunities, there will be a continual emergence of new institutional voids, and BGs that evolve and provide solutions to these voids may retain a competitive advantage. Secondly, we develop theoretically a concept of BG advantage based on their capacity to create firm-specific (Teece, 1986) and non-tradable assets (Dierickx & Cool, 1989), and we seek to contribute to the explanations of BG persistence in economies with mature market-supporting institutions. The majority of the empirical literature rests upon BG studies in single country settings; our paper contributes a multi-country study using a standard definition of both group affiliation, and management practises, thereby providing a more generalized understanding of BG persistence.

Theory & Hypothesis

Research has established that BGs are heterogeneous with respect to factors such as corporate structure (Yiu, Lau, & Bruton, 2007), ownership (George & Kabir, 2012), the extent of their vertical and horizontal scope (Khanna & Yefeh, 2007), the underlying basis of group solidarity (Granovetter, 2010) and group identity (Ramachandran, Manikandan & Pant 2013). Despite their differences, what BGs share in common is the capacity to engage in mutually

beneficial exchange among group affiliates (Lee, Choo & Yoon, 2015). In contrast, independent firms will confront exchange obstacles that restrict their efficiency and growth. BG advantages are most evident in the absence of market-supporting institutions where BGs can serve as ‘transactional arenas’ that allow affiliates to come together to coordinate activities and facilitate exchange (Gao, Zazul, Jones & Khanna, 2017). Market supporting institutions include formal protection for property rights and contract, including efficient government regulation and courts and other adjudicators which seek to resolve legal and contractual disputes. In these respects, BGs compensate for missing institutions by serving as a microcosm for contract enforcement: a “haven where property rights are protected” (Khanna & Palepu, 1997:7).

The missing institutions' perspective suggests that BGs compensate for the absence of third-party intermediaries by forming group mechanisms to substitute for missing intermediaries (Khanna & Palepu, 1997). These mechanisms include the creation of quasi-internal markets for capital, personnel, and know-how (Chang & Hong, 2000) but also by cultivating a reputation for trust, reliability and integrity. It is in this sense that BGs can be described as transactional arenas for contract enforcement (Gao et al., 2017). This capacity for contract enforcement and filling the voids in missing market intermediaries provides group affiliates with a competitive advantage over independent firms.

However, group affiliation has both costs and benefits, and as institutions mature, group affiliation costs tend to remain constant, but the benefits diminish (Hoskisson et al., 2005; Claessens, Fan, & Lang, 2006). With the relative increase in the costs of group membership, the advantage of affiliation decay and groups are expected to weaken and dismantle because the progressive maturity of market-supporting institutions allows independent firms to acquire resources on open markets. One corollary of the missing institutions' perspective is the

expectation that, as substitutes for missing institutions, BGs are expected to be a transitional feature of emerging markets and their institutional construction and maturity process. The policy implications are clear: as Khanna and Palepu put it, “governments in developing countries must focus on building up those market institutions in the long term. The dismantling of business groups will, we believe, follow naturally once these institutions are in place” (1999: 126).

However, BGs do not always dismantle in the face of institutional development and, in many cases, they persist and thrive. Recent research suggests that the group structure possesses strategic features that enable sustained competitive advantage over independent firms. Research on Indian BGs finds an ability to develop informational advantages and international competitive advantage through both internal (Lamin, 2013) and external networks (Elango & Pattnaik, 2007; Mahmood, Zhu & Zajac, 2011). Similarly, the group structure can enable better sensing and seizing of growth opportunities within their diversified portfolios (Manikandan & Ramachandran, 2015) as the group structure enables an appropriate balance between coordination and firm-level autonomy (Ramachandran, Manikandan & Pant, 2015). Another account suggests that long-established groups accumulate financial resources and marketing capabilities that help them thrive in the wake of market reform programs (Siegel & Choudhury, 2012). Whether these studies of sustainable competitive advantage based on the experience of Indian business groups generalize to BGs in other diverse jurisdictions is not known.

Theoretically and empirically, we seek to identify strategic business group features that generalize beyond a single jurisdiction. We focus upon firm-level management practices and the extent to which they cohere into particular bundles of management practices (Bloom et al., 2013) that could provide sustainable competitive advantage across multiple jurisdictions at different levels of institutional maturity. Drawing from Khanna & Palepu’s (2010) sixfold taxonomy of

market intermediaries, we identify three management practise bundles that are congruent with their conceptions of transaction facilitators, aggregators and distributors, and credibility enhancers. *Transaction facilitators* are those providers that facilitate platforms for the consummation of transactions, such as executive search firms, credit rating agencies, and consumer reports *Aggregators and distributors* are the matchmakers that connect suppliers and customers with value-added services, such as banks, venture capital and trading companies. *Credibility enhancers* are intermediaries that provide third-party authentication of firm claims, such as auditors and quality certification organizations. While BGs may facilitate other forms of intermediation identified by Khanna & Palepu, (2010), we encounter data limitations with our WB data. Accordingly, our hypotheses and empirical testing are limited to the three forms of intermediation described above. We now turn our attention to hypothesis development concerning only three bundles of management practices functioning as transactional facilitators, aggregators and distributors, and credibility enhancers, respectively.

Transactional Facilitator and Aggregators & Distributors Practices

Transaction facilitators are third-party specialist firms and organizations that provide a transaction platform and facilitate market trading between independent entities. Examples include labour market intermediaries such as executive search firms to source management talent, or high-quality educational and craft organizations providing skilled, trained employees. In consumer markets, online payment firms facilitate e-commerce by enabling consumers to complete transactions without waiting for checks or cash, and capital markets, stock exchanges where firms can find arms-length investors (Khanna & Palepu, 2010). The absence of such third-party intermediaries means that firms must either do without these factors or internalize these transactions if they are to be made available. In particular, emerging market firms face

difficulties in finding qualified employees because educational and vocational training organizations are poorly developed (Khanna & Paelpu, 2010). There is a copious body of research establishing attesting to the fact that business groups establish quasi-internal labour markets to meet affiliates' needs for skilled labour, technical and high-quality management (Colpan, Hikino & Lincoln, 2010). For example, by providing intra-group training programs (Chang & Hong, 2000) and create project management teams to address critical problems or establish new lines of business (Amsden & Hikino, 1994). Compared with independent firms, BGs are more able to bear the investment costs associated with skills development due to their ability to spread the costs of such investment over multiple group businesses.

Some emerging market firms seek to accelerate the process of technological catch-up with the capabilities of firms from more mature economies. In this regard, BG research identifies their capacity for acquiring and disseminating management practices and supporting technologies among its affiliates that enhance firm productivity (Hobday, 1995; Mathews, 2006). Often these practices and technologies are not necessarily very advanced, but adoptees claim they had failed to previously adopt these practices because they were simply unaware of them (Bloom et al., 2013).

Secondly, during the transition from early phases of institutional, the typical firm will be resources constrained. Among these, one overriding constraint is capital availability. Firms in a range of economies confront difficulties in accessing credit (Beck & Demirguc-Kunt, 2006), but credit shortages are chronic in emerging markets because the enforcement of creditor contracts can be prohibitively costly (Dewaelheyns & Van Hulle, 2010). In such markets, creditors receive very little protection, and high transaction costs will limit credit availability.

In emerging markets, BGs may serve as internal capital markets; BGs obtain much of their capital in the form of bank credit (Lincoln & Gerlach 2004; Chang, 2006, 2007). Groups can diminish the credit constraints on their affiliates because they may come to their aid in times of need, a practice known as coinsurance or propping (Jia, Shi & Wang, 2013), which lowers affiliates' default risk. Where creditor protection is weak, banks are likely to be conservative, but they may be more willing to provide credit to an affiliate of a reputable group that they perceive as less likely to default (Khanna & Yafeh, 2007). Moreover, the group's membership has an incentive to ensure that other affiliates meet their credit obligations as the status of a group's credit-worthiness can be harmed if individual firms shirk on their credit commitments. Accordingly, we expect that group affiliates will enjoy better access to capital aggregation and distribution compared with independent firms. Thus, concerning management practices functioning as a transactional facilitator and aggregators & distributors:

Hypotheses 1: Compared with independent firms, business group affiliates will exhibit better management practices reflecting their capacity to function as transaction facilitators and aggregators & distributors.

Transaction Facilitator, Aggregators & Distributors, and Institutional Maturity

Economic liberalization in emerging markets entails the retreat of the state from detailed regulation and economic intervention in firm affairs with a shift toward liberal reform programs comprising free trade and investment policies, deregulation, and privatization of state-owned enterprises. With the improvement of market-supporting institutions, property rights will be better protected, resulting in fewer factor market imperfections. In the liberalized environment, new types of third-party intermediary should appear in the form of consultants, executive search firms, new skill development processes such as certification of ITC skills, along with better quality education and craft skills training programs. With the development of market-supporting institutions, independent firms will increasingly be able to gain resource access to specialized

knowledge and management practice. In contrast, group affiliates may remain loyal with ‘sticky ties’ to established business partners and continue to transact for such assets within the group, (Keister, 2001; Lincoln & Gerlach, 2004) even though these partners may be less efficient or ‘second-best’ to specialist providers on external factor markets (Almeida. & Wolfenzon, 2006).

Further, improvements in market supporting institutions will stimulate the emergence of affordable financing options for independent firms. Market-oriented reforms bring innovations in new forms of credit and insurance. For instance, reforms in sub-Saharan Africa that provide a legal title for land tenure are expected to help firms in marginalized gain access to formal credit and banking reforms have liberalized lending to small and medium-sized firms (Fafchamps, 2003). Similarly, across many emerging markets, innovations in mobile credit provide consumers with platforms to access a broader range of business suppliers (Cobert, Helms & Parker, 2012). The liberalization of capital markets will permit firms to borrow from foreign sources and enable the appearance of finance specialists, such as venture capital and private equity. The burgeoning third-party service providers in the financial industry, including credit rating agencies and risk assessment specialists, should ease access to credit for independent firms. Thus, the appearance of affordable credit sources will be most beneficial to independent firms.

Consequently, BG advantages created by better transaction facilitation and resource allocation should decay. As the quality of factor markets improves, more efficient transaction facilitation intermediaries will become available, as well as specialized resource aggregators/distributors. Hence, BG affiliates practises may become less competitive compared with specialist intermediaries in factor markets. To this end, we expect group affiliates practice will tend to be unchanged while independent firms accelerate their “catch up” and even surpass

BGs due to the growing availability of market intermediaries. Hence, we hypothesize a negative moderation relationship between BG affiliation and transactional facilitation and aggregators & distributors.

Hypothesis 2: Compared with independent firms, business group affiliates' superior advantage with transactional facilitation and aggregator & distribution practices will be diminished in jurisdictions with mature market-supporting institutions.

Credibility Enhancing Practices

In jurisdictions with mature institutions, there is an abundance of third-party organizations that lend credibility to firms through the certification of their stated claims. Examples include auditors and quality certification organizations (Khanna & Paelpu, 2010). These intermediaries provide credibility signals that underpin a firm's reputation (Gao et al., 2017). While credibility is a conferred social evaluation made by independent third parties, however, firms can undertake proactive credibility enhancing strategies designed to signal their desirable characteristics (Deephouse & Carter, 2005; Petkova, 2016). Firms can associate themselves with prestigious organizations to borrow their social capital (Burt, 2000), for example by associating themselves with prestigious organizations such as high-status customers or by receiving funding from a prestigious venture capitalist (Pollock, Chen, Jackson & Hambrick, 2010) or, more simply, employing external auditors to certifying their financial statements. In the absence of domestic credibility enhancers, firms may seek to establish credibility by seeking out international organization accreditation and by exhibiting compliance with international third-party standards. For example, to project an image of better quality products, firms' may seek to be accredited by international quality certification organizations. Likewise, to signal compliance with international intellectual property standards, firms may seek to gain licensed technology from foreign companies. Similarly, firms can also engage in reputation building

activities to attract favourable evaluations with stakeholder groups, such as contributing expertise to regulatory bodies and industry partners (Khanna, 2018).

We suggest BGs enjoy a comparative advantage in developing a credible reputation. This is because BGs have a strong incentive to uphold a reputation for ‘good behaviour’ by disavowing opportunism: this is because if an affiliate misbehaves, it may harm the reputation of all other affiliates (Gopalan, Nanda, & Seru, 2007). Moreover, BGs enjoy an advantage over independent firms in these regards because they can help their affiliates attain accreditation. The group’s social infrastructure can also offer mutual assistance with international activities, for example by identifying appropriate sales agents and other leads in foreign markets (Lamin, 2013), projecting a favourable group identity that is attractive to high-quality talent (Manikandan & Ramachandran, 2015), and in the capacity for acquiring and disseminating new technology among affiliates (Amsden, 1992; Lincoln & Gerlach, 2004). Accordingly, we hypothesize that:

Hypothesis 3: Compared with independent firms, business group affiliates will exhibit better management practices regarding credibility enhancement.

Credibility enhancement and institutional maturity

A core principle of transactions costs economics is that some firm-specific assets cannot be acquired on factor markets and are best governed within a managerial hierarchy or hybrid arrangement (Williamson, 1985). Indeed Teece, (1986) argues that assets can be the source of competitive advantage only if protected by a strong appropriability regime (enforceable property rights) or they are non-tradable or “sticky” to the firm that created them. For example, Barney (1986) suggest a healthy organizational culture can be a source of lasting competitive advantage, but a firm cannot purchase a culture on a factor market. Similarly, Arrow says that a firm's

reputation for trustworthiness is a non-tradable asset and suggests “trust is not a commodity which can be bought very easily” (Arrow, 1974: 23).

Consistent with Dierickx & Cool’s (1989) conception of asset stock accumulation, credibility-enhancing reputation does require constant nurturing, and to the extent that firms do so credibility enhancing effects will be prone to long-term accumulation (Gao et al., 2017). From transactional cost reasoning, credibility enhancing practices can be rather generic or ‘general-purpose asset’ (Teece, 1986), neither product- nor industry-specific, but applicable across a wide range of business activities. As BGs seek to catch up to the international efficiency frontier, moving from low to-high value-added industries, they are likely to confront new institutional voids, and general-purpose assets such as credibility-enhancement and reputation will likely serve as a continuing advantage. This is not to say that independent firms cannot also develop credibility enhancing practices, especially at later stages of institutional maturity. However, the cumulative effects of reputation suggest timing is particularly important: Once a firm has a favourable stock of reputation, it becomes easier to develop even more reputation (Ravasi et al., 2018). Thus, we reason that BGs accumulation of credibility enhancing practises in the earliest stages of institutional development can provide a lasting advantage over independent firms, which persists in the form of an accumulating reputation stock.

Hypothesis 4: Compared with independent firms, business group affiliates' advantage from credibility enhancement will be sustained in jurisdictions with mature market-supporting institutions.

--Insert Figure 1 here---

Data & Methods

We draw our firm-level data from the World Bank Enterprise Survey (WBES). With a primary focus on less developed and emerging economies, the World Bank collects enterprise data to

evaluate managers' perceptions of the business environment to improve understanding of firm behaviour and performance. The World Bank surveys collect quantitative and qualitative data designed to identify firm characteristics and practices that strengthen firms' capacity to innovate and increase productivity" (Enterprise Survey Indicator Descriptions, 2012:2). Since 2006, the World Bank collected data from over 120,000 firms in more than 130 countries across Asia, Latin America, Eastern and Central Europe, and Africa. The survey is a global stratified random sample with strata reflecting differences in firm size, business sector, and geographic region of the country. The sampling method intends to assure that survey samples are representative of firms in the jurisdiction. World Bank research staff administer the survey in person. WBES data are used widely in economics and development economic studies (Harrison, Lin, & Xu, 2014), international business (Cuervo-Cazurra, 2016; Nuruzzaman, Gaur, & Sambharya, 2019), and in studies of BG affiliation (Castellacci, 2015). The data provide information on firm ownership, group affiliation and several indicators of management practices relating to our dependent variables, as well as data for our control variables.

We use the most recent wave of surveys on 60 countries conducted between 2006 and 2016. We do so because we are unable to identify the double-counting of firms and avoid - creating a mixed of cross-sectional and panel datasets. Our sample contains country samples from the most recent survey with over 50,000 firms representing all sectors of economic activity, particularly in the manufacturing and service sectors. The data is cross-sectional rather than longitudinal. However, BG scholars seldom cover many of our sampled countries. Thus the data provide standard data from countries at various levels of institutional maturity. Table 1 summarizes the sample.

-Table 1 About Here-

Dependent Variables

Building on Bloom and Van Reenan's (2007) ideas and measures, we selected 15 survey items to capture different types of management practices from the WBES sections about Finance, Trade, Innovation and Technology, Workforce Characteristics and Government Relations. To retain the most relevant items for further analysis, we use factor analysis to extract maximum common variance from the list of survey items and place the items with common variance into a factor. We first perform an exploratory factor analysis (EFA) on 15 survey items with at least 0.3-factor loadings in generating three factors solutions. Then we perform confirmatory factor analysis (CFA) with structural equation modelling (SEM) to re-examine the result of our three-factor solution. SEM output provides standardized factor loading values for each observed variable of our three constructs, as well as standard error and significance. As can be seen from Table 2, standardized factor loading for each construct reaches a higher range of 0.5 to 0.8 with significant at $p < 0.01$, which indicates each of our three factors met satisfactory loading criteria. The three factors solution (Table 2) accounted for 90 % of the variance and explained the data well. The KMO measure of sampling adequacy generated a value of 0.7914, suggesting that a factor analysis on these items is appropriate. All factor loadings were significant ($p < 0.001$). The scores of the factors were Cronbach's $\alpha = 0.7575$. The eigenvalue of the first factor was 2.004, while that of the second factor was 1.994, and the third factor was 1.985, above the Kaiser criterion of 1.

We interpret the three factors as management-practise bundles that function as market intermediaries, labelled *Transaction Facilitator*, *Aggregators & Distributors*, and *Credibility Enhancer*, respectively. The first factor, *Transaction Facilitator*, refers to routine operations undertaken in daily transactions with customers and suppliers. This factor includes four items

that ask respondents whether the firm: 1) provides formal training to full-time employees; 2) has a checking or savings account; 3) has a website for business-related activities, and 4) uses E-mail to communicate with clients or suppliers². All items are coded one if the firm has the practice and 0 otherwise. We incorporate these items and generate a count variable with the range from 0 to 4, with a mean at 2.56 and standard-deviation at 1.18.

The second-factor, *Aggregators & Distributors* mainly refers to evidence of better credit access, in particular, practices associated with gaining capital from financial institutions. We incorporate four items from the second factor to construct the scale based on whether the firm: 1) has an overdraft facility; 2) has a line of credit or a loan from a financial institution; 3) has applied for any loans or lines of credit; 4) has purchased fixed assets, such as machinery, vehicles, equipment, land or building. All items are coded one if the firm has the practice and 0 otherwise. Again, we incorporate these items and generate a count variable with the range from 0 to 4, with a mean at 1.4 and a standard deviation at 1.3.

The third factor, *Credibility Enhancer*, refers to the number of management practices associated with increased product reputation and reliability from external accreditation institutions. This factor contains four items that ask respondents about whether the firm: 1) has internationally-recognized quality certification; 2) has an annual financial statement reviewed by an external auditor; 3) has used technology licensed from foreign companies; 4) has product sales direct export to other countries. Again, we incorporate these items and generate a count variable with the range from 0 to 4, with a mean at 1.19 and standard-deviation at 1.09.

² While these practices may be taken for granted in firms located in countries with mature market supporting institutions, there is significant variance in the extent to which WBES firms possess these characteristics.

-Table 2 About Here-

Independent Variable

Business Group Affiliated Firms (GAF) is the key variable signifying whether the enterprise is group affiliated. Defining BG membership can be challenging since the definition remains somewhat controversial (Khanna & Rivkin, 2006). The most common operationalization of group affiliation is that the firm has a public listing on a national stock exchange and is partially owned at a specific threshold by another firm (Carney et al., 2011). Sampling from publicly listed firms means BG researchers exclude a substantial population of unlisted firms and make cross-national comparisons difficult when studies use different ownership thresholds to determine group affiliation. WBES data is valuable in this regard since it uses a standard definition of group affiliation across jurisdictions. WBES data also meet the group criteria found in the literature specifically that 1) groups are formed by legally independent companies, 2) affiliated with a larger organization in a stable manner 3) subject to coordination and support by the larger enterprise (Castellacci, 2015). WBES establishes that a firm's autonomy according to the following criteria: a firm must i) be legally registered for tax purposes, ii) make its own financial decisions and iii) have financial statements separate from those of the group, iv) has management and control over its payroll and v), be owned by private domestic individuals, companies, or organizations. The survey is interested in individual firms but allows for the fact of the firm may be embedded in networks and broader enterprise systems and establishes whether the firm is either 'on its own' or 'related to another enterprise.' For firms that self-

identify as being related to another enterprise, we code as 1 and 0 otherwise. By these criteria, 19.95%³ of the sample is group affiliated.

For the institutional quality measure, we select the World Bank “Doing Business” Distance to Frontier (DTF) score, which represents the overall quality of a jurisdiction's business environment across a wide range of market institutions. To capture the business environment in standardized case scenarios, the World Bank offers a complementary data source: “Doing Business,” which measures the quality of market-supporting institutions and their enforcement across 190 economies since 2002. “Doing Business” covers 10 factors reflecting the needs of business at various stage of their life cycle from the start-up phase to eventual winding up of a business including securing construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. The methodology to determine these measures rely upon country-specific expert respondents’ (lawyers, accountants) assessment of a standard case scenario.⁴ The Doing Business methodology uses the DTF score to measure the gap between the country’s performance and the best practice across the entire sample. Then the scores obtained from each indicator are aggregated by simple averaging into one DTF score for each country, range from 0 the worst performance to 100 the frontier. In our sample, Angola obtained the lowest score at 37.52 while Sweden reached the highest at 81.93. This broad range of observation offers the

³ Many BG studies take their sample from a subset of a country’s firms, i.e public listed firms. However, the World Bank samples from the total population of both public and private firms in each country. Since BG affiliates are more likely to be publicly listed, our proportion of BGs affiliates is comparatively low.

⁴ For a comparative analysis and assessment of the World Bank’s Enterprise Survey and Doing Business methodologies see Hallward-Driemeier & Pritchett, (2015).

ideal composition of mid-range countries that situated above the least developed countries (0-30) while below most advanced economies (85-100).

Control Variables

To control for some known and expected effects, we included many firm-level characteristics as control variables. Since larger firms are more likely to be group affiliated (Khanna & Palepu, 2000), we control for *Firm Size* measured by the logged number of permanent employees.

Because the adoption of good management practice and external credit may reflect firm maturity, we control for *Firm Age* measured years of operation since establishment. While our sample is composed of private firms, some have mixed ownership. Therefore, we further control for several known ownership effects on a firm's management practices. First, we control *Foreign Ownership*, measured as the percentage of the firm owned by foreign individuals, companies or organizations, for its potential benefits from foreign owners who may transfer best practices and reputation assets from their country of origin (Belenzon & Berkovitz, 2010; Castellacci, 2015; Douma, George, & Kabir, 2006). Second, we also control *State Ownership* for its associated higher knowledge and credit support because state-owned firms are likely to give priority to state-building goals (Keister, 1998). We further include GDP per capita (Log value) as country-specific control, as well as the year and industry-specific fixed effects.

Method of Analysis

The econometric analysis seeks to estimate the relationship between group affiliation and firms' management practices and how this relationship is affected by country-specific business regulations. To test the hypothesis regarding our three measures practices, we estimated the following model specification:

$$\begin{aligned} \text{TRN}_{ij} = & a_1 + a_2 * \text{GAF}_i + a_3 * \text{DTF}_j + a_4 * \text{GAF}_i * \text{DTF}_j + a_5 * \text{SIZE}_i + a_6 * \text{AGE}_i \\ & + a_7 * \text{FORERIGNOWN}_i + a_8 * \text{STATEOWN}_i + a_9 * \text{GDPCAP}_j + a_{10} * \text{YEAR}_i + a_{11} * \\ & \text{INDUSTRY}_i + \varepsilon_{ij}, (1) \end{aligned}$$

$$\begin{aligned} \text{AGG}_{ij} = & b_1 + b_2 * \text{GAF}_i + b_3 * \text{DTF}_j + b_4 * \text{GAF}_i * \text{DTF}_j + b_5 * \text{SIZE}_i + b_6 * \text{AGE}_i \\ & + b_7 * \text{FORERIGNOWN}_i + b_8 * \text{STATEOWN}_i + b_9 * \text{GDPCAP}_j + b_{10} * \text{YEAR}_i + b_{11} * \\ & \text{INDUSTRY}_i + \varepsilon_{ij}, (2) \end{aligned}$$

$$\begin{aligned} \text{CRE}_{ij} = & c_1 + c_2 * \text{GAF}_i + c_3 * \text{DTF}_j + c_4 * \text{GAF}_i * \text{DTF}_j + c_5 * \text{SIZE}_i + c_6 * \text{AGE}_i \\ & + c_7 * \text{FORERIGNOWN}_i + c_8 * \text{STATEOWN}_i + c_9 * \text{GDPCAP}_j + c_{10} * \text{YEAR}_i + c_{11} * \\ & \text{INDUSTRY}_i + \varepsilon_{ij}, (3) \end{aligned}$$

For three dependent variables, we denote TRN as *Transaction Facilitator*. AGG as *Aggregators & Distributors* and CRE denotes *Credibility Enhancer*. The explanatory variables include group affiliation (GAF), “Doing Business” DTF score, an interaction term between GAF and DTF scores, and a set of control variables. Our hypotheses are tested by the sign and significance of estimated coefficients as follows: Hypothesis 1 implies that $a_2 > 0$, $b_2 > 0$; Hypothesis 2 implies $a_4 < 0$, $b_4 < 0$; Hypothesis 3 implies $c_2 > 0$; Hypothesis 4 implies $c_4 > 0$

Our three dependent variables are count measures that mark the number of practices that a firm may employ. To find a better-fit model, we first run OLS regression for the general continuous outcome but find a linear model that does not fit our data as predicted outcome exceeds the truncated boundary of our measures. Hence, we use Poisson regression to test relevant hypotheses. Poisson regression estimates count variable without over-dispersion and neither zero-inflation nor zero-truncated distribution. By conducting post-estimation analysis, we applied a goodness-of-fit test and obtained reasonable non-significant chi-square indicating our data fit the model well.

Results

Table 3 presents descriptive statistics which contains means, standard deviations, as well as the sources of all the variables used in our regressions. We found high correlations among our explanatory variables (GAF and controls), so we perform a VIF (variance inflation factor) test to detect multicollinearity. The Mean VIF for all variables was at 1.35; therefore, much less than the “rule of thumb” value at 10. This test also addresses concerns about the possibility of endogeneity among the explanatory variables. Tables 5 to 7 show the regression results for our three dependent variables, respectively. Follow the same steps; we first test estimation with only control variables that serve as our baseline specification, model 1 in all three tables. We then test the direct impact of group affiliation (GAF) and institutional environment (DB DTF) in models 2 and 3. Finally, we examine the moderation effects by including the interaction terms (GAF*DB DTF) in model 4.

--Insert Table 3 here--

For *Transaction Facilitation*, model 1 in table 5 shows that most controls are positive with statistically significant except state ownership. Consistent with our prediction, this preliminary evidence indicates that a set of organization features, such as firm age and size, as well as foreign ownership, are a critical indicator for efficient transactions with customers and suppliers. For *Aggregators & distributors*, model 1 in table 6 shows that bigger and older firms are more likely to obtain better resource allocation. Additionally, we find negative and significant coefficients from foreign and state ownership; this may be due to the advantage of being owned by resource-abundant owners, such as the government or MNEs.

We next begin our hypothesis 1&2 testing regarding the criteria for *Transaction Facilitator* and *Aggregators & Distributors*. The test for hypothesis 1 rests on the sign and

significance of a_2 in equation (1) and b_2 in equation (2), both refer to the coefficient of GAF across model 2 to 4 in table 5 and 6. Regression results show that the coefficients of GAF are consistently positive and steadily increased at a 99% level of significance. These results provide strong support for hypothesis 1, indicating that BG affiliates typically exhibit better management practices regarding aggregators & distributors and transaction facilitation than independent firms.

The test for hypothesis 2 is concerning the influence of surrounding institutions on management practices, especially for those BG affiliates. First, we test the sole impact of the quality of market-supporting institutions, which refers to a_3 in equation (1) and b_3 in equation (2). Both coefficients report positive signs and statistically significant at the 99% level across models 3 and 4 in Tables 5 and 6. This finding is consistent with our prediction indicating the institutional maturity promotes firm effectiveness in obtaining finance and completing transactions, in the overall population of enterprises. We then test the moderating effect of how context influences these relations by examining the interaction term ($GAF*DTF$, a_4 in equation 1 and b_4 in equation 2). In table 5, model 4, the coefficient of interaction term a_4 is negative and statistically significant (-0.006 at 99% level), suggesting BG affiliates no longer possess relative strength with transaction facilitation in mature institutional jurisdictions. In table 6 model 4, the coefficient of interaction term b_4 is positive but non-statistically significant (0.002), suggesting BG affiliates enjoy slightly better ratings of aggregators & distributors compared to independent firms in mature institutional jurisdictions. Thus, we find a mixed result for hypothesis 2 regarding practices related to concerning facilitating transactions. Our result supports the missing-institutions perspective that BG relative advantage will decay in the more mature institutional jurisdictions. However, in contrast, we do not find support for the missing

institutions' perspective regarding access to credit since affiliates continue to hold a marginal advantage over independent firms at the highest level of institutional maturity. This result points to positive and persistent BG effects that in jurisdictions with well-developed factor markets for credit.

To better visualize the moderation effects, we graph the marginal effects of the GAF dummy over the range of institutional maturity. For *Transaction Facilitator*, two linear curves in figure 3 represent BG affiliates (GAF=1) and independent firms (GAF=0). The respective line transaction facilitating begins with different probabilities (2.3 and 1.7) but intersect and cross at the point of DB score around 70. After this point, independent firms show better levels of transaction facilitation in maturing institutional jurisdictions.

For *Aggregators & Distributors*, the line in figure 4 representing BG affiliates and independent firms present is a similar trajectory with only minor differences in their slopes. Each begins at the same probability (0.8), and the two lines rise steadily over the range of institutional maturity. Indeed, we see BG affiliates beginning to pull away marginally from independent firms when institutions quality reaches a mid-range threshold around 50. To summarize, the findings present both positive and negative moderation effects on two types of management practices. We find mixed support for hypothesis 2: First, BG marginal advantages in facilitating transactions are gradually reversed, as market conditions gradually become more favourable to independent firms. Second, BG marginal advantages in aggregating and distributing capital persist and widen, as external market intermediaries become more accessible to independent firms.

--Insert Table 5 here--

--Insert Table 6 here--

--Insert Figure 2 here--

--Insert Figure 3 here---

For *Credibility Enhancer*, model 1 in table 7 shows that all controls are positive and statistically significant. We test hypotheses three and four with equation 3. For hypothesis 3, the test rests on the sign and significance of c_2 , which refers to the coefficient of GAF across models 2 to 4 of table 7. Consistent with our prediction, the coefficient of GAF is positive and statistically significant at the 99% level and the Chi-square and R-square of this specification both increase from our baseline model with only controls. This result offers strong empirical support that among the overall population BG affiliates are more likely to possess a better level of management practices relevant to credibility enhancement.

For hypothesis 4, the test is concerning the impact of institutional maturity on a firm's ability to project credibility. We again first test the sole impact of institutional quality, which refers to c_3 in equation (3) and can be found on the coefficient of DB-DTF across models 3 and 4 in table 7. The coefficient reports a positive sign with statistical significance. This finding is consistent with our prediction that institutional improvement will boost a firm's credibility by adopting those third-party standards in the overall sample. As above, then we test the moderation hypothesis 4 by examining the interaction term (GAF*DTF, c_4 in equation 3) constructed by GAF and DTF in table 2 model 7. This time we find the coefficient of the interaction term is positive (0.003) and statistically significant at 99% level, suggesting that BG affiliates in more mature institutional jurisdictions will enjoy an increasing advantage with credibility enhancing practices. A result offering strong support for hypothesis 4.

We again graphically illustrated these results to describe better how group affiliated firms and selection environments both create positive moderation effects over the entire range of

institutional conditions. In figure 5, we find two lines representing BG affiliated firms (GAF=1) and independent firms (GAF=0), both ascending with positive slope over the range of institutional maturity. Important to our theoretical argument, we find the slope for BG affiliates rises more steeply compared to that of independent firms. In other words, the gap between BG affiliated firms and independent firm widens as with increases in institutional quality.

--Insert Table 7 here---

--Insert Figure 4 here---

Discussion

With this paper, we address the puzzle of the unpredicted persistence of BGs in the mid-range and advanced jurisdictions with mature market supporting institutions (Khanna & Palepu, 2000). Specifically, we consider whether BGs who adopt certain management practice bundles can gain a sustainable, cumulative competitive advantage at later stages of institutional maturity. We base our theoretical logic upon literature suggesting that, regardless of institutional quality of market-supporting institutions, firms cannot acquire certain assets in factor markets (Dierickx, & Cool, 1989; Makadok, 2001; Teece, 2014) so they must develop and leverage them within a managerial hierarchy or alternative hybridized organizational form, such as the group structure.

Based upon a factor analysis, we identify three management practice bundles functioning as transactional facilitators, aggregators & distributors, credibility enhancers, respectively. And we reason that BGs advantages concerning transactional facilitation and aggregators & distributors will decline as a differentiating factor between-group affiliated and independent firms in jurisdictions with maturing market-supporting institutions. Alternatively, we hypothesized that credibility enhancement practices, because the reputational benefits of these

practices are hard to trade in factor markets, will continue to differentiate group affiliated and independent firms even where the relevant factor markets are in place.

While we find that BGs transactional facilitation advantage does decline, and independent firms appear to generate superior advantages with these management practices, eventually overtaking BGs in jurisdictions with high institutional quality. Contrarily, we find that BG internal market advantage as aggregators & distributors continues to differentiate group affiliates and independent firms. Much of the finance and accounting literature on BGs emphasizes the importance of capital markets and the deleterious effects of business groups on capital market development (Almeida & Wolfenzon, 2006). However, group affiliates' persistent aggregators & distributor advantage suggests that in jurisdictions with well-developed financial systems can encounter lingering market failures, such as information asymmetries that limit credit availability for some (e.g. small and new) firms. Finally, we find support for our sustainable BG advantage hypothesis, namely that credibility enhancing practices, underpinning firm reputation, increasingly differentiate group affiliates and independent firms

First, our study contributes to understandings of BGs evident persistence in the context of improving institutional quality. We build upon recent conceptual advances in the missing institutions perspective, suggesting that with the progression of technological opportunities, BGs may evolve to address emergent institutional voids, a phenomenon that may be prevalent in jurisdictions at different levels of institutional maturity. With our multi-country study of jurisdictions at various levels of institutional development, we suggest BGs advantage based on a capacity to create firm-specific (Teece, 1986) and non-tradable assets (Dierickx & Cool, 1989), such as credibility and reputation (Gao et al, 2017) with a comparative study of group affiliated and independent firms showing that credibility enhancing management practices that signal

reputation that is prized in both types of firm. However, we uncover fine-grained differences between the two in jurisdictions with different levels of institutional maturity. Specifically, that developments in factor markets enabling better quality transaction facilitation provide advantages to independent firms, but group affiliates continue to maintain advantages for aggregating and distributing and credibility.

Thus, in the context of improving institutional quality, management practices of group affiliates and independent firms may tend to converge to some degree, but each type of organization maintains different bundles of management practice advantages. In this view, there can be multiple optima among different types of institutional systems. Multiple optima suggest market supporting institutions can take different forms with relatively minor differences in terms of their capacity to support efficient performance among different organizational forms (Carney, Estrin, Liang, & Shapiro, 2019). Abandoning the BG form, through dismantling and refocusing, may be costly and, given the small performance differences between independent and BGs, some may be unwilling to incur the costs. In this regard, BGs may persist with their current structure and practices to maintain their advantage, albeit relatively small, as indicated by our data.

Moreover, BGs may be the primary beneficiaries of improved institutional quality since they are likely to be the largest, most reputable and well-known firms in the country, and both new domestic and foreign investors may also observe that BGs are efficient and managerially sophisticated (Siegel & Choudhury, 2012). Thus, we build on research primarily conducted on Indian Business groups to generalizable the kinds of group advantages that support their persistence and, potentially, their relative competitiveness. In this view, BGs persists because they are early adopters of good management practises that provide affiliates with a ‘head start’ in the race for competitive advantage. Our results show that group affiliates enjoy a widening

margin over independents in aggregating, distributing and credibility in jurisdictions with better institutions, suggesting a source of continuing competitive advantage. When and how business group affiliates ever shift to an alternative corporate structure remains an issue for future research. Indeed, with the progression of technology and new business models, institutional voids continue to emerge in the most institutionally advanced societies: for example, laws and regulations governing the new medical procedures and operation of drones are underdeveloped and limit the value of these new technologies (Khanna, 2018). Whether business groups or focused firms are better equipped to handle these emerging voids remains an open question.

Further, utilizing data collected by the World Bank, we add to the management practice literature, which calls for the assessment of different bundles of management practices across firms and countries (Bloom et al., 2013). The conception of management practices utilized by Bloom and his colleagues is based on a survey of both developed and emerging economies developed by an international consulting firm and identifies 18 ‘best practices’ in three areas namely, monitoring targets, target setting, and incentives (Bloom & Van Reenan, 2010). Perhaps unsurprisingly, on these criteria, firms from developed economies, on average, use better management practices compared with emerging market firms. Our data draws upon World Bank data that identifies firm characteristics and practices in areas that were believed to promote firm productivity and innovation in mainly underdeveloped and emerging markets and may be more representative indicators of management practises of firms that are seeking to catch up to the international productivity frontier. However, the World Bank developed in the early 2000s, and considerable research work has been done since then (Bloom & Van Reenen, 2013).

Consequently, our study uses indicators of management practice that may not appear to be particularly advanced or ‘best practice’ by contemporary international standards. For

example, having a website or contacting customers via e-mail maybe no longer viewed as a productivity-enhancing practice by today's standards. However, in the context of emerging markets, these practices may indeed be productivity-enhancing relative to the population of firms in the jurisdiction. Accordingly, we suggest these indicators are representative of relatively advanced management practices that are appropriate 'complementary bundles in this context emerging market context. For example, two of the characteristics of our credibility enhancement factor (a firm has internationally recognized quality certification and financial statements checked by a certified external auditor) are distinct indicators of a firm's reputation (Gao et al., 2017). But the other two practices that load into this factor (licensing technology from a foreign company and revenues from exporting) may equally signal a desirable reputational attribute such as international orientation (Petkova, 2016) which may resonate in other organizational areas such as the ability to attract better quality human capital. In this regard, we highlight the role of BGs as a conduit for the timely diffusion of institutionally relevant management practices. Future research that utilizes data with a more contemporary specification of firms' management practices would enhance the reliability of our analysis.

Finally, we acknowledge the limitation of our multi-country cross-sectional dataset. On this point, we recognize that our measures are only indicative of the potential for accumulating and combining more advanced management practice in ever more productive ways. The cross-sectional data is a second-best method to test our accumulative advantage logic, and ideally should be tested with longitudinal-panel data. There are obvious costs and difficulties in assembling cross-country longitudinal dataset we encourage future researchers to assemble such data to test temporal theories of BG performance and their persistence.

Conclusion

Our study offers a comparative perspective on emerging market BGs as an organizational form that exhibits specific bundles of management practices that provide concrete benefits to their affiliates at different stages of institutional development. However, in some 60 jurisdictions at different stages of institutional development, we find some group affiliates do not sustain all their management practice advantages in contexts with better institutional quality. Contrarily, we find management practices are emerging from aggregators & distributors and credibility enhancement do persist and accumulate over time, perhaps forming a basis for continuing competitiveness. Thus BGs represent an organizational form that accentuates and accelerates the accumulation of management practices that enable firms to catch up to the competitive advantages of independent firms in more advanced economies. Our study takes a novel stance on the growing discussion of BG persistence by decomposing universal BGs advantages into distinct bundles of management practice and therefore offering an alternate explanation of the relationship between institutional maturity and BG persistence.

Figure 1 Theoretical Framework

Transaction Facilitator and Aggregators & Distributors	<p>BG affiliates will exhibit better management practices reflecting their capacity to function as transaction facilitators and aggregators & distributors.</p> <p>(H1) +</p>	<p>BG affiliates' superior advantage with transactional facilitation and aggregator & distribution practices will be diminished in jurisdictions with mature market-supporting institutions.</p> <p>(H2) -</p>
Credibility Enhancer	<p>BG affiliates will exhibit better management practices functioning as credibility enhancer.</p> <p>(H3) +</p>	<p>BG affiliates' advantage from credibility enhancement will be sustained in jurisdictions with mature market-supporting institutions.</p> <p>(H4) +</p>

Low <----Institutional maturity----->High

Table 1: Sampled countries and years

Country	No. of Obs	Sample Year	Country	No. of Obs	Sample Year
Angola	360	2010	Malaysia	1,000	2015
Argentina	1,054	2010	Mexico	1,480	2010
Azerbaijan	390	2013	Mongolia	360	2013
Bangladesh	1,442	2013	Morocco	407	2013
Belarus	360	2013	Namibia	580	2014
Botswana	268	2010	Nigeria	2,676	2014
Brazil	1,802	2009	Pakistan	1,247	2013
Bulgaria	584	2013	Peru	1,000	2010
Cameroon	293	2009	Philippines	1,335	2015
Chile	1,033	2010	Poland	542	2013
China	2,700	2012	Romania	540	2013
Colombia	942	2010	Russia	4,220	2012
Côte d'Ivoire	361	2016	Rwanda	212	2006
Croatia	360	2013	Senegal	601	2014
Czech Republic	254	2013	Slovakia	268	2013
DR Congo	529	2013	Slovenia	270	2013
Egypt	2,897	2013	South Africa	937	2007
Estonia	112	2013	Sri Lanka	610	2011
Ethiopia	848	2015	Sweden	600	2014
Georgia	360	2013	Sudan	662	2014
Ghana	720	2013	Tanzania	813	2013
Hungary	310	2013	Thailand	1,000	2016
India	9,281	2014	Tunisia	592	2013
Indonesia	1,320	2015	Turkey	1,344	2013
Israel	483	2013	Uganda	762	2013
Jordan	573	2013	Ukraine	1,002	2013
Kazakhstan	600	2013	Uruguay	347	2010
Kenya	781	2013	Venezuela	320	2010
Latvia	336	2013	Vietnam	996	2015
Lebanon	561	2013	Yemen	353	2013
Lithuania	270	2013			

Note: "No. of Obs" refers to total observation from sample years.

	export	age1	size	gaf
export	1			
age1	0.0426*	1		
size	0.2889*	0.2310*	1	

gaf	0.0826*	0.0688*	0.2202*	1
bgp1	-0.0384*	0.0557*	-0.0322*	-0.0367*
revfr	0.0232*	0.0803*	0.0531*	-0.0096*

Variable	Mean	Std. Dev.	1	2
1.Export Intensity	9.247	24.111	1	
2.Age	2.666	0.773	0.0426*	1
3.Size	3.855	1.254	0.2889*	0.2310*
4.BG affiliation	0.200	0.400	0.0826*	0.0688*
5.BG Prevalence	0.126	0.242	- 0.0384*	0.0557*
6.Fragile Index	43.156	16.282	0.0232*	0.0803*

Table 2 Factor Analysis Results

Survey Items	Rotated Factor Loading (EFA)	Standardized Factor Loading (CFA)	Factor Generated
1. Communicate with clients and suppliers via website? (P)	0.6027	0.7637	Transaction Facilitator
2. Communicate with clients and suppliers by e-mail? (P)	0.5593	0.7477	
3. Has a checking and/or saving account? (C)	0.3625	0.5162	
4. Provides formal training programs for permanent, fulltime employees? (T)	0.3101	0.6591	
5. Purchased fixed assets in last fiscal year? (P)	0.3379	0.6184	Aggregators & Distributors
6. Has an overdraft facility? (C)	0.3382	0.6520	
7. Has a line of credit or loan from a financial institution? (C)	0.6637	0.7722	
8. Has applied for new loans/lines of credit? (C)	0.6282	0.7140	
9. Has an internationally-recognized quality certification? (P)	0.4859	0.7216	Credibility Enhancer
10. Financial statements checked & certified by external auditor? (C)	0.3005	0.5198	
11. Uses technology licensed from a foreign-owned company? (P)	0.3103	0.6640	
12. Has revenues from direct exports? (P)	0.3641	0.6151	
13. Pay for professional security services? (P)			Insufficient Loading
14. Has secured government contracts? (P)			
15. Has female top-managers? (T)			

Extraction method: Principal Component Factor Analysis with Varimax rotation

P-Product market, C-Capital Market, T- Talent Market

Table 3. Means, Standard Deviations, and Correlations

Variable	Mean	Std. Dev.	1	2	3	4	5
1.Transaction Facilitator	2.562	1.190	1.000				
2. Aggregators & Distributors	1.407	1.301	0.3935*	1.000			
3. Credibility Enhancer	1.196	1.093	0.4362*	0.3033*	1.000		
4.Group Affiliation	0.200	0.400	0.1507*	0.1073*	0.2266*	1.000	
5.Firm Age	2.647	0.779	0.1307*	0.1595*	0.2133*	0.0836*	1.000
6.Firm Size (Ln)	3.359	1.403	0.4509*	0.3229*	0.5393*	0.2195*	0.2647*
7. Foreign Ownership	5.842	21.611	0.1100*	0.0536*	0.2490*	0.1236*	0.0132*
8. State Ownership	0.629	6.212	0.0298*	-0.0147*	0.0510*	0.0341*	0.0339*
9. GDP Per Capita (Log)	8.320	1.001	0.2573*	0.1903*	-0.0538*	0.0298*	0.0268*
10.DB DTF score	57.933	9.156	0.1796*	0.1732*	0.0592*	0.0325*	0.0638*

Variable	6	7	8	9	10
6.Firm Size (Ln)	1.000				
7. Foreign Ownership	0.1689*	1.000			
8. State Ownership	0.0742*	0.002	1.000		
9. GDP Per Capita (Log)	0.0145*	0.0458*	0.007	1.000	
10.DB DTF score	0.0364*	0.0802*	-0.0207*	0.6371*	1.000

* p < .05

Table 4: Variable Definitions

Variable	Definition	Source
AGE	Year firm began operation to year of survey conducted	WBES
SIZE	Logged value of permanent workers	WBES
GAF	Dummy indicating whether firms being part of larger enterprise	WBES
DBDTF	Doing Business Distant to Frontier score	Doing Business
FOE	Percent of ownership own by foreign individual or organization	WBES
SOE	Percent of ownership own by government or state	WBES
GDPCAP	GDP per Capita (Log value)	World Bank
TRN	Number of practices that a firm applied as Transaction Facilitator	Calculated from WBES
AGG	Number of practices that a firm applied as Aggregators & Distributors	Calculated from WBES
CRE	Number of practices that a firm applied as Credibility Enhancer	Calculated from WBES

Table 5: Result of Regression on Transaction Facilitator

Variable	Model1	Model2	Model3	Model4
Firm Age	0.014** (0.004)	0.007 (0.004)	0.007 (0.004)	0.008* (0.004)
Firm Size (Ln)	0.131** (0.002)	0.128** (0.002)	0.125** (0.002)	0.124** (0.002)
Foreign Ownership	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)
State Ownership	-0.001 (0.000)	-0.001 (0.000)	-0.001 (0.000)	-0.001 (0.000)
GDP Per Capita (Log)	0.108** (0.004)	0.103** (0.004)	0.043** (0.005)	0.043** (0.005)
GAF		0.053** (0.007)	0.058** (0.007)	0.435** (0.045)
DTF			0.010** (0.001)	0.011** (0.001)
GAF*DTF				-0.006** (0.001)
Constant	-0.493** (0.045)	-0.430** (0.045)	-0.625** (0.046)	-0.722** (0.047)
Year Control	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes
Chi2	8,703.507	8,385.21	8,772.106	8,844.707
R2	0.050	0.049	0.052	0.052
N	51,651	50,569	50,569	50,569

*p< 0.10, ** p <0.05, *** p < 0.01

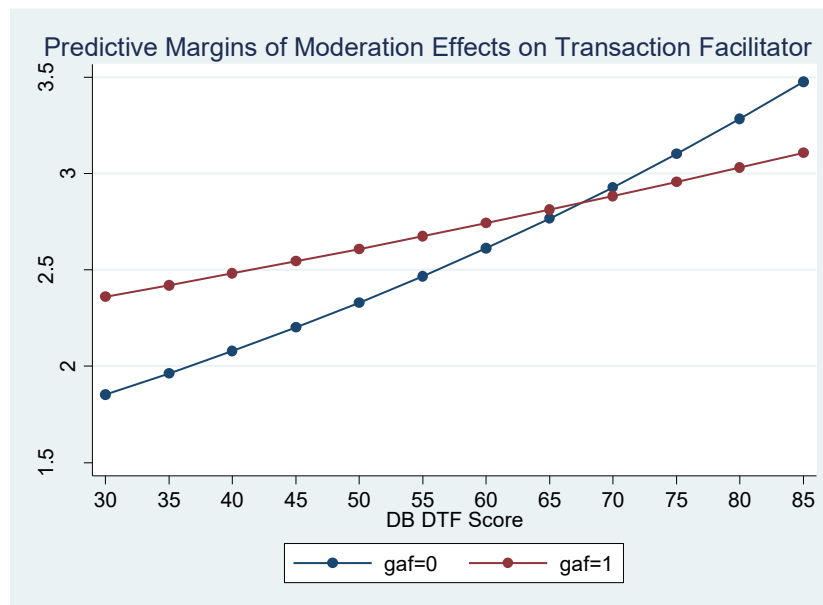


Figure 2

Table 6: Result of Regression on Aggregators & Distributors

Variable	Model1	Model2	Model3	Model4
Firm Age	0.031** (0.005)	0.024** (0.005)	0.025** (0.005)	0.024** (0.005)
Firm Size (Ln)	0.180** (0.003)	0.177** (0.003)	0.174** (0.003)	0.175** (0.003)
Foreign Ownership	-0.002** (0.000)	-0.002** (0.000)	-0.002** (0.000)	-0.002** (0.000)
State Ownership	-0.005** (0.001)	-0.005** (0.001)	-0.005** (0.001)	-0.005** (0.001)
GDP Per Capita (Log)	0.137** (0.006)	0.128** (0.006)	0.027** (0.007)	0.026** (0.007)
GAF		0.041** (0.010)	0.053** (0.010)	-0.039 (0.065)
DB DTF			0.016** (0.001)	0.016** (0.001)
GAF*DB DTF				0.002 (0.001)
Constant	-1.939** (0.067)	-1.835** (0.067)	-2.134** (0.069)	-2.110** (0.071)
Year Control	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes
Chi2	11,661.665	11,357.455	11,921.133	11,923.14
R2	0.075	0.075	0.078	0.078
N	49,250	48,224	48,224	48,224

*p< 0.10, ** p <0.05, *** p < 0.01

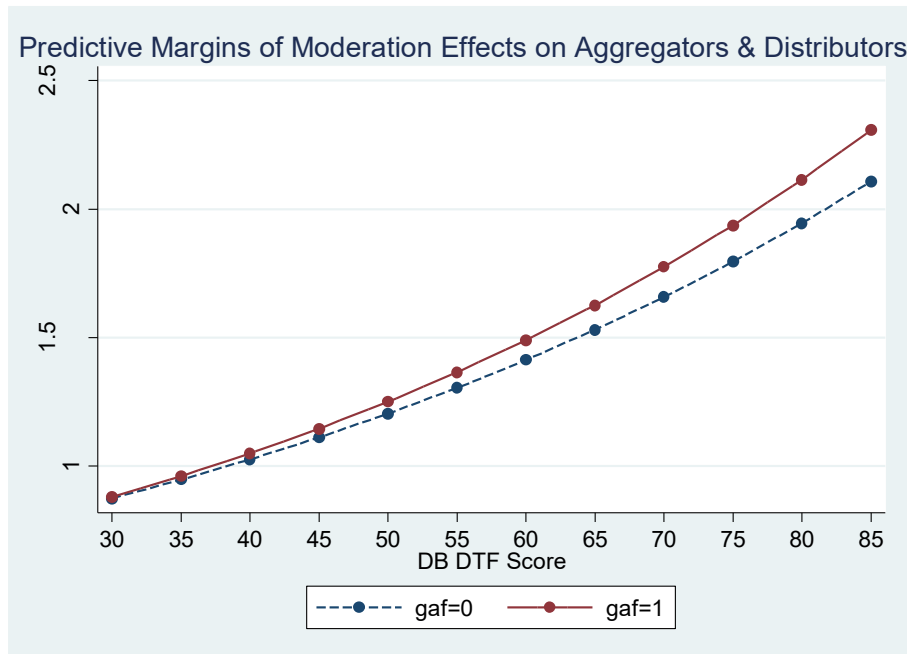


Figure 3

Table 7: Result of Regression on Credibility Enhancer

Variable	Model1	Model2	Model3	Model4
Firm Age	0.063** (0.006)	0.063** (0.007)	0.066** (0.007)	0.065** (0.007)
Firm Size (Ln)	0.273** (0.003)	0.265** (0.003)	0.263** (0.003)	0.264** (0.003)
Foreign Ownership	0.004** (0.000)	0.004** (0.000)	0.004** (0.000)	0.004** (0.000)
State Ownership	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
GDP Per Capita (Log)	0.071** (0.007)	0.070** (0.007)	-0.045** (0.009)	-0.046** (0.009)
GAF		0.133** (0.011)	0.139** (0.011)	-0.047 (0.072)
DB DTF			0.018** (0.001)	0.017** (0.001)
GAF*DB DTF				0.003** (0.001)
Constant	-2.223** (0.084)	-2.220** (0.085)	-2.529** (0.087)	-2.464** (0.090)
Year Control	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes
Chi2	13,472.715	13,441.042	13,788.76	13,795.584
R2	0.120	0.123	0.126	0.126
N	39,830	38,749	38,749.00	38,749

*p < 0.10, ** p < 0.05, *** p < 0.01

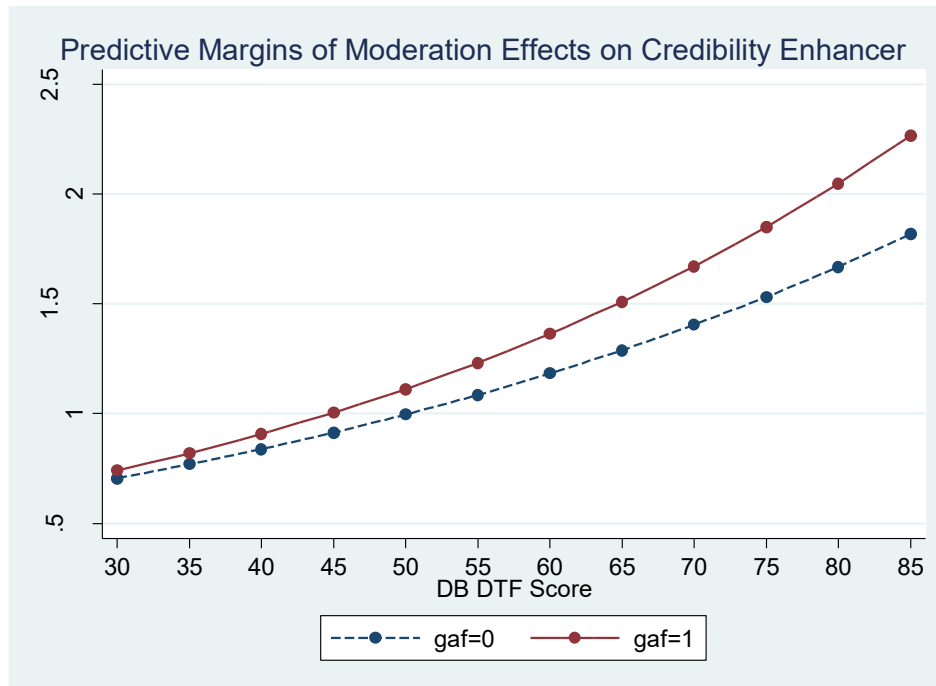


Figure 4

Essay2: Business Group Affiliation and Export Performance in Emerging Markets: A Nonmarket Capability Perspective

Introduction

Business groups (BGs) are a ubiquitous organizational arrangement, particularly in emerging markets (Khanna & Yafeh, 2007), where the BGs domestic share of economic activity can be substantial and, in some cases, increasing (Castellacci, 2015; Colpan & Hikino, 2018). Given their ubiquity, it is not surprising that considerable academic literature has evolved evaluating various aspects of their performance and impacts (For recent surveys see; Carney et al, 2018; Holmes, Hoskisson, Kim, Wan, Holcomb, 2018). The dominant approach to the analysis of BGs is the institutional voids (IV) or missing institutions (MI) perspective (Khanna & Yafeh, 2007; Hoskisson et al, 2005). The MI perspective suggests that BGs form in markets where institutions are weak and market failure, thus resulting in significant transaction costs for market transactions. As a consequence, BGs internalize markets and share these resources among a diversified set of affiliates.

The perspective results in two core propositions, the first being that because they have better access to resources, BG affiliates should out-perform non-affiliates and the second being that any advantage from BG affiliation should dissipate over time as institutions strengthen and the disadvantages of market transactions are reduced. As a corollary, these hypotheses also suggest that the advantages of BGs are largely location specific and one does not expect BGs to engage in international activities to any great extent. As the recent surveys by Holmes et al (2018) and Carney et al (2018) suggest, there is no unambiguous support for any of these propositions. In particular, some BGs not only persist as institutions strengthen, but they also compete in international markets, suggesting resilience and enduring competitive advantage

(Mukherjee, Makarius & Stevens, 2018). Persistence and international competitiveness raise questions about the kinds of resources business groups mediate their affiliates. Recent research has begun to probe the source of BG's enduring competitive advantage, identifying a range of group and affiliate-based capabilities.

In this paper, we approach the question of BG affiliate performance in emerging markets by augmenting missing institutions theory (Khanna & Yafeh, 2007; Hoskisson et al, 2005) with nonmarket capabilities (Doh et al., 2012; Mellahi et al, 2016; Henisz, 2016). We combine these perspectives through the lens of transaction cost analysis (Williamson, 1999) and BGs may then augment using internal markets developed in response to the market failures associated with missing institutions. However, we also argue that BGs possess nonmarket capabilities, which are intangible (Shaffer & Hillman, 2000; Morck & Yeung, 2003; Bonardi et al., 2006; Frynas et al., 2006) and characterized by high transaction costs (Sun, Mellahi and Wright, 2012) leading to internalization within the BG. Thus, BGs provide nonmarket capabilities associated with their political, social and business networks (Guillen, 2000), and these are only available to affiliates via the internal markets of the BG.

We therefore argue that any performance advantage associated with BG affiliation is the result of the internal provision of nonmarket capabilities. We thus argue that BGs can possess these capabilities and contribute to enhancing affiliate performance not just in the domestic market, but also in the international landscape. We find that BG has a positive effect on affiliates' export intensity. We also find evidence supporting the hypothesis that export performance of BGs is lower in countries with stronger institutions, but in neither case is the BG advantage entirely eliminated. Thus, we conclude that at least some BGs and their affiliates have, or can develop, the capability to expand their international operations over time.

Additionally, we investigate whether the performance benefits of BGs would erode as institutions strengthen, a corollary of the missing institutions perspective (Khanna & Yafeh, 2007). We integrate this prediction into our analysis and evaluate it in the vast collection of developing countries by testing the hypotheses that it will become less strong as institutions strengthen. Empirical tests regarding affiliation advantages from nonmarket capability align with the prediction of missing institutions perspectives: BG affiliated firms equipped with advanced nonmarket capability do have performance premium of early internationalization, but the maturing non-market institutions mitigate this premium gap between affiliated and freestanding firms.

Furthermore, we also address the possible “parasite” (Khanna & Yafeh, 2007) side of BGs by testing the hypothesis that as BGs become highly prevalent, they may collectively use their nonmarket capabilities for rent-seeking purposes that limit the attractiveness of exporting for all firms in a country, with consequent macroeconomic implications. We find support for this argument that BG prevalence with nonmarket advantage would retard all firm’s progress in internationalization at the national level. We then investigate whether this negative impact from BG prevalence would reduce if political institutions strengthen, an extended investigation follows the missing institution perspective (Khanna & Yafeh, 2007). By testing the relevant hypothesis, we gain evidence that higher institutional quality does offset or mitigate the downside from BG concentration on export propensity.

Our most important contribution is to the literature on BGs. First, we augment the missing institutions perspective to integrate nonmarket capabilities, and so provide a richer and balance understanding of the nature of the internalization of markets within BGs (Mahmood, Zhu & Zajac, 2011). This approach complements current literature that focused primarily on market-

enhancing capabilities associated with tangible assets like capital and labor (Khanna & Yafeh, 2007). Rather than stand on one side of the dichotomy paradigm, we identify nonmarket capability's influence on enhancing firm performance, as well as draw limitations on depressing market innovation. By considering the moderation role of institutions, we add evidence to the missing institutions literature that the value of nonmarket capability would be constrained by the growth of institutions, in particular, those regarding political stability and social welfare. Second, by examining export performance, a measure ignored in most previous BG literature, we provide insights into the puzzle of how BGs become internationally competitive since exporting can be a precursor to investing abroad. Therefore, we shed light on the early internationalization of emerging market firms (Bucheli & Salvaj, 2018; Fernández-Méndez et al, 2018). Finally, we use survey data from the World Bank Enterprise Survey (WBES) database, encompassing more than 60,000 firms in 57 countries with considerable institutional heterogeneity over eleven years, and augmented by country-level institutional data. Much of the previous literature on BGs has largely drawn on the experience of a relatively small number of national examples such as Chile (Khanna & Palepu, 2000b), Korea (Chang & Hong, 2000), Japan (Gedajlovic & Shapiro, 2002) and India (Kumar, Gaur, Pattnaik, 2012), and we therefore provide more general evidence on the nature of BGs. This dataset provides a wide variety of institutional and economic contexts, which allows a better understanding of the impact of institutional context and BG concentration.

Theoretical Background

Missing institutions and Affiliated Performance

The missing institutions perspective (Khanna & Yafeh, 2007) is the dominant approach to studying BGs (Holmes et al., 2018), focusing on how BGs create efficient *internal* markets in the face of widespread market failures. We argue that, beyond the idea of internal markets, the

missing institutions perspective undertheorizes the sources of BGs competitive advantages relative to freestanding firms. The idea of internalizing markets in response to market failure derives from transactions costs economics (Williamson, 1975, 1985). In its original formulation, TCE was concerned with technical causes of market failure including bounded rationality, asset specificity, and transaction frequency, within the context of a fully functioning system of market contracting. Williamson is also alert to organizational costs of internalized transactions, which provide limits to firm size and scope. He further noted the existence of a wide range of mechanisms designed to reduce transactions costs that lay on a continuum between a pure market and hierarchy. Subsequent research in TCE theory identified ‘the swollen middle’ (Hennart, 1993) of intermediate mechanisms that are neither hierarchy nor market but hybrids of the two. Indeed, Granovetter (2005: 428) defines BG as an intermediate between two extremes namely “sets of firms linked merely by short-term strategic alliances and those legally consolidated into a single entity”.

The missing institutions perspective relaxes the assumption of an efficient contracting environment; indeed, the absence of market supporting institutions is the primary organizational problem. With the progressive development of market supporting institutions, transactions costs in the economy as a whole should fall. However, the cost to affiliates of BG membership, which takes the form of insurance costs (Jia, Shi & Wang, 2013), propping, as well as other coordination costs, remains constant (Hoskisson et al 2005). Missing institutions theory therefore predicts that group affiliation becomes less attractive with the progressive development of market supporting institutions leading to a contraction in BGs size and scope, and their eventual disappearance as an organizational form.

The missing institutions literature suggests that BG affiliates will possess a performance advantage over non-affiliates, and this advantage will decline as institutional arrangements strengthen (Khanna & Palepu, 2000b). BGs are most pronounced when missing institutions are pervasive, allowing BGs to serve as ‘transactional arenas’ that enable affiliates to provide complementarities in the provision of factor inputs (Khanna & Palepu, 1999) and to coordinate activities across business units (Gao, Zuzul, Jones & Khanna, 2017). For example, in the absence of formal protection for property rights, BGs can serve as a microcosm of efficient contract enforcement: a “haven where property rights are protected” (Khanna & Palepu, 1997:7). Missing institutions can also include market intermediaries such as management consultants, executive search firms, and financial actors. BGs compensate for their absence by forming quasi-internal capital and labour markets (Khanna & Palepu, 1997) and by cultivating a reputation for reliability and integrity (Gao et al., 2017). However, in fact, this prediction has only mixed empirical support to date (Carney et al., 2011). At the same time, a growing number of studies find BGs competitive capabilities actually increase with the development of stronger institutions (Castellacci, 2015; Manakandian & Ramachandran, 2015; Siegel & Choudhury, 2012).

Internationalization, Export Intensity and Nonmarket Capabilities

Advocates of the missing institutions view argue that BG affiliates will have performance advantages over standalone firms because of their superior access to resources and capabilities whose acquisition via markets incurs high transaction costs (Khanna & Yafeh, 2007). An important measure of performance is the ability of the firm to compete in international markets, and most studies in the BG literature focus on the outward FDI (OFDI) of BG affiliates (e.g., Chari, 2013; Tan & Meyer, 2010; Kumar et al., 2012), with relatively few studies devoted to

exporting (Hundley & Jacobson, 1998; Tajeddin & Carney, 2018). However, the productivity requirements for exporting are lower than those required for investing abroad (Helpman, Melitz & Yeaple, 2004) so a focus on FDI imposes a performance standard that relatively few firms from most emerging markets can meet (Cuervo-Cazurra & Genc, 2011). Indeed, studies of OFDI by BGs have for the most part focused on a small number of countries, including Korea, India, Taiwan and Japan (Holmes et al., 2018). Thus, a research focus on exports rather than OFDI enables researchers to analyse a broader sample of firms from a larger sample of countries representing a broader range of development and institutional heterogeneity.⁵

The literature on the determinants of exporting has a long tradition of identifying the capabilities associated with successful exporting (Sousa et al., 2008; Bertrand et al., 2007; LiPuma et al., 2013; Chen et al., 2016; Chabowski et al, 2018). Early studies focused on broad indicators of capabilities, notably firm size and age (Bonaccorsi, 1992; Dhanaraj & Beamish, 2003), and this framing persists to some degree (LiPuma et al., 2013; Love et al., 2016). The literature has also grown to encompass a wide variety of potential determinants of exporting performance (Chi & Sun, 2013; Filatotchev, Stephan & Jindra, 2008; Ganotakis & Love, 2012; Lu, Xu, & Liu, 2009; Nguyen & Almodóvar, 2018; Bernard et al, 2018) but has not yet examined the role of BGs in enhancing export intensity, nor until very recently has it been developed with an explicit focus on emerging markets (Krammer, Strange & Lashitew, 2018).

⁵ A focus on exports also allows a clearer identification of the resources and capabilities associated with BG affiliation. For example, emerging market multinationals (EMNEs) may undertake OFDI for several reasons, only some of which involve the leveraging of firm-specific assets developed at home (Luo & Tung, 2007; Cuervo-Cazurra & Ramamurti, 2014); other motives include resource-, efficiency- and knowledge-seeking. Without controlling for these motives, it is difficult to isolate the nature of the resources and capabilities associated with BGs in studies of OFDI. Models of exporting are less prone to these problems.

Broadly speaking, most of these studies tend to take an RBV-based view of successful exporting, focusing of firm-specific capabilities (Wang & Ma, 2018), increasingly coupled with an institutional perspective suggesting that context matters for the export performance of firms, particularly small firms (Boehe, Qian & Peng, 2016; Krammer et al, 2018; LiPuma et al., 2013).

There is increasing recognition in the international business literature that nonmarket or external capabilities can be important determinants of international strategies (Bucheli & Salvaj, 2018; Fernández-Méndez, 2018; Li et al, 2018). Doh et al (2012) articulate the general importance of what they call nonmarket capital, which involves the ability of firms to influence the external environment including political and social actors (Shaffer & Hillman, 2000), and to create reputational capital that can be transferred across related units (Mukherjee, Makarios & Stevens, 2016). Henisz (2014; 2016) refers to these capabilities as corporate diplomacy. Guillen (2000) argued that the weak institutions characterizing emerging markets create opportunities for strong firms to create and exploit social and political networks, a nonmarket advantage accruing to the BG but not to other firms. Carney et al (2016) extend this idea to the internationalization of business groups and their ability to transfer institutional knowledge across borders.

It is important at this stage to be clear about the distinction between market and nonmarket capabilities. Market capabilities are those directed at employees, customers, suppliers and competitors while nonmarket capabilities are those that provide a firm with the ability to influence external stakeholders or to exercise “corporate diplomacy” (Henisz, 2014). Doh et al (2012:32) refer to them as nonmarket capital defined as “as the ability of firms to influence political and social actors and agendas using reputation, relationships, expertise, and finance”, while they are described by Fisman & Khanna (2004: 621) as internal “industrial embassies... whose sole purpose is to handle group relations with the government”. In addition, nonmarket

capabilities are generally non-tradable: they entail considerable firm-specificity, which makes it difficult for them to be bought or sold across the market interface and therefore must be utilized within the organizational setting which created them. Thus markets for nonmarket capabilities either do not exist or are at best imperfect, even when market institutions are strong (Sun et al, 2012; Gao, Zuzul, Jones & Khanna, 2017).

In summary, extant literature documented that any performance advantage associated with BG affiliation is the result of a collation advantage in the replacement of a series of market failures. We advocate this perspective but extend with nonmarket capabilities associated with relational, reputational and political networks. Together, these create the potential that will provide the BG and its affiliates with a competitive advantage, and with the ability to adapt to a changing institutional environment.

Hypothesis Development

The extant literature states that BG affiliates may have superior performance in financial measures, but we would expect that BG affiliates also advanced in the race of internationalization, relative to non-affiliates. We argue that the nonmarket-based capabilities are the main driver for their advantages in internationalization provided by BGs.

We suggest that the *nonmarket capabilities* of BGs provide affiliates with better access to exporting possibilities, over and above those associated with the market capabilities of the affiliate. Thus, at the political level, it is widely understood that weak national institutions present challenges for the international strategies of firms (Gaur et al., 2014). These challenges include access to government permits and patronage (Krammer et al., 2018), means of dealing with corruption (Fisman and Gotti, 2006) and the related uncertainty surrounding these weak institutions (Boehe, Qian & Peng, 2016; Gao et al., 2010). BG affiliation may bring with it

access to the networks and political channels that will alleviate these problems (Khanna & Yafeh, 2007).

Although political networks are important, the social and business networks available to BGs can be a nonmarket capability (Doh et al, 2012) that may serve to augment the capabilities of affiliates. For example, Chari & Dixit (2015) argue that BGs can improve their affiliates' international competitiveness by importing and disseminating among group affiliates new technologies and practices from more advanced economies. Thus, access to external networks provides BG affiliates with a competitive advantage and lowers the liability of foreignness in internationalization. In general, BGs may develop sharable intangible assets associated with their social, business and financial networks previously identified in the BG literature to include international marketing skills (Siegel & Choudhary, 2012), access to the foreign market knowledge and connections of sister affiliates (Lamin, 2013) group sponsorship of an affiliate into an international network (Elango & Pattnaik, 2007), or access to export credit (Auboin & Engemann, 2014).

BGs also differ regarding generating and maintaining ties in their business, social and political networks within and beyond the group. In a study of Indian software service groups, Lamin (2013) noted that BGs frequently have contacts and affiliates in surrounding countries that have resulted from groups' traditional ability to use their relationships in their home markets to venture abroad. BG relationships can provide access to information about market opportunities and clients to affiliated sister firms. Affiliates also provide information to potential clients about the capabilities and trustworthiness of these firms. Lamin concludes that Group affiliation not only exposes group firms to information that unaffiliated firms cannot access but also confirms additional information such as third-party referrals. Allowing other group affiliates

to capitalize on these advantages. Similarly, some BGs can develop portable institutional skills or establishing political alliances in overseas markets, Carney and colleagues (2016) describe the network building processes an Indonesian engineering and property development group to bring together military, bureaucratic, and political officials, to cooperate on large-scale development projects in South Asia and Africa.

Nevertheless, BGs with outward-looking network management and adaptability advantages will combine group support with affiliate autonomy. For example, BGs who form partnerships with multinational corporations may enjoy internationalizing advantages over BGs who use domestic political contacts to protect them from foreign competition (Elango & Paitnick, 2007). Equally, BGs with larger foreign networks are better able to access foreign clients and access to advanced technologies (Lamin, 2013). Using their sharing capacities, BGs can improve their affiliates' international competitiveness by importing and disseminating among group affiliates new technologies and practices from more advanced economies (Guillen, 2000; Chari & Dixit, 2015). Thus, generative capabilities with respect to external networks provide BG affiliates with a competitive advantage and lower the liability of foreignness in internationalization.

Thus, we propose that the nonmarket capabilities of BGs serve to augment the capabilities of affiliates by providing internal access to nonmarket capabilities that are unavailable to non-group members (Mahmood et al., 2011). In short, we identify a category of proprietary, group specific and largely nonmarket resources that reside at the group level which, through the quasi-market BG structure, can be disseminated to affiliates (Kock & Guillen, 2001) to enhance their export performance. We therefore argue that BG affiliation brings benefits arising from shared access to the nonmarket capabilities associated with the BG. Therefore,

H1: *Business group affiliates will export more (higher export intensity) than non-affiliates.*

As we argued that the benefits of group affiliation would promote export intensity, we now suggest that institutional strength will also impact the export advantage of BGs, by moderating the nonmarket capability advantage of BGs. We propose that a different notion of institutional quality, specifically concerning political institutions and political risk, applies to the BG's export intensity (Fisman, 2001). We suggest that the group-level capabilities we have associated with BGs, notably the value of relational and political networks, is expected to diminish as the state and civil society become stronger (Carney et al., 2018a). When states are weak, they can be captured by oligarchs; but the value of elite entrenchment and personal ties are reduced by state capacity building, including building strong democratic institutions. Thus, the "strength" of the state is related to its autonomy or freedom from dependence upon any particular sector of society (Evans, 1995) and this facilitates greater political accountability, bureaucratic transparency, and rule of law (Siegel, 2007). There is some evidence that state strength enhances internationalization for BG affiliates and non-affiliates. Thus, stronger institutions are associated with more exporting by private firms (Cuervo-Cazurra & Dau, 2009), small enterprises and younger firms (LiPuma et al., 2013).

Moreover, the potential disadvantages of BG affiliation increase as political and social institutions become stronger. We can identify three costs of affiliation: sticky commitments, group coinsurance and the bureaucratic costs of group complexity. Sticky commitments refer to an expectation that affiliates continue to remain loyal to one another even when the terms of trade between them are changed, turning the mutually beneficial exchange into a dysfunctional drag on efficiency. Similarly, coinsurance involves mutual propping up of member firms to reduce bankruptcy risk, which implies that underperforming firms must be subsidised (Jia et al.,

2013). Finally, as groups grow larger in scale and scope, they incur rising coordination and conflict resolution costs (Hoskisson et al., 2005). Critically, these costs of group affiliation are likely to increase with the development of social and political institutions, perhaps ultimately exceeding the benefits and thereby reducing relative efficiency and ability to export. In contrast, unencumbered by these costs, freestanding firms may be better positioned to respond effectively to market opportunities.

Thus, we expect that the benefits of BG affiliation concerning exporting will be less salient in countries with more developed political and social institutions. However, we also expect that the advantage will be diminished, but will not disappear. Because nonmarket capabilities cannot be acquired through market transactions but must be built within the organization their value does not dissipate with the construction of market supporting institutions. Thus, we expect that the BG export advantage will decline as institutions develop, but the will not be eliminated: some BGs will continue to benefit from their intangible group-level nonmarket capabilities, even as institutions strengthen.

H2: The positive effect of BG affiliation on export intensity will be diminished in countries where the quality of political and social institutions is higher, but will not be eliminated.

The analysis of the relationship between exporting, BG affiliation and institutional quality also needs to take into account whether BGs represent major or minor actors in the national economic context. We analyse these issues with reference to the concept of *BG prevalence* - the share of BG activity in total in the national economy (Carney et al., 2018). In fact, Carney et al, 2018) show that BG prevalence in emerging markets is typically high (averaging between 40 and 55%), though with considerable heterogeneity (ranging from 3% to 90%).

BG connections can facilitate both domestic and international linkages, consistent with our emphasis on the nonmarket advantages of BGs linked to political and other networks. Guillen (2000) argues that these network ties are difficult to imitate and provide resources such that BGs develop “an inimitable capability to combine foreign and domestic resources” (2000:367). However, the imitability of these advantages can be threatened by imports and foreign direct investment, especially from more developed economies and more technologically advanced and intangible asset rich competitors. Hence if in combination, BG leaders are powerful enough to influence this aspect of national policy, they may collectively impede the development of market supporting institutions that threaten their interests (Schneider, 2009). In so doing they make the domestic market more attractive than foreign markets and thus favour domestic diversification over exporting (Estrin, Meyer, Nielsen & Nielsen, 2017). Reduced export incentives may also arise from the ability of group affiliates to extract higher rents in the domestic markets compared with more competitive foreign markets; an outcome related to domestic market power and therefore the prevalence of BGs in the national economy. Affiliate loyalties and ‘sticky ties’ may also encourage a parochial outlook; for example, BG affiliates may be expected to look to one another for trading relationships (Li, & Samsell, 2009). Such expectations may create “complacency and a reduced incentive to export” (Hundley & Jacobson, 1998: 935). Moreover, BGs' nonmarket capabilities may be tilted towards domestic political networks and away from foreign networks, again favouring domestic activity for their affiliates. Thus, even though group affiliates enjoy superior access to group mediated resources, their embeddedness in a domestically oriented group structure may produce a more parochial orientation if BGs can collectively exert undue political influence.

Powerful and pervasive BGs may also support actions that limit the innovative capacity of other, non-affiliated firms. Thus, Morck and his colleagues (2005) contend that when economic control becomes concentrated in the hands of BGs, they use their political power to support measures that protect their elite positions, and thereby limit the dynamism of the economy. Thus, measures that restrict competition, in turn, inhibit innovation (Mahmood & Mitchell, 2004) and access to capital by freestanding firms (Almeida & Wolfenzon, 2006), both of which reduce their capacity to export. Schneider (2009) suggests that BG prevalence results in a “crowding out” of innovative, freestanding firms. For example, Tan & Mayer (2010:157) conclude that domestic political ties “inhibit international activities by being bound to the specific domestic context from which the BG originates.”

Thus, we propose that as BG prevalence increases within a country, the resulting exercise of monopoly power may reduce exporting by *all* firms in the economy, including BG affiliates. We, therefore, hypothesize that there will be a negative relationship between BG prevalence and the exporting performance of all firms.

H3: The export intensity of all firms, BG affiliates, and non-affiliates, will be negatively related to BG prevalence at the national level.

We argued in hypotheses 2 that the positive impact of BG affiliation on export intensity would be diminished when facing higher quality of political institutions. We also reason that improvement of these nonmarket supports may lower the harmful effects from high level of BG prevalence, such as inhibiting internationalization from other forms of enterprises. Because when political institutions progress with openness and fairness, access to licenses and permits should be eased without necessary mastering of nonmarket capabilities. Then freestanding firms will no longer be attracted to join BGs to acquire these capabilities because there are costs as well as

benefits of BG affiliation (Hoskisson, Johnson, Tihanyi & White, 2005). When the value of nonmarket benefits diminish, affiliates may find it no longer worth the cost to remain in the group and may choose to exit. Accordingly, in countries with better quality institutions, we expect the incentives for freestanding firms to join a BG will also decline. A counterforce was in effect to lower the level of BG prevalence nationwide.

Furthermore, as the civic state grows with changing the power dynamic, entrenched power elites will lose their interests in protecting domestic orientated BG within the political and social networks. Instead, long-term political ties whose value diminishes subject excessive political patrons' claims upon the group beneficiary to the contingent value, then contingent value costs can be incurred when political patron loses political power (Siegel, 2007). Once the political ties established the patron may reveal a 'grabbing hand' making costly demands upon the group. For instance, Dieleman & Sachs (2008) describes how Salim Group, Indonesia's largest business group, was subject to demands from Pres. Suharto to hire family members or fund their business projects. Following Suharto's overthrow in the wake of the Asian financial crisis, Salim group was prosecuted for corruption and fined some \$6 billion, the estimated market value of the group at the time. Consequently, a common practise of maintenance of sticky ties to domestic partners may force groups to remain loyal to a particular actor within the group's network, even when the value of a tie is diminished (Lincoln & Gerlach 2004).

Most importantly, we predict the "crowding out" effect that arises from exceeding BG concentration over the whole market would gradually recede as well due to the dissolving of domestic political ties. With the shrinking value of nonmarket capability from political networks, BG domestic power are hard to maintain their influence in favorable policies for trading and exporting. Thus, freestanding firms are more likely to navigate opportunities that appreciate

market-driven production innovation and technological upgrades. As non-affiliated firms are gaining their competence without considering too much about nonmarket aspect of the competition, they are less likely to be “crowding out” in exploring both domestic and foreign markets. As we argued in hypothesis 2, the marginal advantages of BG affiliation on export intensity will be diminished in countries where the quality of political and social institutions is higher. We follow similar rational and reason that the adverse effect from BG prevalence on suppressing exporting initiatives also reduces due to the improving quality of political and social support for the whole population of enterprises.

H4: The negative impact of BG prevalence on export intensity will be mitigated in jurisdictions with better political and social institutions.

Data & Methods

With a primary focus on less developed and emerging economies, the World Bank has undertaken firm-level surveys (World Bank Enterprise Surveys (WBES)) since 2006. The survey instrument is standardized, and each survey is a global stratified random sample with strata chosen to reflect variation in firm size, business sector, and geographic region of the country to facilitate cross-country comparisons. WBES data are used increasingly in economics and economic development studies (Harrison, Lin, & Xu, 2014; Mitton, 2016), management (Carney et al., 2018b) and in recent BG studies (Castellacci, 2015)). We use the most recent wave of surveys on 57 understudied countries conducted between 2006 and 2016. Our full sample contains 86,000 firms representing all sectors of economic activity, particularly in the manufacturing and service sectors. We exclude many extremely small firms (one or a few workers only), which are not suitable for analysis of internationalization. Table 1 summarizes the country-time dimensions of the sample.

Dependent Variables

The dependent variable in the empirical test is export intensity (*EXPORT*), defined as the percentage of sales directly exported (He, Brouthers, & Filatotchev, 2013). It is an indicator of successful firm performance and international competitiveness (Porter, 1990; Helpman, Mellitz & Yeaple, 2004; Bernard, Jensen, Redding & Schott, 2018) and many firms initialize their international activities through exporting (Johanson & Vahlne, 1997; 2009; Gaur, Kumar & Singh, 2014; Love, Roper & Zhou, 2016; Conconi et al, 2016). Therefore, following considerable literature (Filatotchev, Dyomina, Wright, & Buck, 2001; Estrin, Meyer, Wright & Foliano, 2008; Wang & Ma, 2018) we use export intensity as our indicator of international performance.

Independent Variables

The WBES is valuable for our research questions because it allows for the fact that the firm may be embedded in a broader enterprise; whether the firm is ‘a firm on its own’ or ‘related to another enterprise’. WBES then uses a standard definition of group affiliation across jurisdictions, which requires that firms identifying themselves as group members must be independent. WBES establishes that firms are independent according to the following criteria: a firm must i) be legally registered for tax purposes, ii) make its own financial decisions and iii) have its own financial statements separate from those of the group, iv) have its own management and control over its payroll and v), be owned by private domestic individuals, companies, or organizations. Thus, we classify firms that self-identify as being related to larger enterprise as group affiliated (*GAF*) and we code them as 1, and 0 otherwise. This definition meets the criteria for BG affiliation found in the literature specifically that 1) legally independent companies

comprise groups, 2) firms affiliated with a larger organization in a stable manner and 3) are subject to coordination and support by the larger enterprise (Castellacci, 2015). GAF is the independent variable in the export intensity equation.

Hypothesis 2 concerns the moderating effect of political and social institutions on this relationship. For this purpose, we employ the *Fragile State Index*, an institutional measure that aims to assess states' political and social stability. It ranks all sovereign states based on scores from 12 separate indicators related to various aspects of state stability and strength. Indicators are divided into three (social, economic, and political) categories, covering topics like human rights, the rule of law, economic equality, state legitimacy and public services. The original scale scores each indicator between 0 and 10, with a higher number indicating a higher level of fragility. For interpretation purposes, we reverse the scale with the inverted vector so that a higher number represents a lower level of state fragility or a higher level of stability. The twelve indicators are summed to create a scale spanning 0–120.

Finally, to test hypothesis 3 and 4 we need to measure BG prevalence effects. We therefore introduce a country level variable *BG prevalence*, which measures the degree of BG concentration within a country. We follow the market concentration literature and calculate this variable as a Herfindahl Index by summing the squares of the market shares of BG sales as reported in WBES within each country. It takes a value between zero and one.

Control Variables

To address potential omitted variable bias, we included several standard firm-level characteristics as control variables in each equation. Thus, since larger firms are likely both to be group affiliated (Khanna & Palepu, 2000a) and more productive (Hall & Weiss, 1967) and are more likely to export (Chen et al., 2016) we control for *Firm Size*, measured by the logged

number of permanent employees, in both equations. We also control for *Firm Age* measured by years of operation since establishment in both equations. As noted above, age is a prominent variable in the exporting literature, and could also be related to selection if older firms' capabilities are easier to evaluate. We also control for year- and industry-specific fixed effects.

Descriptive Statistics

We report all variable definitions and descriptive statistics in Table 2, which contains the means, standard deviations, minima, and maxima as well as the sources of all the variables used in our regressions. In Table 3, we report the correlation coefficients for the dependent variables as a few issues of collinearity occur: as one might expect firm size is quite closely correlated (above 0.2) with firm age, group affiliation. We address this issue by performing VIF (variance inflation factor) test to detect multicollinearity. The Mean VIF for all variables was at 1.06; therefore, much less than the threshold value of collinearity at 10, indicating our results are not affected by this collinearity.

Estimating equations and Method of Analysis:

We estimate an export performance in two equations, the first equation refers to test hypothesis 1 and 2, while the second equation refers to test hypothesis 3 and 4.

$$Export\ intensity = a_1 + a_2GAF + a_3FragileIndex + a_4Firmsize + a_5Firmage + a_6FragileIndex* \\ GAF + industry\ and\ time\ controls\ (1)$$

$$Export\ intensity = b_1 + b_2BG\ prevalence + b_3FragileIndex + b_4Firmsize + b_5Firmage + \\ b_6FragileIndex* BG\ prevalence + industry\ and\ time\ controls\ (2)$$

Our hypotheses are tested by the sign and significance of estimated coefficients as follows:

Hypothesis 1 implies that $a_2 > 0$; Hypothesis 2 implies $a_6 < 0$; Hypothesis 3 implies $b_2 < 0$;

Hypothesis 4 implies $b_6 < 0$.

In testing above models, we estimate equations (1) and (2) separately by using the fractional response regression technique. Fractional response regression fits a fractional response model for a dependent variable that is greater than or equal to 0 and less than or equal to 1. Our dependent variable export intensity appears to be fractional outcome that meets above criteria. To confirm our model selection, we conduct post-estimation goodness-of-fit test and compare model fittest scores with other regression technique, including OLS, Poisson and Tobit. Both AIC (Akaike's information criterion) and BIC (Bayesian information criterion) scores reassure our data would be best tested by fractional response regression.

Results

Hypothesis 1& 2 testing

The panel in Table 4 reports the results of the first equation; Model 1 includes all controls as baseline model. Regarding the control variables, our results are highly consistent across equations and largely conform to expectations. Thus, larger and younger firms are more likely to have a higher propensity to export. As hypothesis 1 testing rests on the sign and significance of a_2 in equation (1), our results show that the coefficients on GAF from model 2 to model 4 are quite large and always positive and significant at the 99% level. These results provide strong support for hypothesis 1, indicating that BG affiliates typically have higher export intensity than independent firms.

Hypothesis 2 argues that a stronger political, social and economic institutional environment, indicated by greater political stability, will negatively moderate the positive relationship between BG affiliation and export intensity. We test this hypothesis via the sign and significance of coefficient a_3 in equation (1), we first investigate the sole impact of the quality of political and social institutions, which refers to a_3 in equation 1. The coefficients report positive signs and statistically significant at the 99% level across models 3 and 4 in Tables 4. This finding is consistent with our prediction indicating the institutional quality promotes firm effectiveness in early internationalization, in the overall population of enterprises. We then test the moderating effect of how context influences these relations by examining the interaction term (GAF*Fragile Index, a_6 in equation 1). In table 4, model 4, the coefficient of interaction term a_4 is negative and statistically significant (-0.006 at 99% level), suggesting BG affiliates no longer possess relative strength with exporting activities in mature institutional jurisdictions. Our result supports the nonmarket capability perspective that BG has a relative advantage in promoting internationalization but also consistent with missing-institutions perspective that these advantages will decay in the more mature institutional jurisdictions.

To better visualize the moderation effects, we graph the marginal effects of the GAF dummy over the whole range of political institutions, measured by Fragile index. Two linear curves in figure 3 represent BG affiliates (GAF=1) and independent firms (GAF=0). The respective line export intensity begins with different probabilities (0.05 and 0.08) but intersect and cross at the point of Fragile Index score around 80. After this point, independent firms surpass BG affiliates with higher levels of export intensity in upper range of institutional measures, the probability of freestanding firm reach 0.16 compare to the one of affiliated firms at 0.14 when we institutional quality reach the top end of the spectrum.

Hypothesis 3 & 4 testing

We test the hypotheses 3 and 4 regarding BG prevalence in the second equation reported in Table 5. First, we hypothesized about the impact of BG prevalence would be negative on all firm's internationalization in the economy, affiliated and nonaffiliated. We test Hypothesis 3 by the sign and significance of the coefficient on BG prevalence, which refers to b_2 in equation (2). In table model 2 and 3, we find strong supports for H3 because the coefficients are consistently negative (-0.124 and -0.196) and statistically significant at 99% level, suggesting that concentration of BG power at the national level would retard all firm's propensity in exporting.

For hypothesis 4, we argue that a stronger political, social and economic institutional environment, indicated by greater political stability, will mitigate the negative relationship between BG prevalence and export intensity. We again first test the sole impact of institutional quality, which refers to b_3 in equation (2). In table 5 model 3 and 4, the coefficient of Fragile State Index reports a positive sign with statistical significance. This finding is consistent with our prediction that institutional improvement will boost a firm's propensity in exporting in the overall sample. As above, then we test the moderation hypothesis 4 by examining the interaction term (GAF*Fragile Index, b_6 in equation 2) in table 5 model 4. This time we find the coefficient of the interaction term is negative (-0.006) and statistically significant at 99% level, suggesting that negative impact of BG concentration would be offset in a more mature institutional jurisdiction. A result offering strong support for hypothesis 4.

We again graphically illustrated these results to describe better how the influence of BG prevalence being moderated over the progressing political institutions. In figure 5, we graph three lines representing different level of BG prevalence, low (0), medium (50%) and high (100%) respectively. All three lines ascending with positive slope over the entire range of Fragile

Index but intersect and cross at the point around 30. Accordingly, we find the low BG prevalence (Blue line) rise with the steepest slope even it starts at the lowest point. Medium level of BG prevalence (Redline) rises with the mid-range slope while high level of BG prevalence (Green line) rises with the flattest slope among the three. This provides strong evidents that firms in the context of low BG prevalence progress early internationalization most effectively, and this effect is more pronounced with mid to upper range of institutional support, especially those affecting political stability. In contrast, high level of BG prevalence retards the progress of international competitiveness for all firms, even with stronger political institutional support.

Discussion

In this paper, we point to a more balanced and nuanced understanding of BG group-level capabilities, and the potential usefulness of the nonmarket capabilities approach in emerging markets. Thus, we interpret the finding of a positive net BG effect on exports as implying that the possession of both market and nonmarket capabilities developed in response to institutional weaknesses in emerging markets (Doh et al, 2017), but that extends beyond developing internal markets for ordinary capabilities. The advantages we propose may be unique to BGs because they are intangible, transferable within the organization, and not available through market mechanisms, even as market and political institutions strengthen. In this view, BGs use their political, social networks and international networks to add value to affiliates in ways additional to the internalization of market capabilities. For export performance, these benefits of BG affiliation may include better access to export permits and export subsidies and superior connections to networks outside the home market, which allows the accumulation of relevant knowledge (Fernández-Méndez et al. 2018).

We tested our hypotheses using a large cross-national dataset of firms in emerging markets to extend our understanding of the nature and impact of BGs. This allowed us to consider the differences in BG performance across a broad spectrum of countries with different levels of institutional development. In using exports as a performance measure, we were able to contribute to an understanding of the early internationalization efforts of firms from emerging markets, and in particular those associated with BGs. Our results show that affiliation always enhances export intensity, which we suggest results from the intangible nonmarket capabilities available through the BG. This is consistent with the view that the superior capabilities associated with BGs are not simply internal labour and capital markets, but also include political and business networks at home and abroad. We estimate the scale of such effects to be large; if we compare BG affiliates with non-affiliates and find affiliation increases export intensity by 44.59%. Additionally, we have shown that these relationships are strongly contexted specific. Stronger political institutions diminish affiliate's export performance advantage over non-affiliates, but we find no case that BG advantage fully eliminated, so that although some BGs may dissolve, others will not. Our result supports our emphasis on the importance of nonmarket capabilities, whose value declines as political and social institutions strengthen.

We interpret these results to suggest that BG affiliation brings access to critical internalized capabilities that contribute to internationalization. Among these capabilities are access to strong political networks at a home and abroad. This is consistent with a recent meta-analysis suggesting that firms with strong political connections are *more* likely to engage in international activities, including exporting (Tihanyi et al, 2019), and with Jia (2016) who finds that market capabilities and nonmarket (political) strategies are complements. Thus, we propose that the combination of these intangible capabilities and market capabilities at the group level

may represent a potent bundling of competitive resources that jointly define the advantages of BGs in emerging markets. For example, ties with governments in several countries can become a source of institutional advantage for a multinational firm and their subsidiaries (Martin, 2014), such as energy companies have cultivated relations with multiple governments that have been usefully leveraged in other jurisdictions (Frynas et al., 2006).

To the extent, we found that nonmarket capabilities perspective offers interpretation of individual BG advantages on promoting export, which strongly advocates the “paragon” view of BG. However, we also find support on “parasite” view of the BG literature that high BG presence with massive power in hand could restrict other forms of enterprise in joining fair competition, including early internationalization. With the novel measure of BG prevalence, we perceive the limits to the beneficial impact of BGs on internationalization by identifying a potential negative effect on exporting if collective BG power was too great. Thus, it has been argued that if business groups collectively become too prevalent, they would exploit their nonmarket power to protect their monopoly positions in ways that limit economic development and produce inward focused activities for all firms. We found support for this argument; the coefficient on BG prevalence is always negative and significant in the export equation. Follow Morck’s reasoning (2005), this suggests that business groups can collectively engage in rent-seeking behaviour that entrenches them in domestic markets, they may limit their engagement in international markets. For example, domestic orientated BGs strengthen ties with political elites to define favourable national policy on trading or exporting, so as to constrain the resistance from the rest majority in the market. We further note that it would more likely to occur when the market appreciates nonmarket capability over other types of competencies, a tendency would largely remain unchanged if no external forces take into effect.

The tension result between positive group affiliates effects and the negative one from collective BG presence warrants more research. So we take a further step to consider the moderation role of political institutions on the adverse impact of BG collective power. As we find a high level of BG prevalence negatively associated with export intensity for all firms, our results show this association would be curbed in the context of higher political and social institutions, which require less engagement of nonmarket capabilities. Thus, we have shown that BG's nationwide influences are also strongly contexted specific, depends on the quality of nonmarket institutions.

Put together, we identify the role of nonmarket capability in BG internationalization, a perspective that complements BG literature that their advantages tend to be location-specific are not portable across national boundaries (Luo, 2003). The nonmarket capability perspective provides us a balanced understanding of both sides of the dichotomy paradigm, which has long been debated BGs are paragons or parasites. We come to test two ends of the story with firm-level benefit from group affiliation and national impact from BG prevalence. We find general explanation from our cross-country test that nonmarket capability functions as a double edge sword. On the firm level, we find consistent support with recent research that relational and network nonmarket capabilities were key to emerging market firms' internationalization process (Carney, Dieleman, & Taussig, 2016; Cuervo-Cazurra & Genc, 2011; Martin, 2014). On the national level, we find excessive popular of BG affiliation in an economy may contribute harmful effects on the progress of internationalization. In short, we provide evidence to resolve the dichotomy debate that nonmarket capability devotes benefits and costs to BG at the same time, only depends on the level of analysis. Interestingly, we see both features are subject to change if we consider the institutional context as moderation factor, especially those ones with

political and social aspects. That being said, we extend the discussion of the missing institutional perspective on the impact of nonmarket capability. We content that nonmarket capability is a crucial factor for BG persistence in emerging markets but can be mitigated at both firm-level and national level with the developing political institutions.

Limitations

A strength of this paper is the use of a large dataset at both the firm and the national level, which focuses on emerging markets, many of the understudied. The WBES is an important research asset for IB and strategy scholars, allowing us to test whether concepts and hypotheses developed in the context of economies with stronger institutions and higher levels of income per capita can be extended to cover emerging markets in which there is much greater heterogeneity of institutional norms and practices. However, this dataset is also the source of the main limitations of our study. Since we only measure institutional strength in a cross-section context, we may not capture the full dynamics of BG evolution over time. As such, we are inferring relationships such as the impact of institutions on exporting (H2) from variation in institutional quality across countries, rather than from variation in institutional quality within a country over time. It is quite a strong assumption that countries follow a similar path in the evolution of institutions so that one can infer effects from cross-country data. Future work might wish to address this limitation by exploiting more systematically the panel element of the WBES, or by developing new cross-country panel datasets in which the evolution of the relationship between BG affiliation, business context, and firm performance can be identified directly. Those superior capabilities may have been developed within the BGs, and only longitudinal data can resolve the question.

A second limitation of our work concerns the endogeneity of BG advantage. Endogeneity arises because BGs may be able to select affiliates more effectively according to their superior capabilities and may choose as affiliates firms that are best able to benefit from group capabilities. Similarly, firms with superior capabilities may seek to join the BG because they have the capacity to benefit from access its nonmarket capabilities. Hence, single equation estimates of the performance of BG affiliates may be subject to selection bias. Thus, we are unable to claim the causality of BG advantage due to the endogeneity issue. Future research is needed to identify the selection bias of BG members and their influence on firm capabilities. The use of this approach with a richer specification of the firm resources and capabilities would enhance the reliability of our analysis.

Finally, the data do not allow us to directly measure group-level relational, reputational and network capabilities, and we infer their existence as nonmarket capability. Future research would benefit from developing direct measures of these capabilities. For example, BGs may be able to adapt the nature of their group-level capabilities to focus more on knowledge networks and less on political networks. BGs that so adapt may be better positioned to seize emergent opportunities (Lamin, 2011; Manikandian & Ramachandran, 2015; Siegel & Choudhary, 2012). In general, our results reinforce the arguments made by Carney and colleagues (2018a) who suggest that the evolution of BGs is contingent on both their institutional context and their capacity for internal adaptability and organizational learning.

Conclusions

Our study of the role of BGs and their impact of affiliate internationalization in a large sample of emerging markets offer some fresh insights into the behavior and impact of these ubiquitous emerging market business institutions. We find evidence, both consistent with the “paragon”

view of BGs (Khanna & Yafeh, 2007) that affiliation with a BG enhances export performance; as well as with “parasite” view that BG’s prevalence would inhibit economy growth and liberation. We argue that these positive and negative effects reflect a combination of internalized group-level, nonmarket capabilities of BGs, and propose that these may have properties that allow BGs within a specific country to persist, even as institutions strength within that country. The evidence we provide that across countries with stronger institutions are associated with weakening BGs impact on the firm and national accounts but may not fully disappear.

Our nonmarket capabilities perspective on BGs has considerable significance in the direction of future research. We have already noted important areas for future research arising from the limitations of our dataset. In addition, a deeper analysis is needed to understand the factors that lead business groups to select particular affiliates from among the potential candidate firms and the incremental benefits that this selection and the group’s resources go on to provide. This is ultimately a dynamic story and one that needs to be understood better to explain the somewhat counterintuitive positive role of BGs in the development process identified in this paper. Our empirical work points future research in the direction of much more careful specification and explanation of business relationships that are conditional on institutional factors.

Figure 1: The Model and Hypotheses

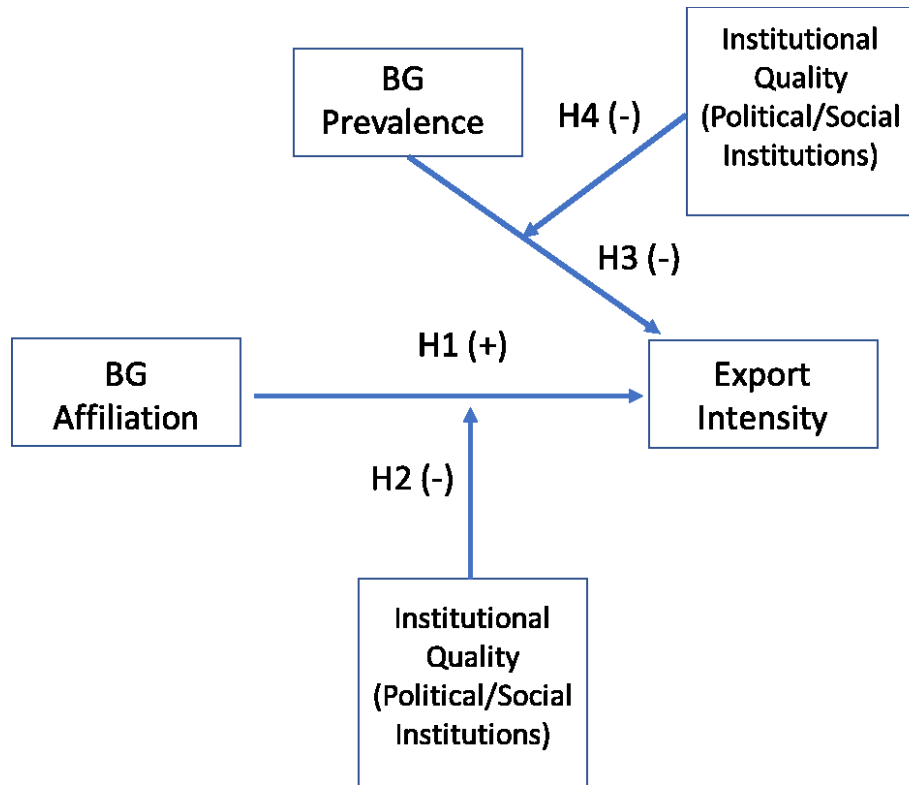


Table 1: Sampled countries and years

Country	No. of Obs	Sample Year			Country	No. of Obs	Sample Year	
Angola	229	2006	2010	Malaysia	523	2015		
Argentina	1,074	2006	2010	Mexico	1,621	2006	2010	
Azerbaijan	176	2009	2013	Mongolia	193	2009	2013	
Bangladesh	2,174	2007	2013	Morocco	165	2013		
Belarus	132	2008	2013	Namibia	164	2006	2014	
Botswana	93	2006	2010	Nigeria	1,212	2007	2014	
Brazil	1,135	2009		Pakistan	1,283	2007	2013	
Bulgaria	584	2007	2009	Peru	828	2006	2010	
Cameroon	72	2009		Philippines	1,365	2009	2015	
Chile	1,168	2006	2010	Poland	238	2009	2013	
China	1,511	2012		Romania	256	2009	2013	
Colombia	970	2006	2010	Russia	1,612	2009	2012	
Czech Republic	154	2009	2013	Rwanda	32	2006		
DR Congo	214	2006	2010	Senegal	276	2007	2014	
Egypt	1,534	2013		Slovakia	133	2009	2013	
Estonia	112	2009	2013	Slovenia	118	2009	2013	
Ethiopia	440	2011	2015	South Africa	502	2007		
Georgia	172	2008	2013	Sri Lanka	225	2011		
Ghana	319	2007	2013	Sudan	88	2014		
Hungary	125	2009	2013	Tanzania	396	2013		
India	6,455	2014		Thailand	631	2016		
Indonesia	1,415	2009	2015	Tunisia	270	2013		
Israel	167	2013		Turkey	1,627	2008	2013	
Jordan	261	2013		Uganda	350	2006	2013	
Kazakhstan	315	2009	2013	Ukraine	923	2008	2013	
Kenya	588	2007	2013	Venezuela	62	2010		
Latvia	122	2009	2013	Vietnam	1,118	2009	2015	
Lebanon	180	2013		Yemen	216	2010	2013	
Lithuania	144	2009	2013					

Note: "No. of Obs" refers to total observation from all sample years.

Table 2. Means, Standard Deviations, and Correlations

Variable	Mean	Std. Dev.	1	2	3	4	5	6
1.Export Intensity	9.247	24.111	1					
2.Age	2.666	0.773	0.0426*	1				
3.Size	3.855	1.254	0.2889*	0.2310*	1			
4.BG affiliation	0.200	0.400	0.0826*	0.0688*	0.2202*	1		
5.BG Prevalence	0.126	0.242	-0.0384*	0.0557*	-0.0322*	-0.0367*	1	
6.Fragile Index	43.156	16.282	0.0232*	0.0803*	0.0531*	-0.0096*	0.1600*	1

Table 3: Variable Definitions

Variable	Definition	Source
AGE	Year firm began operation to year of survey conducted	WBES
SIZE	Logged value of permanent workers	WBES
GAF	Dummy indicating whether firms being part of larger enterprise	WBES
EXPORT	Sales exported directly as percentage of total sales.	WBES
BGP	BG concentration within a country \sum (BG shares ²)	Calculated from WBES
FRAGILE	Fragile State Index	Fragile Index database

Table 4: Results using the sample excluding small firms

Variable	Export as Dependent Variable			
	Model 1	Model 2	Model 3	Model 4
Firm Age (Log)	-0.098** (0.016)	-0.091** (0.016)	-0.098** (0.016)	-0.098** (0.016)
Firm Size (Log)	0.539** (0.008)	0.496** (0.009)	0.495** (0.009)	0.496** (0.009)
GAF		0.228** (0.029)	0.227** (0.029)	0.507** (0.084)
Fragile Index			0.010** (0.001)	0.011** (0.001)
GAF* Fragile Index				-0.006** (0.002)
Industry Control	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes
Cons	-4.988** (0.124)	-4.859** (0.125)	-5.270** (0.130)	-5.344** (0.131)
Chi2	6,822.722	6,168.731	6,098.732	6097.833
Log Likelihood	-16,686.621	-15,870.601	-15,824.870	-15820.79
N	62598	60215	60215	60215

* p<0.05; ** p<0.01

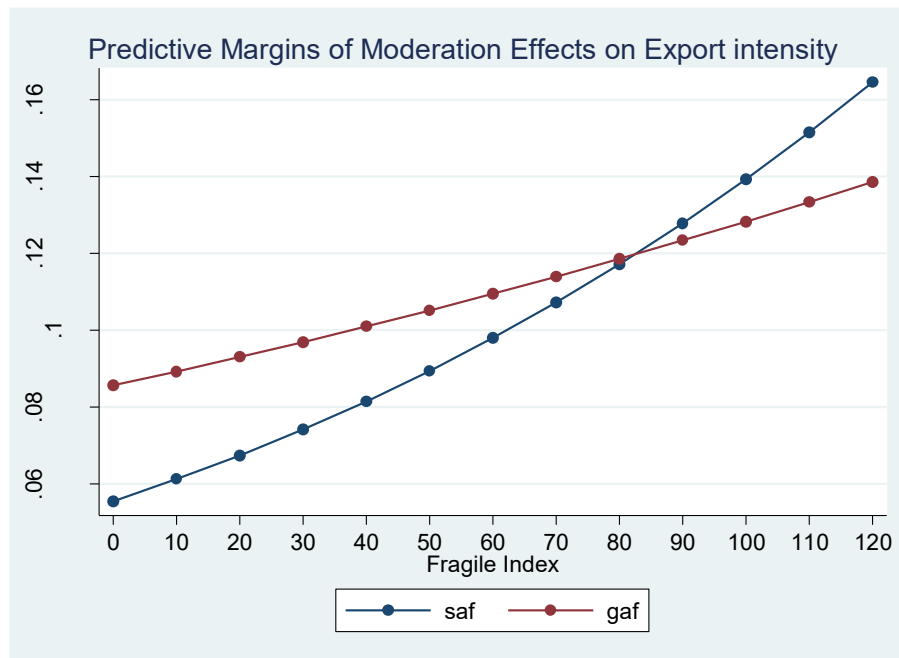


Figure 2

Table 5: Results using the sample excluding small firms

Variable	Export as Dependent Variable			
	Model 1	Model 2	Model 3	Model 4
Firm Age (Log)	-0.098** (0.016)	-0.097** (0.016)	-0.103** (0.016)	-0.102** (0.016)
Firm Size (Log)	0.539** (0.008)	0.539** (0.008)	0.540** (0.008)	0.541** (0.008)
BG Prevalence		-0.124* (0.060)	-0.196** (0.059)	0.173 (0.133)
Fragile Index			0.009** (0.001)	0.010** (0.001)
BG Prevalence* Fragile Index				-0.006** (0.002)
Industry Control	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes
Cons	-4.988** (0.124)	-4.979** (0.124)	-5.343** (0.128)	-5.425** (0.133)
Chi2	6,822.722	6,864.125	6,785.485	6,790.769
Log likelihood	-16,686.621	-16,685.272	-16,647.813	-16,645.582
N	62598	62598	62598	62598

* p<0.05; ** p<0.01

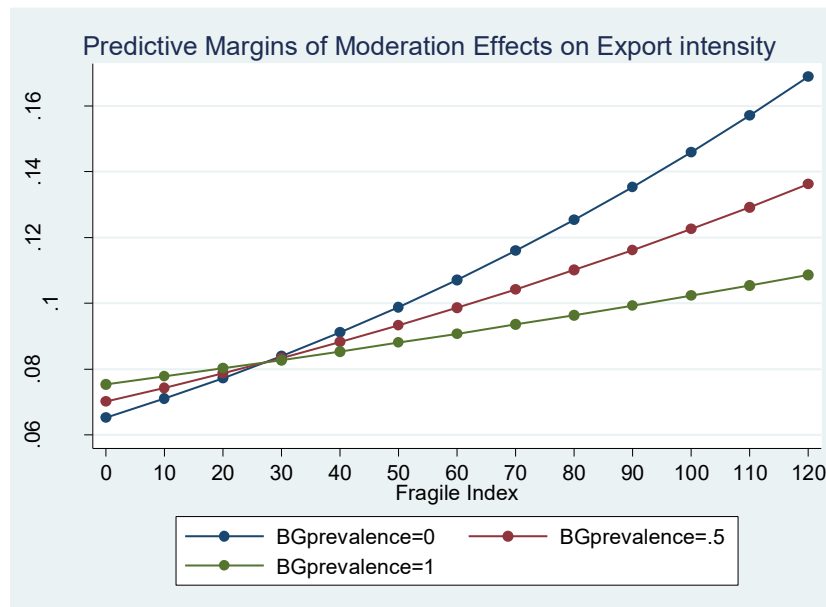


Figure 3

Essay 3: Why Do Asian and Latin American Business Groups differ? An International Political Economy Perspective on Business Groups' Early Internationalization

Introduction

In much of the developing world, the diversified business group (BG) has become the preferred corporate structure used by governments in pursuance of international competitiveness for its domestic firms (Amsden, 2001; Keister, 1998; Khanna & Yafeh, 2007; Schneider, 2013).

Previous research has identified considerable heterogeneity among emerging market BGs in terms of structure and performance (Yiu, Lu, Bruton & Hoskisson, 2007; Carney et al., 2011; Carney, Estrin, van Essen & Shapiro, 2017). Scholars often attribute this heterogeneity to country-level factors such as the quality of institutions, culture, and internal politics (Chung, 2001; and Schneider 2013; Khanna & Palepu, 2010; Gaur, Kumar & Singh, 2014; Hu, Cui & Aulakh, 2019).

The dominant perspective regarding the competitive advantages of the BG takes a process view (Khanna & Palepu, 2010). This proposes a three-step developmental path for BGs. Initially, BGs emerge or are induced by developmental states in the context of immature factor markets, inadequate physical infrastructure, and an absence of market-supporting institutions (Khanna & Palepu, 2000 a,b). In these environments, BGs initially mediate financial, human and technological resources to their affiliates who can strengthen their managerial and technological capabilities (Chang, 2006). Second, affiliates with the requisite capabilities begin to internationalize in the export mode (Guillen, 2000; Keister, 1998). Subsequently, some affiliates engage in outward foreign direct investment for asset-seeking purposes or to exploit their propriety organizational capabilities (Makino, Lau, & Yeh, 2002; Lamin, 2012; Gaur et al, 2014).

Thus, process models, such as the institutional view, suggest that BG affiliates will follow a sequence of stages that govern their international market commitment. However, it is understood that these processes may operate differently across emerging economies where structural features of the market can induce the evolution of unique internationalization processes, which are country-specific (Gammeltoft, Barnard & Madhok, 2010). Despite this recognition, there are few studies that examine the internationalization of emerging market firms, BGs or otherwise, using a broad sample of emerging market countries (Carney, Estrin, Liang & Shapiro, 2019). In this paper, we posit that the process may operate quite differently among emerging economies, not only because of country-specific institutional differences but also where particular structural features may either accelerate or retard internationalization processes. We, therefore, complement process theories of emerging market BGs' internationalization by considering the *structural conditions* for successful early-stage internationalization by emerging market BG affiliates. Our specific research question concerns how the location in a geographic region affects the ability of BGs to develop the capabilities required for international competitiveness, with specific reference to the role of geography in shaping the evolution of Latin American and Asian BGs.

To explore this theoretically, we employ an international political economy (IPE) perspective in which history and geography matter combine to create specific structural conditions that shape the internationalization process. IPE is concerned with the organization of production, finance and credit, and global knowledge flows and their relationships with national security, law, institutions, and government policy. Most succinctly, IPE is about 'the politics of international economic relations' (Strange 1994|2015:12). For our analysis, the IPE perspective offers a geopolitical understanding that *locations*, specifically a set of geographically contiguous

countries (e.g. Latin America, Eastern Europe, and sub-Saharan Africa) with a broadly shared history, can evolve similar institutional features that go on to determine the nature of corporate strategies and structures. We apply an IPE framework to trace differing international security arrangements in the Asian and Latin American regions and show how these different international security systems have had long-lasting effects on the organization of production, finance and credit, and global knowledge flows in different locations (Stubbs, 2017; Strange, 1994; Stopford, Strange, & Henley, 1991). In so doing, we also respond to the challenge to more explicitly close the gap between international politics and management research (Phan, 2019).

In particular, we compare Asian and Latin America BGs, the most prevalent corporate structure in each region (Chang, 2006; Schneider, 2013), providing both an IPE analysis and an empirical exploration of the impact of geographic location on the early internationalization of BG affiliates. Although there is a strong consensus that Asian BGs have achieved significant international competitiveness in terms of both exports and outward foreign direct investment (Holmes et al., 2017), Latin American BGs may deviate substantially from the institutional logic of recent BG research (Grosse, 2007). Our IPE approach suggests why this might be the case, and we provide supporting evidence.

We argue that differing international security arrangements in the two regions have had differing regional effects on nation states' autonomy, which in turn have had long-lasting effects on the organization of production, finance and credit, and global knowledge flows, as well as BG strategies and structures. Thus, in Asia, we describe the impact of US post-World War II containment policy as a bulwark against Asian communism through the provision of a security umbrella in East and Southeast Asia (Beeson, 2007). Over four decades the US containment policy enabled East Asian states to pursue an export-oriented development policy (Stubbs, 1999,

2017). The associated IPE ‘policy package’ provided East Asian states assured access to US markets, large-scale west-east knowledge transfers, the relocation of manufacturing production to Asia, and an autonomous finance and credit regime for Asian financial institutions. Under this IPE, we explain the appearance of widespread adoption of the BG as a preferred corporate structure used to create international competitiveness through firm knowledge building, skill development, and the acquisition of technological capabilities.

The comparable Latin American IPE arrangement stems from the US Monroe Doctrine. We document the doctrine's consequences for production, finance, and knowledge transfers, notably resulting in BGs with a strong domestic orientation toward commodities and non-tradable services (Fracchia, Mesquita, & Quiroga, 2010; Grosse, 2007; Lefort, 2010). Thus, many LA-BGs have their origins in resource-based industries and are driven by the commodity boom-bust cycle to diversify into countercyclical sectors, largely at home (Schneider, 2013). Consequently, instead of constructing advanced managerial and technological capabilities that would support internationalization, the logic of LA-BGs structure is a portfolio or asset holding structure designed to mitigate macroeconomic instability and the commodity cycle risk (Aldrighi & Postali, 2010; Castellacci, 2015; Schneider, 2008).

The IPE approach therefore suggests that LA BGs are different from Asian BGs, in particular with respect to their international competitiveness. We therefore explore the exporting behaviour of BG affiliates, with a focus on these regions. Exporting is recognized as an indicator of successful firm performance and international competitiveness (Bernard, Jensen, Redding & Schott, 2018) and many firms initialize their international activities through exporting (Johanson & Vahlne, 1997; 2009; Gaur, Kumar & Singh, 2014; Conconi, Sapir & Zanardi, 2016). We employ data from the World Bank Enterprise Survey of emerging market firms (World Bank,

2011), with a particular focus on our two geographic regions of interest, Asia and Latin America from which we draw some 18,000 observations. In our empirical exercises, we investigate whether internationalization performance of BG affiliates is significantly different in Latin America relative to Asia, and in both from other developing economies, controlling for other potential explanatory factors. We view our research as exploratory, and therefore do not offer hypotheses, but rather use our results to as a means to investigate the validity of the IPE approach.

Thus, we contribute to the BG heterogeneity literature by identifying the political and institutional forces in specific locations - geographic regions - that create heterogeneity among the BG population, in particular concerning the outcomes of internationalization strategies. On this basis, we also contribute to the growth strategy and international business literature on BGs and their international performance. Perhaps most importantly, in applying the IPE framework to the question of BG performance across countries, we address the need better to integrate international politics and management research (Phan, 2019).

In the following section, we outline our IPE approach to explaining the differences in internationalization performance between BGs in Asia and Latin America. We then present the data and the methods we use to explore these ideas, before presenting and discussing our empirical results. In the final section, we draw conclusions and implications for future research.

Theoretical Background

The IPE framework

IPE is an interdisciplinary approach to trade and foreign investment integrating economics, politics, and international relations. It focuses on the interaction and comparative influence of

states and firms in the international system (Stopford, Strange, & Henley, 1992). Strange (1994) identifies four core structures of power in the international bargaining process: security, the organization of production, finance and knowledge. In IPE, the *security structure* represents a framework that is created by the provision of security by some states for others. By security, we refer to both military protection and intelligence as well as other aspects of state security, potentially including policing. The providers of such security acquire certain types of power; states and firms may acquire for themselves particular advantages in the production or consumption of wealth or other rights and privileges. For these reasons, “the security structure inevitably has an impact on the ‘who-gets-what of the economy’ (Strange 1994:45).

The *production structure* refers to the arrangements determining what is produced by whom and for whom, by what methods, and on what terms. National factor endowments play a large part in determining the production structure, but increasingly knowledge and intellectual property play a more decisive role. Globalization has produced a new international division of labour, in which manufacturing production has shifted from advanced to developing countries. Western, and later Japanese MNEs, played a significant role in organizing this enormous spatial shift in what is a continuing reorganization of the production system (Gerrefi, 2014; Baldwin, 2016). Since the production structure creates wealth in the political economy, in addition to security, power is held by those who manage production (Strange, 1994:64). The *financial structure* has two components: the first determine how credit is created and allocated. Strange (1994) argues that it is credit rather than capital accumulation that drives firm’s growth in emerging markets. The second is the monetary system that determines currency values and how much scope the state allow markets to operate the financial system (Strange, 1994: 90).

Finally, the power arising from the *knowledge structures* is difficult to quantify as it encompasses communications, information, skills, and knowledge asymmetries. In recent years, innovation-based services have become everywhere increasingly important vis a vis the primary and manufacturing sectors. Firms' ability to extract value from knowledge is supported by increasingly codified international rules under the aegis of international organizations such as the World Intellectual Property Organization and, the 1994 Agreement on Trade-Related Aspects of Intellectual Property (TRIPS), which established a new era of enforceable rules respecting intellectual property protection (Sell, 2010). Unlike the positive power associated with providing security, production capacity, and credit, Strange observes that the power available in the knowledge structure 'is the negative capacity to deny knowledge, to exclude others, rather than in the power to convey knowledge' (1994:119).

In this paper, we use the IPE framework to explore the effects of different power arrangements on the organization of production, finance and credit, and global knowledge flows. We consider two geographic regions with very different security arrangements - Asia and Latin America - and consider how these four IPE structures of power shaped BG strategies and structure in their early internationalization in each. We focus on the effects of security as a fundamental driving force since it underpins many of the postwar Bretton Woods international institutions that govern the functioning of the national production, finance, and knowledge structures. From the middle of the 20th Century, US military power provided the underpinnings of the world economic system. The containment of the Soviet Union in Western Europe provided the logic for the Marshall plan. In the wake of the Korean War, the US administration supported the industrialization of Japan, Korea and Taiwan beneath the US security umbrella as a bulwark

against Asian communist expansion. By 1960, it was evident that a containment strategy would be the first US response to what they perceive as ideological and military threats (Strange, 1988).

While doubts have existed about the durability of the US security umbrella for many years (Keohane, 1984), our focus on security seems especially appropriate at the time of writing, with the current US administration reconsidering its international security commitments along with China's projection of military and economic power in the South China Sea, Africa and across East and Western Asia, in part via the Belt and Road Initiative (Cox, 2018).

The International Political Economy of the Asian BG Model

The Security Structure

US containment policy originated with George Kennan's 1945 Long Telegram from Moscow to US intelligence regarding the Soviet Union's long-term objective of exporting communism. The prevailing security structure across East and Southeast Asia is a product of this policy to provide a bulwark against Asian communism through the provision of a security umbrella. The primary US strategy was enabling friendly pro-US governments in the region to strengthen their intelligence and internal security, administrative capacity, and physical infrastructure. US involvement in the region supported vulnerable regimes by assisting with the suppression of left-leaning parties and labour organizations.

The first test of the security umbrella came with North Korea's 1950 invasion of South Korea and the US entry into the Korean War. To assist the American war effort, Japan and Taiwan were the primary beneficiaries of US military and economic aid. First, to support the war, US aid helped to reconstruct Japan and Taiwan's physical infrastructure (ports, energy supply, and telecommunications). The Japanese economy benefited directly through the injection

of American military spending: as Kennedy observes (1988:538) "Toyota, for example, was in danger of foundering when it was rescued by the first of the US Defense Department's orders for its trucks; and much the same happened to many other companies." Subsequently, postwar South Korea also benefited substantially from US assisted reconstruction. Between 1953 and 1963, South Korea received over \$8.3 billion in military and economic assistance from the US, which accounted for 80% of the country's total fixed capital formation in the period (Stubbs, 1999).

The flood of US AID stimulated by the Korean War and heightened Cold War tensions began to ebb in East Asia just as the threat of Communist expansion intensified throughout Southeast Asia (Duiker, 1994). In a replay of the East Asian containment strategy, the US offered military aid and infrastructure construction to thwart communist insurgencies in Southeast Asia (Crouch, 1973; Stubbs, 1999). However, the primary stimulus for the economic reconstruction of Southeast Asia came from the intensification of the Vietnamese conflict (Kang, 2017). The first beneficiaries of the Vietnamese conflict were Thailand and Singapore, which the US viewed as important operational hubs for military and intelligence operations. Thus, in both East and Southeast Asia, US interests and attendant military and economic aid supported the establishment of strong-states, with a powerful military, security, and civil bureaucracy to coordinate strategic and economic development (Evans 1995). Hence, the IPE foundations of the Asian economic development from Japan, Taiwan and Korea to the 11 ASEAN countries can be traced to the first two decades of the Cold War (Beeson, 2007; Stubbs 1999).

The Production Structure

An IPE 'policy package', about production, finance, and knowledge flows was combined with this US security umbrella. For our purposes, its most important features of the US containment strategy was access to low preferential tariffs for collaborating states and a provision that

allowed Asian states to discriminate against US exports by applying quotas and licensing restrictions (as well as compliance with US trade embargoes against the USSR, China, and East Europe) (Strange, 2015). This asymmetric trade policy enabled Asian states to develop a production structure based upon export-oriented development. This US support of Asian export-oriented development provided a long period of protection for Asian firms in which to develop the technical and managerial capability to compete in international markets.

The Credit Structure

Related to their export-oriented development strategy, these Asian states fostered a finance and credit regime that actively suppressed equity markets (Prowse, 1996). By this, we refer to the cumbersome government regulations and restricted issuance procedures whose purpose was to retain control over credit allocation in the hands of the state (Krugman, 1994). Scholars in the institutional view characterize weak capital markets as a missing institution, but in the IPE perspective, it is a policy specifically intended to enable the state to manage incentives by funnelling capital to firms who were compliant with the state developmental agenda (Amsden, 2001). Indeed, even in the wake of the Asian financial crisis, Asia retained its financial autonomy (Bowles, 2002).

The Knowledge Structure

Pivotal in the construction of internationally competitive Asian firms were large-scale west-east knowledge transfers, initially enabling these companies to catch up with Western rivals in terms of manufacturing know-how and ultimately leading to the relocation of much manufacturing production to Asia. Within Asian firms, subcontracting to an original equipment manufacturer provided a mechanism that served as a training school, enabling firms to overcome entry barriers and assimilate manufacturing design technology (Hobday, 1995). While there were differences

between East and Southeast Asia in terms of the involvement of the US and Japanese multinationals, the needs of export customers drove the pace of learning and acted as a focusing device for technological assimilation, adaptation and innovation (Hobday, 2000). Continuing Asian economic development also engendered a virtuous circle facilitating the expansion of the education system, which led to the emergence of a skilled labour force (World Bank, 1993). Thus, despite their favourable mineral and agricultural resource endowments, Asian states adopted export-oriented development by serving as production platforms for global commodity chains (Gerrifi, 1999; Stubbs, 1999).

The shared experience of the US security umbrella in the front line in the fight against Asian Communism, receiving flows of American financial and technical aid, and access to US export markets meant that the capitalist countries in the Asia-Pacific region developed along relatively similar political and economic lines (Amsden, 2001; Stubbs, 2017)⁶. Moreover, former communist states in Asia (China and Vietnam) to some degree followed the Asian BG model to pursue export-oriented development, while retaining communist leadership and state direction of the economy. China was particularly studious in learning from the Japanese experience: as Nolan (1996: 9) summarizes “China's strategy recalls that of Japan in the 1950s and 1960s.” Under this IPE, we see the appearance of widespread adoption of the BG as a preferred corporate structure used to create international competitiveness through firm knowledge building, skill development, and the acquisition of technological capabilities.

The Emergence of Internationally Competitive Asian Business groups

⁶ However, US support for Asian states did not always have a positive economic impact; the Philippines, home to major US Air Force and Naval bases, remains economically behind (Stubbs, 2017).

Thus, the IPE of the Asian states orchestrated a delicate balance of protectionism, incentives and exposure to foreign competition in a drive for international competitiveness, supported especially for the US strategic allies in the containment strategy by guaranteed access to North American markets. The balance comprised an infant industry trade and investment regime, described as selective by Amsden (2001), combined with a gradual liberalization of that regime that exposed the principal corporate organisations - BGs - to global competition so as to stimulate organizational learning and capability development (Mathews, 2002).

The rise of BGs occurred from the outset of the new IPE in the region. Thus, though the US occupational forces disbanded Japan's family-controlled BGs, Zaibatsu, in the immediate aftermath of WWII, they were permitted to reemerge in their present form, as Keiretsu, following the US adoption of the containment policy (Morikawa 1992). In a pattern of conscious emulation of the success of the Japanese model, other East, and Southeast Asian, states actively promoted the emergence of their own BGs, which became the emblematic corporate form in the region (Carney, Gedajlovic, & Yang, 2009). Advocates of BGs as the instrument of economic development propose a multi-stage co-evolutionary path in which the strength of the competitive or selection environment interacts with the quality of the local factor supply markets and firm incentives to develop strong organizational capabilities (Guillen, 2000; Carney, Estrin, Van Essen and Shapiro, 2018).

In the initial phase, domestic firms are encouraged to enter selected industries with the promise of state financing, subsidies, and protection from external competition. BGs then selected their affiliates for their capacity to use local contacts with government officials and controllers of financial resources as well as the contacts with foreign firms to sources organizational capabilities and advanced technologies (Kock & Guillen, 2001; Shapiro, Liang,

Estrin, Carney, 2019). A necessary correlate of the selection environment is a policy described by Amsden (2001) as *selective seclusion*: states must exclude MNEs from areas targeted for industrial development. If BGs are successful in attracting resources by finding ways to perform effectively despite weak factor markets, they can focus their attention on developing organizational abilities, executing projects and building efficient scale plants. The task of seclusion often entailed removing MNEs from the region in what Amsden describes as decolonization: Decolonization was most developmental when it included the expulsion of foreign-owned enterprise to be replaced by group organized enterprises... Certainly, many Asian countries sought to keep multinationals at bay (Amsden, 2009:73).

BG affiliates became strongest in Asian countries with prewar manufacturing experience where decolonization involved not just ‘kicking out foreign rulers’, but also ‘kicking out’ foreign firms. In South Korea and Taiwan, this entailed largely expropriating the assets of Japanese colonial-era firms. Following the conclusion of the suppression of the communist insurgency in 1960, Malaysia began to acquire controlling stakes in colonial era groups (Drabble & Drake, 1981). Indeed, across East and Southeast Asia, colonial-era European firms encountered governments that were increasingly hostile and nationalist, intent on developing a local capitalist class (McVey, 1996). In this environment, much of the population of European trading firms elected to liquidate their assets in the region and to operate as footloose multinational enterprises (Jones, 2000). By doing so, space was created for domestically owned firms to develop. “BGs were able to spread their wings always creating opportunities for developing countries to reach the highest levels of skills and the means to expand overseas’ (Amsden, 2001).

Selection into BG affiliation at this stage was based upon developing generic manufacturing capabilities as well as abilities to cope with market failures (Guillen, 2000). To

the extent that local firms begin to develop organizational and technological capabilities in advanced project and process innovation, then the selection environment becomes based on firm competencies and their capacity to compete in international markets by exporting (Koch & Guillen, 2001). However, the seclusion of protected industries must be a time-limited policy. Asian industrial policy regimes progressively exposed its 'greenhouse capitalists' to foreign competition, and they made subsidies and protection contingent upon the achievement of improved price and quality achievements. In this way, Asian states were able to "enforce the emergence of a free market rather than allowing the creation of rental havens" (Evans: 1995:57). This was reinforced by the Asian states' control over the financial structure, which enabled further disciplinary control over firms. In this period of relative capital scarcity, credit for export-oriented development strategies was controlled by state-owned banks and allocated to firms was based on the achievement of export targets, quotas, product quality. Thus, the state control over credit provided local states with a further disciplinary mechanism over corporate conduct (Evans, 1995; Prowse, 1996). Moreover, the broader is the scope of BG operations and the more significant is group visibility, the more the BG is able to attract the best talent.

Together, this policy and resource development strategy fosters the achievement of global productivity standards at the industry level. The sequence of Asian development tracks a trajectory of export-oriented development described as the Flying Geese model, with Japan at the fore followed by other East Asian states, and later South East Asian states (Kasahara, 2013). China's later entry into this development process was shaped by different, mostly domestic influences. However, it is under the US security arrangement that Asian states enjoyed the autonomy to implement export-oriented development policy, and this autonomy is reflected in Asia's competitive BGs.

The International Political Economy of the Latin America BG Model

The Security Structure

A strong state with the autonomy to manage its production and finance structures is a necessary condition for a successful export-oriented industrial growth strategy (Evans, 1995; Johnson, 1982). However, in Latin America, state autonomy has consistently been constrained by outside interests. The US Monroe Doctrine, which defines the relevant IPE framework for Latin America originated from a US commitment in 1823 to protect the Latin American states from the threat of the re-colonialization by European powers. Many Latin American states had gained their independence from Spanish and Portuguese colonial interests during the early 19th century and in response, the US government under President Monroe developed the eponymous doctrine, which proclaimed that any attempts by European colonial powers to retake control of an independent North or South American territory would be considered 'a manifestation of an unfriendly disposition towards the United States' (Herring, 2008). The initial reaction in Latin America to the Doctrine was generally favorable, and states were jealous of their newly won independence. The principles of the Monroe doctrine have been strictly enforced over the centuries with frequent military interventions, with some designed to change political regimes so the US has evolved an expectation that it could exert its influence in the region, unchallenged by European powers or any form of collective action by Latin American states. Hence, the US State Department has retained for decades substantial influence in Latin American states' affairs. One scholar characterizes the relationship in the following terms "US foreign policy actions

conditions the patterns of interaction not only in the system as a whole but also inside individual countries” (Nef, 2000:404).⁷

The Monroe doctrine predates 1945, but the ensuing Cold War intensified US intervention in Latin American state affairs. Postwar efforts by Latin American states to establish reform and economic nationalism triggered US concerns that were magnified and distorted by Cold War rhetoric. Local states that attempted to assert their autonomy with left-leaning reform programs were branded as international communism by interests in the US State Department. Following the Cuban revolution 1953-8, the US began to offer military aid to Latin American governments who claimed to be threatened by a communist insurgency. The left-leaning Brazilian government in 1963, which sought to introduce reforms including a plan to socialize the profits of the large companies, faced a military coup supported by the US in 1964; this resulted in a military government lasting until 1985 (Skidmore, 1989). Zeitlin and his colleagues (1974) argue that US mining and copper interests precipitated the overthrow of the left-wing Allende regime in Chile in the 1970s. The US also supported the covert training of guerrilla resistance to Nicaragua Sandinista revolutionary government, coordinated by the CIA between 1979 in 1984 (Nef, 2000). We briefly document below some of the Doctrine's consequences for Latin American production, finance, and knowledge structures.

The Production Structure

In post-World War II Asia, MNEs were primarily Japanese or European who could be dislodged by the nationalist government, with the tacit support of the US. A significant feature of the Latin

⁷ Lest one thinks that the Monroe doctrine is but of historical interest, a recent interview quoted John Bolton as saying: “The Monroe Doctrine is alive and well. It’s our hemisphere.” (Filkins, April, 2019)

American production system is extensive and long-term involvement of US multinationals, who were never dislodged. Their influence in maintaining their prevalence in the region is therefore a corollary of the region's IPE. Multinational enterprises comprised 39% of Latin America's 500 largest firms in 2001 (Schneider 2013). Indeed, the early penetration of foreign multinationals in the period before 1945 meant that Latin American BGs formed in later periods did not enter the sectors where MNEs already held extensive interests (Amsden, 2009). Instead, internationally competitive local firms tended to focus on resource sectors.

The Credit Structure

Latin American states had long encountered internal capital constraints on their policy initiatives and this constraint intensified dependence on US debt (Edmund, 2007; Babbs, 2013). Most remained dependent upon foreign debt, and their financial institutions have not attained the same level of autonomy like those in Asia (Evans, 1995). Through the 1970s and 1980s, the combination of repressive military regimes and a neoliberal policy environment unfolded in Latin America. Thus, World Bank and IMF aid to military regimes that resulted in deep indebtedness, especially in Argentina, Brazil, and Venezuela, since they required conditionality including Washington consensus requirements for reduced public spending and opening economies to trade and investment (Babbs, 2013).

The Knowledge Structure

MNEs in Latin America have not conducted themselves in a manner that produces significant spillovers into the local economy; for example except for some R&D in Brazil, MNEs do virtually no research in Latin American countries (Schneider, 2013). Amsden's caustic critique states "MNEs abetted technological underdevelopment in Latin America because they kept R&D activities 'overwhelmingly at home.'" Rather than training skilled workers who might spill over

into working for domestic firms, MNEs typically poach the few skilled workers they need from local employers. For the most part, MNEs are concentrated in low skilled technology sectors. MNEs are often linked into global commodity chains and forge few backward linkages into the local economy (Schneider, 2013). “In sum, MNCs brought a lot of capital, created jobs, and transferred some technologies. However, the broader and longer-term contributions were uneven. FDI did not increase overall investment, tended not to develop backward linkages, extended MNC control over trade, and, outside Brazil, did not bring much investment in R&D. Over the longer term, MNCs boxed domestic firms out of several sectors and generally depressed demand for skilled workers” (Schneider 2013:84).

Latin American Business Groups

The significant role of BGs in Latin America is a well-established phenomenon (Grosse, 2007; Schneider, 2013; Strachan, 1976). Along with a few state-owned enterprises and, importantly a significant representation of multinational enterprises, family-controlled BGs are by far the dominant corporate form in the region's largest economies including Argentina, Brazil, Columbia, and Chile (Grosse, 2007; Schneider, 2013). For example, in Chile, BGs are the main form of corporate structure, with some 50 BGs controlling 91% of the assets of publicly listed companies, and these rates have remained stable over time (Schneider, 2013:49).

There are anecdotal data about the adaptability and resilience of some Latin American BGs, (Aldrighi & Postali, 2010; Castellacci, 2015; Schneider, 2013), with the suggestion that the population as a whole has not attained the levels of international competitiveness found among comparable Asian BGs (Grosse, 2007). One view suggests that across the Latin American region the most common BG corporate form reflects a portfolio logic (Fracchia, Mesquita, & Quiroga, 2010; Grosse, 2007 Lefort, 2010). Grosse & Mesquita (2007:1) express a consensus

that "it seems that most observers do not see specific competitive strengths that will indeed enable firms from Latin America to beat out the competitors from abroad in their Latin American markets or elsewhere in the world". They argue that Latin American exports and outward foreign direct investments are small in relative terms. Only seven of the world's 50 largest MNEs from emerging markets originated in Latin America. On the whole Latin American firms are relatively small in size and face technological and innovation weaknesses.

The underlying logic here is that while many Latin American BGs have their origins in resource-based industries, they are driven by the commodity boom-bust cycle to diversifying in counter-cyclical industries. The leading features of Latin American BGs are that, like their Asian counterparts, they are family-owned and controlled, and highly diversified. However, the nature of their competitive advantages evolves toward a mostly domestic orientation. The consequence is a focus on 1) commodity resource-based industries, 2) industries that require local and often labour-intensive distribution systems, which can pose an obstacle for entry by foreign firms and 3) a focus on mostly non-tradable service industries such as retailing, telecommunications, television and entertainment, electricity, and construction (Grosse, 2007). Schneider (2013:49) agrees that Latin American BGs are 'exceedingly diversified' across multiple sectors such as finance, transportation, tourism, construction, commerce, and agri-industry and that because they are subject to the commodity boom-bust cycles, Latin American (LA) BGs pursue defensive diversification. An LA-BG trademark is that some parts of the group will be spared any given economic shock through careful portfolio diversification.

Hence, the core logic of diversification is based upon risk-minimization, essentially a financially driven strategy. Like the North American and European conglomerates and holding companies whose dominant corporate logic is financial LA-BGs do not develop strong

managerial and technological capabilities that are transferable from one business to another. While their economic logic provides some protection against commodity and other macroeconomic shocks, the underlying managerial structure of the groups is typically fragile. Consequently, LA-BGs tend to churn, with the regular rise and fall of particular groups. For example, some have collapsed and disappeared, but constituent businesses have been acquired by other groups (Grosse, 2007). Larrain & Urzúa, (2016) identify the same phenomena among Chilean BGs, where a slow churning of BGs occurs as new families acquire the assets of older groups. The financial portfolio structure of LA-BGs means that the assets of failed BGs can be acquired and bundled into new BGs under different ownership. As Schneider (2013:43) puts it “the names change but the corporate form lives on.” Grosse concludes: “It is a very safe bet to say that the “grupos” will remain as key players in Latin American business for at least the next decade. The “grupos” have developed a set of core competencies that enable them to survive the onslaught of foreign multinationals. These capabilities include superior knowledge of and ability to navigate local markets, which in turn have inefficiencies and imperfections that more open competition has not resolved. (Grosse 2007:41)

To summarize, Latin American BGs are very different from their internationally competitive Asian namesakes. For international political economy reasons, the substantial US presence has effectively denied Latin American states the autonomy needed to develop and implement a long-term industrial policy. A corollary of US influence there is a deep penetration of multinational enterprise in the region's economies, which have 'boxed out' domestic firms from high-technology manufacturing-based industries. Such BGs as there are often stem from a favorable natural resource endowment, so LS-BGs develop a domestically focused portfolio to

counter resource-based boom-bust cyclicalities, with a finance motivated risk diversification strategy.

Overall, our conclusion is that the Asian IPE experience resulted in the formation of BGs with a strong export orientation. The impact of IPE in Latin America, on the other hand, resulted in the formation of BGs with a preference for domestic diversification over exporting.

Specifically, the performance of BGs and their affiliates is dependent on the regional impact of IPE factors. In the next section, we explore empirically these expectations, asking whether geographic regional impact exports of BG affiliates differently in LA and Asia.

Data & Methods

The World Bank has surveyed over 120,000 firms in more than 130 emerging economies across Asia, Latin America, Eastern and Central Europe, and Africa between 2006 and 2016 (World Bank, 2011), and published the data as World Bank Enterprise Survey (WBES) (<http://data.worldbank.org/data-catalog/enterprise-surveys>). The data has three dimensions; firm, country and region through our research question focuses on the latter. Thus within the full sample, we identify in particular two regions: East Asia and Latin America through the dataset also contain firms from Eastern Europe and Africa. Our research interest is the comparison of the former two regions, and in one test we restrict our attention to this subset of the data. However, we also run regressions on the full dataset so that the relative performance and the impact of BGs in Asia and Latin America can be compared, not only with each other but with the other developing economies in the sample.

The WBES conducts surveys in six East Asian and six Latin American countries. Our Asian economies are China, Indonesia, Malaysia, Philippines, Thailand and Vietnam⁸. We do not include India because it was not directly engaged either in the US containment strategy or the subsequent export-led development policies which define the IPE of the region. Our Latin American economies are Argentina, Brazil, Chile, Columbia, Peru and Venezuela. We considered the inclusion of Mexico which was also the subject of the Monroe Doctrine, but decided that this was not appropriate because it has been a member of NAFTA since its formation in 1993; hence including the years of the survey. However, we re-estimated our models including Mexico in the Latin American region as a robustness test, and found that the results were not materially affected. The regressions are available from the authors on request. Table 1 lists the 39 countries and numbers of firms (frequency) in each region in the WBES database. After accounting for missing values and eliminating firms with fewer than ten employees, as well as foreign and state-owned firms, the maximum sample available is over 35,000 firms from all countries and 18,000 from Latin America and East Asia.

-Tables 1: about here-

Since our interest is international competitiveness, we focus on measures associated with the ability of the firm to export, long regarded as a key indicator of organisational performance (Carney et al, 2018; Bernard, Jensen, Redding & Schott, 2018), and a measure of early internationalization (Gaur, Kumar & Singh, 2014; Conconi, Sapir & Zanardi, 2016). Our

⁸ Stubbs, (2017) divides Asian states into three waves of economic miracles, with Japan followed closely by Hong Kong, Taiwan, South Korea and Singapore in the first wave. However, none of these are considered developing economies and therefore are not covered by the World Bank Enterprise Surveys. The second wave comprised of Malaysia and Thailand and the post-socialist economies, China, Vietnam as well Indonesia and the Philippines as possible miracle economies; these six states comprise our Asian sample.

measure of firm performance is therefore Export Intensity (EXPORT), defined in the WBES as the percentage of direct in total sales, a definition long used in the export literature (Estrin, Meyer, Wright & Foliano, 2008; He, Brouthers, & Filatotchev, 2013; Wang & Ma, 2018).

The WBES data also indicates whether a particular firm is embedded in a broader enterprise. WBES applies a standard definition of group affiliation across jurisdictions, which requires that firms identifying themselves as group members must be *legally* independent, an important feature of emerging market BGs (Castellacci, 2015). We identify firms that self-identify as being related to larger enterprise as group affiliated (*GAF*) and we code them as 1, and 0 otherwise. export intensity equation.

Our research question focuses on the impact of regional location on firm performance. To address this, we include up to two regional dummies, which take a value of unity for firms located in East Asia and Latin America respectively. In our regressions, we consider the direct effects of regional location (in particular, East Asia as against Latin America) and of BG affiliation (at the firm level) on the company's export performance. We also explore whether regional location effects moderate the relationship between BG affiliation and export performance by including an interaction term between the two independent variables.

We control for several other factors likely to influence firm performance. In order to control for political and social institutional differences across countries, we include the *Political Constraint Index* (POLCON), a measure of political and social stability developed by Witold Henisz (2000). This measure aims to assess a nation's underlying political and regulatory structures by measuring the likelihood of change in the policy regime; an indicator of political risk. The dataset includes more than 200 countries over a long period and covers both the capacity of veto power and the degree of alignment in policymaking among independent

branches of government (executive, legislative chambers, judiciary and sub-federal institutions). Its index varies from zero to one, with zero indicating the most hazardous condition (without any veto power) while one refers to the highest degree of political constraints. This dataset is widely used in political science and is increasingly recognized in IB and management studies related to political subjects (Fernandez-Mendez, Garcia-Canal, Guillen, 2018; Henisz and Delios, 2001; Holborn and Zellner, 2010; Perkins, 2014).

We employ two firm-level controls for company performance, entered in logs. Larger firms are likely to be more productive (Hall & Weiss, 1967), and are more likely to export (Chen, Sousa & He, 2016; Bernard et al, 2018) and we therefore control for *Firm Size*, measured by the logged number of permanent employees, in both equations. Following previous literature on exports, we also control for firm age as a broad index of firm capabilities (a positive effect) or as an indication of firm entrenchment (a negative effect), both of which are found in the literature (Bonaccorsi, 1992; Dhanaraj & Beamish, 2003; LiPuma et al., 2013; Love et al., 2016). *Firm Age* is measured by years of operation since the firm was established. Finally, we also include industry and time fixed effects. We report variable definitions and sources for all dependent and independent variables in Table 2.

-Table 2: about here-

We report descriptive statistics and correlation coefficients in Table 3. For our sample, the average firm employs around 110 workers and is 18 years old. Most firms focus on their domestic market (the share of exports averages 7.5% sales). On average, around 17% of our sample firms are group affiliated. The correlation coefficients between the independent variables are almost all small, mostly well below 0.1, with the exception of firm age and size which are correlated at a level around 0.3. Additionally, we perform VIF (variance inflation factor) test to

detect multicollinearity. The Mean VIF for all variables were at 1.03, therefore, much less than “rule of thumb” value at 10. Both suggest that multicollinearity is not a severe issue in our data.

-Tables 3 about here-

We estimate two equations. In the first, we use the full dataset to explore the differences between Asian and Latin American firms and BG in the context of all firms and BGs in all the other developing countries in our sample. The omitted regional category is the rest of the world (not East Asia or Latin America). Our estimating equation is:

$$\text{Export} = a_1 + a_2 \ln(\text{firm age}) + a_3 \ln(\text{firm size}) + a_4 (\text{POLCON}) + a_5(\text{GAF}) + a_6 \sum_{i=1..2} (\text{Region})_i + a_7 \text{GAF} * \sum_{i=1..2} (\text{Region})_i + \sum \text{industry dummies} + \sum \text{time dummies}. \quad (1)$$

In our second experiment, we restrict our attention to the sub-sample of firms and BGs in Asia and Latin America. We estimate the previous model, except the regions are restricted to Asia and Latin America. In this second specification, the only regional variable is for Latin America; in this restricted sample, firms in Asia are the omitted category. This specification allows us directly to compare only Asian and Latin American firms and BGs. The estimating equation becomes:

$$\text{Export} = b_1 + b_2 \ln(\text{firm age}) + b_3 \ln(\text{firm size}) + b_4 (\text{POLCON}) + b_5(\text{GAF}) + b_6 \text{LAI} + b_7 \text{GAF} * \text{LAI} + \sum \text{industry dummies} + \sum \text{time dummies}. \quad (2)$$

In each model, we estimate three specifications using OLS. In the first, we include the BG affiliation indicator, GAF; the POLCON index and the other control variables; for model 2 we add the relevant regional independent variable (Asia and LA, or just LA) and for model 3 we include the relevant interaction terms between the regional dummies and GAF. The test of group affiliation effect refers to the sign and significance of a_5 and b_5 , while the impact of regional effect depends on a_6 and b_6 . The moderating effects of the region on GAF performance relative to

standalone firms comes from the coefficients on a_7 and b_7 . The results are reported in Tables 4a and 4b respectively.

-Tables 4 about here-

Results & Discussion

We report our results in Tables 4a and b, models 1-3. In our full specification, we explain some 12% of the variation in the dependent variable. We note from model 1 in Table 4a that the independent variables are all statistically significant with the expected signs; hence exports are found to be higher in larger and younger firms, and in countries with higher levels of political and social stability (POLCON Index). Furthermore, we find that BG affiliation has a positive effect on firm internationalization across our entire sample of emerging market firms: GAF is found to be positive and significant in all models in Table 4a. Consistent with the IPE model, we find that the region in which the firm is located has an independent significant effect on export performance, even when we control for company and country-specific factors. In particular, we find that being located in East Asia leads to better export performance compared with all emerging market firms, while the converse holds for firms located in Latin America. This effect holds regardless of whether or not firms are affiliated with BGs. Finally, we consider in model 3 whether a firm's location in a geographic region influences the impact of BG affiliation on firm performance. This speaks to the issue of emblematic firms in particular regions; namely whether the effect of BG affiliation is sensitive to the geographic location of the firm. Interestingly, geographic location per se does significantly influence the export performance of firms in East Asia, and the sign of the (insignificant) coefficient is actually negative. Thus, we conclude that East Asia is host to higher export performing firms, that BG affiliation further improves export performance, but that geographic location does not significantly moderate this positive

relationship in East Asia (relative to other countries). However, we do identify a significant moderating effect of the regional location on the relationship between BG affiliation and export performance in Latin America, and the direction is negative. That is to say, being located in Latin America significantly reduces export performance, and this negative effect is even more marked for firms affiliated with BGs. Indeed, while the impact of BG affiliation is positive for the sample as a whole, with a coefficient of 2.417, the net effect of BGs in Latin America, taking account of the direct and moderated term, is negative ($2.417 - 4.658 = -2.241$). Thus being located in Latin America reduces the export performance of all firms, relative to all other developing countries except East Asia, and being affiliated to a BG reduces the performance even further.

In Table 4b, we explore the exact comparison between Latin America and East Asia more closely, using only the sub-sample of firms based in those two locations. As previously, in model 1 we find export performance is significantly influenced in expected ways by firm and country level controls. However, BG affiliation does not directly influence export performance in this subsample, presumably because as we observed in Table 4a, the positive effects of BG affiliation in East Asia are offset by the negative ones in Latin America. The coefficient on the Latin American dummy in models 2 and 3 is consistent with our core prediction; that firms located in the Latin American region will have lower export performance than firms located in East Asia, controlling for firm and country-specific factors.

We also find in model 3 that, unlike in East Asia, BG affiliation in Latin America does not act to further enhance export performance. BGs are not the emblematic firms for internationalization in Latin America. In fact, BG affiliation acts further to worsen the relative export performance of Latin American as against East Asian firms. Thus, the coefficient on the moderating effect is negative and significant and once again more than eliminates for firms

located in Latin America the positive direct impact of BG affiliation. The GAF dummy increases export intensity by 2.036 across the subsample but reduces it in Latin America ($2.036 - 4.127 = 2.091$).

How should we interpret these results? Comparing Asian and Latin American firms, we find that, in terms of exporting, Asian BG affiliates outperform independent Asian firms. Secondly, Asian firms outperform independent Latin American firms. Third, we find that Latin American independent firms outperformed Latin American BG affiliates. Indeed, Latin American BG affiliates have the worst export intensity of all BG affiliates from Asia, Eastern Europe, and Africa. The chasm between the performance of Asian and Latin American group affiliates is consistent with the IPE argument that firms in the two locations have developed on different principles. Specifically, firms in Asia display a greater export orientation than companies located in any other emerging economy, and furthermore Asian BG performance supports the view that they have been consciously designed by states in the region to develop capabilities supportive of early internationalization via exporting. On the other hand, the export performance of firms in Latin American is worse than displayed in any other emerging market context, and this performance is particularly marked for BGs.

We conclude that these results are consistent with an IPE conceptual framework in which the regional location of a firm, and BGs exerts an independent effect on export performance, positively in East Asia and negatively in Latin America. We suggest that this outcome is linked to the different IPEs in the two regions and in particular the different security structures which developed each: the East Asian case after 1945 and over a much longer period in Latin America. We suggest that these IPEs have had a profound impact on the emblematic BG firms and the capacity of internationalization in each region. Our results support the idea that BGs have been

particularly effective tools for the development states of Asia which have sought to integrate into global markets. On the other hand, BGs play an entirely different function in Latin America. Rather than being the vehicle for innovation, capability and skill enhancement, development of capital accumulation and managerial talent and therefore the accumulation of competitive advantage underlying internationalization, as in Asia, BGs in Latin America have instead acted in the logic of a financial portfolio structure. They have therefore primarily been developed to hold assets, but individual affiliates are more likely to be domestically focused, seemingly confirming Grosse's (2007) pessimistic estimation of their competitiveness. Moreover, our more general results that compare BG affiliates across the world suggest that Latin American BGs are unique. We find that BG affiliation across the world is associated with higher exporting, except in Latin America.

Our IPE perspective on regional differences in BGs affiliates export performance contributes to understanding their geopolitical origins, their heterogeneous character, and their different capacities for international competitiveness. The understanding of the origins of BG heterogeneity has implications for the influential missing institutions' view that predicts the functional disintegration of BG's under conditions of institutional development. However, BGs appears to remain prevalent in many developed economies (Colpan & Hikino, 2018; Carney et al., 2018). Whether BGs disintegrate or remain competitive may be a product of their political economy origins. BGs that have formed under initial protection followed by a gradually increasing competitive selective environment (Guillen, 2000), in both domestic and international markets can better develop the capabilities to adapt to a wide range of institutional settings. In our work, we call attention to BGs IPE structural origins as well as their persistence.

Our analysis of the IPE basis for regional effects in East Asia and Latin America has concentrated on the security framework in each region. However, there are other possible explanations for these differences. For example, Mudambi (2018) argues that the different preferences of national elites (the dominant political class and wealthy business families) explain the different sources of national wealth in each region. He proposes that the wealth of Latin American business elites stemmed from land ownership and primary sector exporting activities in agriculture, ranching, forestry, and minerals. Mudambi therefore argues that Latin American elites have sought to generate wealth through extractive policies based on rent-seeking and with import substitution based on monopoly rights and tariff protection. These elites have little reason to pursue innovation through production and knowledge strategies, choosing instead to rely on the import of high quality technologically essential products from advanced countries (Meyer, Mudambi, & Narula, 2011; Schneider 2013). In marked contrast, natural resource scarcity in East Asia provides little basis for international trade and rent generation through the export of primary goods. According to Mudambi, Asian factor endowments encouraged these states to enter into the secondary manufacturing and tertiary sectors.

We do not claim that factor endowments are unimportant in shaping national competitiveness, and in particular that the “resource curse” may lead to perverse national outcomes (Shapiro, Hobdari & Oh, 2018). However, the evidence suggests that the negative impacts of resource dependence are not necessarily generalizable across national contexts (Venables, 2016), so that outcomes may differ by country within a region or across regions. In particular, a joint study by the International Bank for Reconstruction and Development and The World Bank concluded that compared to other developing regions, Latin America and the Caribbean (LAC) on average been less affected by the natural resource curse, and suggested that

the relevant question is “Why is LAC an anomaly to the political curse of natural resources?” (Sinnott, Nash & de la Torre, 2010: 35).

We therefore argue that the determinants of elite behaviour require considerations in addition to the nature of factor endowments. Thus, one limitation of Mudambi’s analysis is that it fails to take into account the interdependence between states, and the extent to which elite preferences are shaped by their country’s position in the broader IPE; the factors at the heart of our analysis.

Conclusion

The process whereby firms evolve their international market engagement may operate differently in emerging economies from developed economies, and in the former, there may also be considerable heterogeneity of experiences. Thus, while the literature has compared the internationalization processes of MNEs from developed and emerging markets, the differences between different emerging markets may also be very marked. We have therefore in this paper extended process theories of internationalization by considering the structural conditions for successful internationalization performance by emerging market firms, and in particular BGs.

Our main contribution has been to introduce to the international strategy literature the potential importance of regional *geography* in explaining firm-level outcomes, and in understanding the mechanisms by which emblematic organisational forms, such as BGs, emerge and influence performance of their affiliates. By geography, we do not refer to issues of natural features or resources, transportation, or national location. Instead, we focus on the notion that, for firms in some countries, what is relevant for their behaviour is that they belong to a particular *geographic* configuration, which is a group of countries defined by their location. Of course, groups of countries may be defined by other characteristics, such as their institutional system.

Economic and institutional systems have been considered extensively in the literature (Fainschmidt, Judge, Aguilera & Smith, 2016; Carney, Estrin, Liang, & Shapiro, 2019) but until now, the role of regional factors have been largely ignored.

In order to identify the potential role of geographic location for firm performance, we have drawn on theories of international political economy. The IPE perspective offers a geopolitical understanding that a set of geographically contiguous countries can develop and evolve similar institutional features that can go on to determine the nature of corporate strategies and structures in that particular regional location. We focus in this paper on one principal determinant of regional similarity: the security framework. We concentrate our attention on two specific regions, Asia and Latin America, and identify how the security arrangements in each, which have been organised on regional lines, have influenced the national organization of production, finance and global knowledge flows, as well as the strategies of domestic BGs.

In Asia, we have identified the critical role of the US security umbrella as a key element of the policy to contain communism after the Second World War. This policy included knowledge transfers, the relocation of manufacturing production to Asia, an autonomous finance and credit regime as well as access to US markets, all of which enabled East Asian states to pursue an export-oriented development policy. The emblematic firm to create international competitiveness through firm knowledge building, skill development, and the acquisition of technological capabilities were BGs. In contrast, the security arrangements for Latin America stemmed from the Monroe Doctrine, and led to a domestic orientation with firms largely denied access to US markets while faced with competition within domestic markets from primarily US MNEs. This framework gave little incentive to transfer know-how to local firms, and left little role for BGs as agents for state-sponsored export-led development. Consequently, BGs in Latin

America often grew out of natural resource sectors, and tended to follow a portfolio approach designed to mitigate macroeconomic instability and the commodity cycle risk. They did not play the role of leading the process of internationalization through exporting and innovation.

Our approach is based on the idea that regional location is potentially important for firm performance but also highlights that this is not necessarily the case; it is important to have a theoretical understanding of what are the mechanisms linking geographic region and enterprise strategy. We have proposed that IPE represents a suitable methodology to analyse this mechanism. It is therefore perfectly feasible that particular regions are too diverse and heterogeneous in terms of a security framework to coherently influence firm performance; this is an important question for future research. Thus, researchers may wish to develop these ideas to explore whether there are theoretical factors leading to regional effects in other parts of the world; obvious candidates might include the European Union, Central and Eastern Europe, and sub-Saharan Africa.

However, the analysis may extend beyond security arrangements. Decades of globalization have been characterized by the establishment of a rules-based order governing bilateral and multilateral investment and trade relationships between states, and these constrain national elites' ability to realize their preferences because they must pay due regard to their structural position in the world order. For this reason, we propose that the proper perspective to consider elite preferences is from an IPE perspective. Accordingly, we suggest that our IPE framework is an insightful and timely perspective from which to view international relations between countries and their impact on firm internationalization.

Table 1: World Bank Enterprise Survey Sample Countries

East Asia		Eastern Europe		Africa		Latin America	
Country	Freq.	Country	Freq.	Country	Freq.	Country	Freq.
China	2,700	Czech Republic	504	Morocco	407	Chile	2,050
Indonesia	2,764	Estonia	546	Nigeria	4,567	Argentina	2,117
Malaysia	1,000	Hungary	601	Tunisia	592	Venezuela	820
Philippines	2,661	Latvia	607	Angola	785	Peru	1,632
Thailand	1,000	Lithuania	546	Cameroon	363	Brazil	1,802
Vietnam	2,049	Poland	997	DR Congo	1,228	Colombia	1,942
		Slovak	543	Egypt	2,897		
		Slovenia	546	Ethiopia	1,492		
		Bulgaria	1,596	Ghana	1,214		
		Georgia	733	Kenya	1,438		
		Romania	1,081	Rwanda	453		
		Ukraine	1,853	Senegal	1,107		
		Belarus	633	Sudan	662		
		Russia	5,224	Botswana	610		
		Azerbaijan	770	Tanzania	1,232		
				Uganda	1,325		
				Namibia	909		
				South Africa	937		
Total	12,174	Total	16,780	Total	22,218	Total	10,363

Table 2: Definitions and Sources of Variables

Variable	Definition	Source
Export (% of total sales)	Sales exported directly as percentage of total	WBES
Firm Age	Year firm began operation to year of survey	WBES
Firm Size (Log)	Log of number of permanent workers	WBES
GAF	Dummy indicating whether firms being part of	WBES
POLCON	Political Constraint Index	POLCON

Table 3: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max				
Firm Age	17.72	14.91	0	210	1.0000			
Firm Size	3.343768	1.414832	0	10.539	0.2718*	1.0000		
GAF	0.177	0.382	0	1	0.1000*	0.2195*	1.0000	
POLCON	0.339	0.217	0	0.708	0.0969*	-0.011*	0.0099	1.0000

Table 4a: Export Equation for WBES Sample

Variable	Export Intensity as Dependent Variable		
	Model 1	Model 2	Model 3
Firm Age	-0.475** (0.169)	-0.365* (0.170)	-0.352* (0.170)
Firm Size (Log)	5.770** (0.108)	5.729** (0.108)	5.743** (0.108)
POLCON Index	1.377 (0.795)	3.386** (0.835)	3.488** (0.835)
GAF Dummy	1.458** (0.340)	1.502** (0.340)	2.417** (0.404)
East Asia		3.958** (0.578)	4.051** (0.588)
Latin America		-3.167** (0.606)	-2.482** (0.619)
GAF* East Asia			-0.622 (0.991)
GAF* Latin America			-4.658** (0.865)
Constant	-8.398** (1.490)	-12.886** (1.601)	-13.477** (1.607)
R2_A	0.123	0.125	0.126
F	177.707	169.672	160.101
N	35417	35417	35417

Table 4b: Export Equation for Asian and Latin America sub-Sample

Variable	Export Intensity as Dependent Variable		
	Model 1	Model 2	Model 3
Firm Age	-2.127** (0.242)	-1.778** (0.241)	-1.759** (0.241)
Firm Size (Log)	5.532** (0.131)	5.531** (0.130)	5.523** (0.130)
POLCON Index	-3.116* (1.315)	-2.750* (1.308)	-2.673* (1.308)
GAF Dummy	0.246 (0.498)	0.346 (0.495)	2.036** (0.635)
Latin America		-11.319** (0.798)	-10.792** (0.807)
GAF* Latin America			-4.127** (0.971)
Constant	-9.991** (1.535)	-11.515** (1.530)	-11.697** (1.530)
R2_A	0.128	0.137	0.138
F	119.136	123.794	119.675
N	18503	18503	18503

Note: Figures in parentheses are standard errors. *** denoted statistical significance at the 99.9% level; ** denoted statistical significance at the 99% level; * denoted statistical significance at the 95% level.

General Discussion

Contribution

This thesis integrated three essays that address the current BG prevalence in emerging and developing countries, where institutions are mostly underdeveloped in economic and legal aspects. Given the abundance of BG research in the literature, the overarching goal of this thesis is to enrich our understanding of BG progress in the background of evolving institutions by considering alternative theoretical perspective and empirical setting. At the forefront, we propose the current dichotomy diagram of “paragon or parasite” is too coarse and may require more nuanced interpreting a vibrant scene of BG emergence and persistence. Therefore, we partially depart from mainstream missing institutions perspective, which argues BG’s emergence is to replace the dysfunction institutions by cultivating internal market. This perspective highlights external influence of institutions but unable to explain the origin and source of BG superior capability and international competitiveness.

Subsequently, we accommodate this thesis into three separate but well-connect essays, which allow us to focus on one subject in each piece. First, we try to resolve the fundamental question of why BG emerge and thrive in the embedded developing institutions by recognizing capability building of management practices within the hierarchy structure. We then extend to investigate why BGs are front runners in promoting international competitiveness with the lens of nonmarket capabilities. Finally, we bring in the geopolitical perspective to distinguish BGs export intensity in two regions, Asia and Latin America, by identifying their fundamental difference in security, product, knowledge, finance structures.

In the first essay, we contribute to understandings of BGs evident persistence in the context of improving institutional quality. We build upon recent conceptual advances in the

missing institutions perspective, suggesting that with the progression of technological opportunities, BGs may evolve to address emergent institutional voids, a phenomenon that may be prevalent in jurisdictions at different levels of institutional maturity. With our multi-country study of jurisdictions at various levels of institutional development, we suggest BGs advantage based on a capacity to create firm-specific (Teece, 1986) and non-tradable assets (Dierickx & Cool, 1989), such as credibility and reputation (Gao et al, 2017) with a comparative study of group affiliated and independent firms showing that credibility enhancing management practices that signal reputation that is prized in both types of firm. However, we uncover fine-grained differences between the two in jurisdictions with different levels of institutional maturity. Specifically, that developments in factor markets enabling better quality transaction facilitation provide advantages to independent firms, but group affiliates continue to maintain advantages for aggregating and distributing and credibility.

The second essay enriches our understanding of how BG translates internal advantages to superior international competitiveness. We capture a performance advantage of BG affiliates in international markets, which we suggest arises from the nonmarket capabilities of BGs. This approach complements current literature that focused primarily on market-enhancing capabilities associated with tangible assets like capital and labor (Khanna & Yafeh, 2007). Rather than stand on one side of the dichotomy paradigm, we identify nonmarket capability's influence on enhancing firm performance, as well as draw limitation on depressing market innovation. By considering the moderation role of institutions, we add evidence to the missing institutions literature that the value of nonmarket capability would be constrained by the growth of institutions, in particular those regarding political stability and social welfare. Thus, we propose that nonmarket capabilities may represent a potent source of competitive advantages of BGs in

emerging markets, but which might also have a negative impact on market competition if BGs become collectively too powerful. Nevertheless, these two effects are strongly context-sensitive, mainly depends on the quality of social and political support in a jurisdiction.

The third essay takes an exploratory approach to breakdown the general findings from the previous two essays. The motive behind this approach is to further scrutinize the geographical effects on our evidence from a large cross-country dataset. By applying IPE perspective, we compare two prominent regions of BG presence and their linkage with specific structural conditions that may shape the internationalization process. We suggest that four pillars of IPE structures in two regions and in particular the security structures develop the remarkable variance between them. In Asia, we have identified the critical role of the US security umbrella as a key element of the policy to contain communism after the Second World War. In contrast, the security arrangements for Latin America stemmed from the Monroe Doctrine and led to a domestic orientation with firms largely denied access to US markets while faced with competition within domestic markets from primarily US MNEs. Asian BGs as an emblematic firm to create international competitiveness through firm knowledge building, skill development, and the acquisition of technological capabilities from US aid. While BGs in Latin America often grew out of natural resource sectors and follow a portfolio approach designed to mitigate macroeconomic instability and the commodity cycle risk. They did not play the role of leading the process of internationalization through exporting and innovation. The four IPE structures support the idea that Asian BGs have been particularly effective tools for the development states and promote firms to integrate into global markets, a story did not occur among their Latin American counterparts.

Besides our theoretical contributions, we do provide empirical findings that are missing in the BG literature, which mostly test sample on single country without parallel comparison. By using multi-country data from World Bank Enterprise Survey, we are able to test concepts and hypotheses developed in the context of economies with stronger institutions and higher levels of income per capita can be extended to cover emerging markets in which there is much greater heterogeneity of institutional norms and practices. The use of data with a richer specification of the firm resources and capabilities enhances the reliability of our analysis, especially its valuable attempts to measure capability in the forms of various bundles of management practice. Taking advantage of fine-grained measure and comprehensive coverage from WBES, to our knowledge we conduct the largest scale of empirical study in the field BG research.

Overall, this thesis complements the dichotomy paradigm of BG research, which focuses on performance debate between BG affiliates and non-affiliates. We take on steps to integrate multiple perspectives on resolve the long-discussed dilemma of BG survival and persistence. The combination of three essays is structured to present an alternative interpretation of BG longevity in the era of globalization. From capability building to international competitiveness, we acknowledge the internal market theme is not comprehensive to explain the superior efficiency of BG affiliates. In contrast, BGs are more versatile to adopt the changing institutions by developing market and nonmarket capabilities. Therefore, we conclude that the mixture of market and nonmarket components fuel BG to achieve domestic success and then further develop international competitiveness for global opportunities.

Implication

Our perspective on BGs has considerable significance in the direction of future research. First, there's abundant potential to continue our study of BGs and their impact in a large sample of

countries, which already offers fresh insights into the behavior and impact of these ubiquitous emerging market business institutions. Although we find evidence that BG affiliates with accompanied better management practice and enhanced export performance, we also noticed that these positive performance effects may come from internalized nonmarket capabilities that we are unable to test. Hence, a deeper analysis is needed to understand the factors that lead BGs to select particular affiliates from among the potential candidate firms, and the incremental benefits, probably of a nonmarket sort, that this selection and the group's resources go on to provide. This is ultimately a dynamic story that needs to be understood better to explain the somewhat counterintuitive positive role of BGs in the development.

Second, the role of institutional context is also clearly of fundamental importance. Both the market capability and export effects are sensitive to the character, quality and evolution of the institutional environment. Thus, we have distinguished between two sorts of institutional drivers. The first is market-supporting institutions, which we argue might affect the relative benefits and costs of BG affiliation. The second represents a different conceptualization of institutions, which takes into account the political and social context. The former we view as being primarily relevant in explaining the dynamics of BG evolution; the latter in understanding the overlap between BGs economic and political power. We propose that these sorts of institutions that constitute substantial influence towards BGs within a specific country and its persistence. Our empirical work provides support for such distinctions and points future research in the direction of much more careful specification and explanation of business relationships that are conditional on institutional factors.

Third, our regional comparison presents novel insights that even marked from general findings of a large sample of countries. The comparative approach based on the idea that regional

location is potentially important for firm performance, in which we consider offering a complementary interpretation of prominent missing institutions perspective. By doing so, we are able to broaden our theoretical understanding of what are the mechanisms linking geographic region and enterprise strategy. Although we have proposed that IPE represents a suitable methodology to analyze this mechanism in Asia and Latin America. Extend from our findings, it is quite feasible that particular regions are too diverse and heterogeneous in terms of a security framework to coherently influence firm performance; this is an important question for future research. Thus, researchers may wish to develop these ideas to explore whether there are theoretical factors leading to regional effects in other parts of the world; obvious candidates might include the European Union, Central and Eastern Europe, and sub-Saharan Africa.

Lastly, for policymakers and practitioners, our research outcome offers timely advice to ongoing international expansion from Emerging Markets BGs. For example, Chinese state-owned enterprises adopting the form of BG have played a significant role under the flag of “Belt and Road Initiatives” promoting national and economic interest in Africa, Central Europe, Central and Southeast Asia. Their increasing international competitiveness and home countries’ subsidiaries enable them to amplify the market and nonmarket advantages, especially presence in many countries with underdeveloped institutional conditions. Although their international footprint has just started, the pace seems fast and unstoppable, regardless of the obstacle of imperfect market or political institutions. According to our findings, government agencies in the host countries should keep their regulation updated with the growing market share from these emerging giants. On the other hand, traditional MNEs from developed countries need to pay particular attention to the competition from BGs, who already mastered the advanced management practices from the West but also versatile with their nonmarket strategies. Our

research showcases that BGs are catching up with the Western world, where struggles and uncertainties are all over the place, e.g.: Brexit, Separatism, and protectionism. We believe BGs from the developing world are seizing these opportunities without any hesitation, policymaker and managers have to adjust their preference in dealing with these sizable and powerful ones.

Limitation

Despite the benefit of using a mass multi-country dataset, we acknowledge the limitation of its cross-sectional nature. The cross-sectional data is a second-best method to test our accumulative advantage logic, and ideally should be tested with longitudinal-panel data. There are obvious costs and difficulties in assembling cross-country longitudinal dataset we encourage future researchers to assemble such data to test temporal theories of BG performance and their persistence. Future work might wish to address this limitation by exploiting more systematically the panel element of the WBES, or by developing new cross-country panel datasets in which the evolution of the relationship between BG affiliation, business context, and firm performance can be identified directly.

Additionally, we recognize that our measures are only indicative of the potential for accumulating and combining more advanced management practice in ever more productive ways. For the same reasons, we cannot claim unambiguous causality from our results. Those superior capabilities may have been developed within the BGs, and only longitudinal data can resolve the question. The data do not allow us to directly measure nonmarket capabilities, and we infer their existence as a “residual” effect. Future research would benefit from developing direct measures of nonmarket capabilities.

Nevertheless, we place quite a strong assumption that countries follow a similar dynamic path in the evolution of institutions so that one can infer dynamic effects from cross-country

data. We are inferring dynamic relationships such as the impact of market-supporting institutions follow a positive trajectory as predicted, but turmoil situations in some countries cause setbacks in economic and social wellbeing, such as Venezuela, Iran, Syria. Our multi-country study may shed less lights on one particular country that needs extra effort as we only observe variation in institutional quality across countries, rather than from variation within a country over time. Our regional comparison would compensate to some degree of this problem, but a nested longitudinal country-region research design would be ideal to see the difference across and within-country over time. Therefore, we are calling for upcoming research to address our limitations and extend our investigation on BG persistence, with the finer-grained data source and appropriate methods.

Conclusion

The central idea of this thesis is to understand BGs' emergence and resilience in the improving institutional environment. A longstanding argument that BG's formation was responding to the missing institutions in many developing nations, which fell short on accommodating efficiency and justice jurisdiction support. Yet in this thesis we shed light from alternative perspectives: BGs are in better positions to select or acquire affiliates with the enhanced market and nonmarket capabilities, which make them outran the race of competitive advantage against their nonaffiliates counterparts. While the capability building mechanism tends to be dynamic and interacted with surrounding institutions, we find particular sets of management practices reflect the substance of BG's long-lasting strength. We seek a multi-perspective understanding of long unresolved questions about BGs and get fresh insights on their source of superior capability and uneven performance outcome across regions. The missing institution's theme predominates the conversation among the field, so far, we have swung the pendulum a little back to the corporate side of the story, which we deem a more balanced approach. We believe this subject is so rich in

content that warrants multidisciplinary approach, as we are just pushing a small step further. There are still lots to discover BGs with lots of ways, as they seem to live longer than we originally thought, perhaps much longer.

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