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Three essays on institutional voids and firms' strategy in emerging markets

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ABSTRACT

Emerging economies do not only present growth prospects to entrant firms but also significant operational challenges. Some of these operational difficulties emanate from the institutional environment in the emerging economies. The institutional environment plays an important role in establishing and sustaining market transactions. Inefficiencies in the institutional environment create *institutional voids* which shape entrant firms' strategic decisions and actions. Yet, the current state of knowledge about how the institutional environment affects firms' strategic actions in emerging economies is equivocal. This thesis sheds light on this gap by answering the question of how do institutional voids influence firms' strategic actions in emerging economies. The contribution of this thesis is organized into three research articles.

The first article is aimed at understanding the influence of institutional voids on firms' resources commitment in emerging countries. Specifically, the study analyses the relationship between institutional voids and firms' resources commitment in emerging country using data on Italian firms operating in China. The study reveals that the relationship between institutional voids and firms' resource commitment is more complex than the linear relations proposed in the extant literature. The study finds support for an inverted U-shaped relationship between institutional voids and firms' resource commitment.

The second paper focuses on analyzing business model adaptation to institutional voids in developing countries. The paper employs a qualitative research design to address the question of which *process* does a newly established developing country-based firm go through to adapt a business model designed for developed countries to institutional voids in its local market and which components of the business model are modified during the adaptation process. Based on a case study of Jumia - an online retailing company in Africa established with the aim to mimic the

success of Amazon.com across the African continent, we show that newly established developing country-based firms attempting to exploit in their local context the success of an established business model designed for developed economies, cannot simply replicate that model, but must adapt it with the aim of filling various institutional voids of their home country. We find that the business model adaptation to institutional voids in a developing country involves four phases consisting of *clarification phase*, *legitimacy phase*, *localization phase* and *consolidation phase*. Throughout these phases, specific institutional voids are filled, and significant adjustments are made to various components of a firm's business model.

The third paper reviews current state of institutional voids – resource commitment literature and maps future research directions. To this end, the study systematically analyzes relevant journal articles for their key findings, theoretical frameworks, contextual dimensions and methodological approaches. Based on this review, significant gaps in the literature were identified and a research agenda is developed to guide future scholarship in this important domain of research.

Keywords: Institutional voids, firms' strategy, resource commitment, business model adaptation, emerging markets

DEDICATION

To my uncle Mr. Maxwell Oti Yeboah of Oti Yeboah Complex Ltd, Sunyani (Ghana) for his immense contribution in my life.

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FIRMS BASED IN DEVELOPED COUNTRIES ENTERING EMERGING MARKETS: THE INFLUENCE OF INSTITUTIONAL VOIDS ON FIRMS' RESOURCE COMMITMENT**

Abstract

The international management literature has presented inconclusive results about the effect of institutional voids in a host country on entrant firms' resource commitment. With the lens of institutional theory and transaction-cost theory, this paper examines how institutional voids in an emerging market influence the decision of firms based in developed countries to move resources in that market. Resource commitment in an emerging market is examined in terms of: (1) the degree of control of the entry strategy employed and (2) the number of business functions carried out directly in the emerging market. By relying on a sample of 90 Italian firms operating in China between 2001 and 2010, results of this study show that the institutional voids-resource commitment relationship is inverted U-shaped.

Keywords: institutional voids; resource commitment; entry strategies; location choices; emerging economies.

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1. Introduction

> *'Companies cannot operate in emerging markets without encountering institutional voids, but once they identify the voids that will shape the environment for their businesses, they can find ways to overcome them'* (Khanna and Palepu, 2010: 40).
>
> *'As entry mode decision is associated with risk-taking propensity and resource commitment, an MNE should structure it in such a way as to help accomplish its strategic goals without taking excessive risks'* (Luo, 2001: 460).

Key strategic decisions concerning a firm's *resource commitment* in a foreign market, i.e. the extent to which a firm controls dedicated assets – physical, intellectual or human – in the host country that cannot be redeployed to another country without costs (Anderson and Gatignon, 1986; Hill, Hwang, and Kim, 1990; Petersen and Pedersen, 1999), are known to be driven by various factors, including reduction in investment risks, economies of scale, knowledge acquisition, location advantages (Chen and Hu 2002; Cuervo-Cazurra, de Holan, and Sanz, 2014; Erramilli, 1992), transaction costs reduction (Anderson and Gatignon, 1986; Elia *et al*., 2014; Hill, Hwang, and Kim, 1990; Lo, 2015; Stevens and Makarious, 2015) as well as the ultimate goal of opening up new revenue streams (Hitt *et al*., 2006). Within this literature, some authors have focused on the role of *institutions* in the host country as a factor that may considerably influence entrant firms' decisions about the amount of resources to move abroad (Peng, 2003; Wright, *et al*., 2005). Institutions are 'intermediaries […] that insert themselves between a potential buyer and seller to bring these actors together and reduce transaction costs' (Khanna and Palepu, 2010: 54).[1] Institutions play a central role in the market economy; they serve as the main pillars on which market mechanisms are supported (North, 1990). If institutions are weak or absent in the market, then *institutional voids* are said to exist (Khanna and Palepu, 1997, 2010).

[1] Examples of market institutions are banks, who allow firms to access to financial resources and loans; market research firms, who offer firms information on competitors, suppliers and customers; courts and arbitrators, who allow firms to resolve disputes regarding law and private contracts.

Khanna, Palepu and Sinha (2005) explain that institutional voids are particularly evident in emerging economies, where the lack of market supporting institutions is likely to increase *transaction costs* for entrant firms and severely constrain their ability to exploit the benefits of moving resources in these markets. In fact, various empirical studies taking a transaction-cost perspective have shown that underdeveloped institutions in emerging economies may negatively influence a firm's decision to commit resources to operate in such economies (e.g., Henisz and Macher, 2004; Meyer *et al*., 2009; Yiu and Makino, 2002).

In this paper, we take the perspectives of developed country-based firms entering an emerging market to analyze how institutional voids in that emerging market influence the resource commitment of entrant firms. A firm's resource commitment in a foreign country is examined from two different angles: (1) the *entry mode degree of control in the host country*, i.e. the extent to which a firm exercises control over its operations when entering a foreign country, which is intellectually rooted in the entry mode literature (Anderson and Gatignon, 1986; Hill *et al*., 1990; Isobe, Makino, and Montgomery, 2000; Woodcock, Beamish, and Makino, 1994), and (2) the *number of business functions in the host country* (i.e., R&D lab, production or assembly plant, sales force, retail stores, and administrative activities) carried out directly by the entrant firm, which is intellectually rooted in the literature of location choices (Alcacer, 2006; Beugelsdijk and Mudambi, 2013; Buckley and Casson 1976; Lo, 2015; Mesquita 2016; Rugman *et al*., 2011). Interestingly, entry mode degree of control and the number of business functions located in the host country represent different strategies, with different goals. The former is aimed at finding the optimal trade-off between (a) investment risk due to 'environmental uncertainty', i.e. referring to the inability of a firm to predict future events, often resulting from the volatility of environmental conditions in a host country, and (b) control over operations in the host country to limit 'behavioral uncertainty', arising from the firm's inability to predict its partners' opportunistic

behavior (Anderson and Gatignon, 1986; Brouthers and Nakos, 2004). The latter is aimed at finding the optimal trade-off between (a) 'managerial complexity', arising from the firm difficulties in managing several business functions and (b) 'the possibility of being directly involved in the various business functions in the host country' to better assess local customers and suppliers (Chung and Alcácer, 2002; Ghemawat, 2001; Park & Ungson, 2001; Zaheer and Nachum, 2011). In fact, a high (low) entry mode degree of control is not necessarily associated with a high (low) number of business functions directly carried out by the firm in the host country, and vice versa.

With the lens of institutional theory and transaction-cost economics in international business (Brouthers and Brouthers, 2003; Gatignon and Anderson, 1988; Yiu and Makino, 2002), we attempt to address a number of gaps within the entry mode and location choice literatures. First, existing studies on the institutional voids-entry mode degree of control relationship report mixed results. Some authors (e.g., Chang *et al*., 2012) have theorized and found empirical support for a positive relationship between the level of institutional voids in the host country and the entrant firm's entry mode degree of control. Other studies have shown that in the presence of institutional voids firms prefer entry modes with low degree of control (e.g., Álvarez and Marín 2010; Brouthers and Brouthers, 2003; Meyer *et al*., 2009; Yiu and Makino, 2002). Finally, other empirical studies found the relationship not to be significant (Ang and Michailova, 2008). In this paper, we propose a model aimed at finding an explanation for the contrasting theoretical arguments and results offered by the extant literature.

Second, while the merging of theories of internationalization and location choices is of significant interest to scholars and executives of multinational firms (Beugelsdijk and Mudambi, 2013; Mesquita, 2016), the question about how the institutional environment impacts on the firm's decision to locate its business functions in the host country has marginally received

researchers' attention. Despite a few exceptions (e.g., Elia *et al.*, 2014), the very few studies that have tackled this issue have focused on the extent to which a specific institutional void in a host country affects entrant firms' propensity to move resources related to only a specific business functions into that country, e.g. the lack of intellectual property protection in a country and entrant firms investment in R&D in that country (Kumar, 1996, 2001; Sanyal, 2004). Still, the few studies that use location of business functions in a foreign country as a proxy of resource commitment also offer mixed results. The shortage of empirical studies on this relationship is surprising since the decision about how many business functions to move in the host country is a critical and non-trivial issue for many firms (Alcacer, 2006), especially in the presence of underdeveloped institutions (Khanna and Palepu, 2010). The question we try to answer is thus: how do institutional voids affect a firm's decision about how many business functions to move in the host country?

Third, while most studies on the effect of institutional voids on entrant firms' resource commitment have developed arguments on how institutional voids differ among host countries and how entrant firms in different countries cope with these voids (Hoskisson *et al*., 2000; Khanna and Palepu, 1997), there is a lack of empirical studies examining how developed country-based firms entering an emerging market experience the influence of institutional voids differently, and how these voids influence the decisions about resource commitment. We believe this approach to be particularly important because, 'different [firms] are not uniform in the ways in which they rely on market institutions, [meaning that] some [firms] are more institution-intensive than others' (Khanna and Palepu, 2010: 28). In turn, the choice of the firm to enter an emerging country may be conditioned by the extent to which institutional voids are embedded in its business environment.

Fourth, from an empirical perspective, another gap in the extant literature lies in the operationalization of the institutional voids construct. Previous empirical research has measured the strength of market-supporting institutions by combining various indicators related to a country's economic freedom and institutional development, collected from secondary sources (e.g., Meyer *et al*., 2009), like the World Bank, International Monetary Fund, and Heritage Foundation. Still, these indicators offer an aggregate level of institutional development of a country, and do not necessarily reflect the extent to which the management of an entrant firm *perceives* its business in the emerging market to be affected by voids in the institutional environment (Orr and Scott, 2008). In fact 'such ratings usually fail to account for the fact that the levels of policy risk vary among different investors in a country, some of whom may adapt their business practices to local norms and lobby key policy makers better than others do' (Henisz and Zelner, 2010: 93). The need to fully explicate the influence of individual actions and perceptions about the environment on firm strategy has been recently remarked also by authors in the micro foundations of strategy literature (Felin and Foss, 2005: 441): 'Organizations are made up of individuals, and there is no organization without individuals. There is nothing quite as elementary; yet this elementary truth seems to have been lost in the increasing focus on structure, routines, capabilities, culture, institutions and various other collective conceptualizations in much of recent strategic organization research'. In this paper, by means of questionnaires, we develop a subjective measure of institutional voids based on CEOs' perception about the degree to which weak market-supporting institutions in the host country have hampered the firm entry process.

2. Theory background and hypotheses

2.1. A review of empirical studies on the relationship between institutional voids in the host countries and entrant firms' resource commitment

Various authors have shown that the decision about how much and which resources to move to a host country with underdeveloped institutions is not a trivial issue for entrant firms, because this decision has profound potential consequences on their performance in that country (e.g., Brouthers and Nakos, 2004). Our review of prior empirical studies examining the relationship between institutional voids in the host country and entrant firms' resource commitment is presented in Table 1, which gives a detailed description of variables employed in analyzing the relationship and the theoretical backgrounds used to derive hypotheses, as well as key findings. As can be observed, results have been decidedly mixed. The reason for these mixed results, as we will discuss in the following sub-sections, is that the relationship is more complex than has been theoretically developed and empirically validated.

Please insert Table 1 around here

2.2. Institutional voids in emerging markets and developed country-based firms' entry mode degree of control

Firms operating in foreign markets encounter different institutional environments which present diverse challenges to them than in their home markets. In the case of developed country-based firms operating in their home country or other developed countries, they rely on well established market supporting institutions such as specialized market intermediaries, regulatory systems and contract-enforcing mechanisms (Khanna *et al*., 2005) to function. However, the story is very different when developed country-based firms decide to enter into emerging markets. Unlike in developed countries, emerging markets lack some of these market supporting institutions, thus forcing foreign entrants to cope with institutional voids (Khanna and Palepu, 2010).

As noted by Khanna and Palepu (2010), firms operating in a given country are not uniform in the way they experience a country's market supporting institutions. For example, a firm may find

a lack of specialized intermediaries in the product market, whereas it may experience an abundance of specialized intermediaries in the labor and capital markets. Another firm operating in the same country may instead encounter unreliable intermediaries in the labor and capital markets but highly efficient intermediaries in the product market. These differences in the way firms entering the same country experience institutional voids can be due, for example, to their different strategic choices, management skills or business models. Hence, developed country-based firms whose business relies heavily on the emerging country's institutions are likely to face higher transaction costs and have less efficient operations, whereas firms of developed country that depend less on the emerging country's institutions are less likely to be influenced by institutional voids, and can better benefit from the advantages presented by the emerging country and convert them into more effective competitive strategies in order to survive in such a turbulent and uncertain environment (Giachetti, 2016; Hoskisson *et al*., 2000). The extent to which a firm perceives its business to be dependent on a host country's weak institutions may affect the resources the firm will put into action when entering that country.

Common entry strategies employed in foreign markets include wholly owned subsidiaries, joint ventures, franchising and licensing as well as exports (Anderson and Gatignon, 1986; Hill *et al*., 1990; Johnson and Tellis, 2008). These entry modes represent different levels of resource commitment expressed in terms of control over foreign operations. Wholly owned subsidiaries have the highest resource commitment, followed by joint ventures, franchising and licensing, and exports (Anderson and Gatignon, 1986; Hill *et al*., 1990; Woodcock, *et al.*, 1994). In what follows we examine how developed country-based firm's decision to increase control over its entry mode in emerging market changes depending on the level of institutional voids experienced by the firm in the host country.

Our argument starts from the observation that institutional voids in a firm's host country bring both behavioral and environmental uncertainties (Khanna and Palepu, 2010), but transaction cost theory offers different perspectives about the type of control a firm's entry modes should have to cope with these uncertainties. Authors suggest that in the presence of behavioral uncertainty firms should use high control entry modes to avoid foreign partners opportunism (Gatignon and Anderson, 1988), while in the presence of environmental uncertainty firms should use low control entry modes to retain strategic flexibility necessary to rapidly withdraw assets from the host country if situation so dictates (Brouthers and Nakos, 2004). We explain below how we integrate these two perspectives to build up our theory.

From low to moderate levels of institutional voids. If market supporting institutions in the firm's host country are well developed, we should expect that, all the other things being equal, the firm will not see high control over entry modes in the host country as a priority, since it will feel comfortable with the institutions to market its products (Chang *et al*., 2012). In such scenario, host country institutions act effectively as intermediaries between the entrant firm and its customers in the host country (Khanna and Palepu, 2010): 'The more open a country's economy, the more likely it is that global intermediaries will be allowed to operate there. Multinationals, therefore, will find it easier to function in markets that are more open because they can use the services of both the global and local intermediaries' (Khanna et al., 2005: 67). However, as the level of institutional voids increases from low to moderate, also behavioral and environmental uncertainty increase. We expect that, although increasing environmental uncertainty should lead companies to maintain low entry mode degree of control to retain flexibility in case of unexpected market changes, they will have to cope also with transaction costs associated with increasing *behavioral uncertainty*, i.e. the difficulties and risks a firm encounters in finding, negotiating and monitoring partners, making it difficult to safeguard

against opportunistic behaviors of local partners, like suppliers, distributors, competitors, consumers and regulators. Opportunistic behaviors in the presence of institutional voids are driven by the information asymmetry between the entrant firm and partners in the host country (Meyer, 2001). As a result, foreign entrants, especially firms that have built their businesses on the foundation of strong market institutions and intermediaries in their home country, may commit a substantial amount of resources and efforts in search of accurate and reliable information (Tong, Reuer, and Peng, 2008) making the need to increase control and commit more resources paramount in order to be competitive. For example, Deng and Tita (2013) noted that in 2014, Whirlpool Corporation, one of the largest producers of white goods, overcame the transaction costs in China, mainly associated with monitoring local partners, by investing significant amount of resources to acquire Hefei Sanyo, a Chinese competitor with a long experience in the consumer-appliances market. Therefore, for low levels of institutional voids firms will choose low-control entry modes, but as institutional voids increase from low to moderate the priority to maintain low control is outweighed by the need to mitigate behavioral uncertainty, that leads firms to increase control of their entry modes.

Higher levels of institutional voids. When the host country's institutional environment is particularly underdeveloped, the need to reduce entry mode degree of control may occur due to high levels of *environmental uncertainty*, arising from the inability of a firm to predict future events (Álvarez and Marín 2010; Brouthers and Brouthers, 2003; Morschett *et al*., 2010; Yiu and Makino, 2002; Zhao, Luo, and Suh, 2004). For example, in business environments were institutions are particularly weak, local authorities in the host country may suddenly create barriers to entry that restrict the entrant firm's actions, access to resources, or impose restrictions on the foreign transfer of goods (Delios and Beamish, 1999). A case in point is the one of Google that exited the Chinese online search engine market in 2010 because of the government

censorship and intrusions from hackers (Helft and Barboza, 2010). Moreover, in the presence of underdeveloped institutions it is often difficult for an entrant firm to evaluate the reliability of its partner in the host country (e.g., in the case of joint ventures), as well as the costs and the time required to set up physical assets (e.g., in the case of a wholly owned subsidiary). As a result, the likelihood of taking a wrong investment decision when increasing control over foreign partners is higher. In the Chinese heavy equipment industry, Caterpillar lost $580 million in 2012 after it discovered to have carried out a set of investments to increase control over a Chinese construction equipment company that had fraudulently inflated its revenues (Areddy, 2013). Therefore, from moderate to high levels of environmental and behavioral uncertainty a firm is likely to reduce its entry mode degree of control because, if the firm is not able to exploit the resources moved in the foreign country, low commitment will reduce the risk exposure (Anderson and Gatignon 1986). In other words, if the firm will decide to temporarily reduce the assets in the market or even exit the market is relatively high, the sunk costs incurred from terminating an export strategy or renegotiating a contractual agreement will be less substantial than those from ceasing a wholly owned subsidiary (Meyer, 2001; Steensma *et al*., 2005). As explicitly noted by some authors, 'with high environmental uncertainty, companies may be better off selecting non-equity, low-investment entry modes' (Brouthers and Nakos, 2004: 234), since this choice 'not only avoids resource commitment but frees entrants to change partners or renegotiate contract terms and working arrangements relatively easily as circumstances develop and change' (Anderson and Gatignon, 1986: 15).

Drawing on the arguments noted above we contend that, although from low to moderate levels of institutional voids firms are encouraged to adopt entry modes characterized by higher control mainly with the aim to mitigate behavioral uncertainty, at particularly high levels of institutional voids the need for flexibility in the use of resources overrides that of control

(Erramilli and Rao, 1993; Li and Li, 2010), i.e. the costs of environmental uncertainty outweigh the priority to reduce behavioral uncertainty by means of greater control. Thus, we posit:

Hypothesis 1: There is an inverted U-shaped relationship between institutional voids experienced by a developed country-based firm entering an emerging market and the firm's entry mode degree of control in that emerging market.

2.3. Institutional voids in emerging markets and developed country-based firms' location of business functions

'The logic [of location choices] in broad terms explores how the concentration of buyers, sellers, and know-how in specific locales facilitates transactions' (Mesquita, 2016: 3). Location choices in international markets are associated with the location of business activities, such as R&D, production, sales, distribution, and administrative functions, to geographic areas outside the home country (Alcacer, 2006; Kumar, 2001). In this study, we are interested in how institutional voids in a firm's host country influence the extent to which it decides to carry out *directly* a number of business functions in that country. With *directly* we mean those business activities whose implementation requires assets owned (at least partially) by the firm in the host country, like a firm's R&D lab, production plant, sales force, retail stores, and administrative activities (Alcacer, 2006; Lampel and Giachetti, 2013; Rugman et al., 2011). In line with our approach in deriving Hypothesis 1, we take the perspective of firms based in developed countries locating business functions in an emerging market.

From low to moderate levels of institutional voids. The benefits associated with the location of business functions in an emerging country by a developed country-based firm are substantial. For example, this strategy allows the firm to benefit from cost-saving opportunities (i.e. access to cheap labor and raw materials) (Khanna *et at*., 2005) and ensures proximity to local customers and suppliers resulting in just-in-time delivery of both goods and services (Vereecke and Van

Dierdonck, 2002). Still, in this study, we focus on a specific reason why firms may decide to locate more or less business functions in a host country: the extent to which they perceive their business environment in that country to be influenced by institutional voids. We contend that when a developed country-based firm enters an emerging market with relatively well developed market supporting institutions, the firm will opt for locating no or few business functions in the host country because, all the other things being equal, the firm will not see the location of business functions in the host country as a priority, since it will trust host market institutions as reliable intermediaries to market its products. However, as institutional voids increase from low to moderate, the need for the entrant firm to locate a greater number of business functions in the host country is likely to arise. The reason can be explained as follows. As emerging economies fall short of effective market supporting institutions, developed country-based firms in emerging markets face much higher costs and risks (Khanna and Palepu, 2010). For instance, without strong educational institutions in emerging economies, multinational companies (MNCs) of developed countries may struggle to hire skilled labor for their operations. Likewise, entrant firms from developed countries often cannot obtain reliable data on consumer tastes and purchasing behaviors, as well as obtain information about where to access raw material and components of good quality (Khanna and Palepu, 2010). These difficulties that represent an obstacle to entrant firms from developed countries to launch the right products to the right customers in an emerging market, can be overcome by locating business functions, like production and R&D, closer to foreign customers (Kumar, 1996). That is because business functions carried out directly by a firm in the emerging market can be a substitute for (a lack of) market supporting institutions (Khanna et al., 2005). In fact, since institutional voids make the performance of institutions in the firm's host country uncertain, having an increasing number of business functions directly owned in the host country allows the firm to substitute the lack of

reliable market supporting institutions in order to better access local cultures and networks, better understand consumer preference and taste, and timely adapt its offer to local needs (Lam and Yeung, 2010). This argument would suggest that, as institutional voids in the host emerging market increase, the developed country-based firm may find it appropriate to locate an increasing number of business functions in the emerging market. For example, Burkitt (2012) observed that PepsiCo in 2012 responded to the difficulty in gathering information about consumer preferences to develop products tailored to local taste in China by increasing its investments in establishing an R&D center and a pilot manufacturing plant in Shanghai. By this commitment, PepsiCo guarantees speedy and quality manufacturing process to deliver products customized to the local flavor. Similarly, obtaining information about the reliability of distributors and retailers by entrant firms may represent a gap that can be filled by bypassing the host country partner's distribution channels. For example, Cohon and MacFarlane (1997) noted that when McDonald's tried to expand its presence in the Russian market over the 1990s, it responded to the voids of underdeveloped logistics and transportation infrastructures by establishing its own trucking fleet to guarantee quicker deliveries of supplies to restaurants.

Higher levels of institutional voids. However, while the location of an increasing number of business functions in the emerging market may represent an effective strategy to overcome institutional voids for some firms, for other firms institutional voids might be so high to exacerbate managerial complexities (Cavusgil, Ghauri, and Akcal, 2012; Park and Ungston, 2001), resulting in great uncertainty about whether and how the developed country-based firm will be able to manage the various business functions in the emerging country efficiently and effectively (Alcácer, 2006; Ghemawat, 2001; Park and Ungston, 2001; Zaheer and Nachum, 2011). When institutional voids, and the uncertainty they bring into the market, become particularly high, an organization that has already located several business functions in that host

country may find further increases in the number of these functions to have a negative effect on performance (Li and Simerly, 1998). This is because the uncertainty and its associated costs triggered by the lack of market supporting institutions a firm relies on to carry on its business makes it difficult for the firm to (a) monitor the conduct of the located business functions (Alexander, 1991; Lam and Yeung, 2010), (b) predict the likely outcome of their strategic decisions (Giachetti, 2016), and then (c) manage and orchestrate resources across business functions effectively and efficiently (Khanna and Palepu, 2010). This amplifies internal governance costs necessary to build an administrative system to coordinate each facility with the rest of value chain (Hill and Hoskisson, 1987). As a result, the entrant firm experiencing high institutional voids may prefer to withdraw some business functions from the host country with the aim of reducing managerial complexity and reduce the risk of operational inefficiencies. In other words, we expect that for high levels of institutional voids in the host country, the costs of managerial complexity will escalate to a point where the priority of reducing these costs by means of a lower number of business functions overrides the priority of acquiring critical resources through direct control of business functions in the host country. A typical example of such reduction in the number of business functions located in the host country in response to high institutional voids is when Woolworths of South Africa closed some of its retail stores and administrative facilities in the Nigerian market due to the complicated and bureaucratic procedures to develop a network of independent retailers, as well as complex supply chain processes prevailing in the Nigerian economy (Minto, 2013).

We thus contend that, developed country-based firms will locate business functions in the emerging market as a response to institutional voids, but only if these voids are not particularly high. If voids prove to be particularly high, ‘multinationals [that] localize too much in emerging markets [would undermine] their advantages of scale and branding while creating operational

complexity' (Khanna and Palepu, 2010: 89). In such a situation, for a developed country-based firm to still succeed in such an emerging market, one option is that of reducing the number of business functions directly carried out in the host country (e.g., by outsourcing some functions), with the aim of reducing coordination costs. Therefore, we hypothesize that:

Hypothesis 2: There is an inverted U-shaped relationship between institutional voids experienced by a developed country-based firm entering an emerging market and the number of business functions the firm locates into that emerging market.

3. Methods

3.1. Setting and sample

The study employed Italian firms with sales activities in China over the 2000s as an appropriate setting to test the proposed hypotheses. This choice was informed by various reasons. First, China has exerted a pull on progressively more amount of foreign direct investment (FDI) since it opened its border to outside world in 1979 (with the establishment of the Special Economic Zones) and turned out to be the second-largest beneficiary of FDI in the world following the US at the early part of the 1990s. In 2001, China joined the World Trade Organization (WTO) which further liberalized its trading activities and partnership with foreign countries. This move to join the WTO resulted in a further increased trend in FDI, making China one of the investment front lines for foreign firms. Secondly, Italian firms over the 2000s have extremely enlarged their business operations into China either through FDI or through exports (ICE, Istituto Nazionale per il Commercio Estero, 2012), in this manner becoming chiefly reliant on the Chinese economy to foster their growth and remain competitive in the global arena (see the Appendix, Table 1A, for details about Italy's FDI into China over the last decades). Lastly, on one hand, China as an

emerging market is characterized by institutional voids creating daunting obstacles for companies which intend to, or operate in the Chinese markets (Khanna and Palepu, 2010); on the other hand, entrant firms have been observed to experience differently institutional voids in China over the 2000s. In fact, soon after the WTO-mandated reforms concluded, several foreign firms began to complain of an increase in discriminatory practices, more difficulty in getting licenses and approvals, a still ambiguous legal system, and complicated bureaucratic procedures (The Atlantic, 2013), signaling the presence of institutional voids in some business environments as particularly evident. This makes China an appropriate setting for understanding how the institutional environment impacts differently on key strategic decisions of entrant firms.

A total list of 922 Italian companies conducting their business operations in China was obtained from the Chamber of Commerce and the Italian National Institute of Foreign Trade (Istituto Nazionale per il Commercio Estero, ICE). This list was made up of more or less all the Italian companies earning part of the total revenue from the Chinese market. All the CEO's of these companies were contacted and asked to complete an anonymous detailed questionnaire (in Italian language) designed for studying various strategic issues including this present one. The questionnaire was designed in 2011 by the authors with the help of some market experts and CEO's with long experience in the Chinese market. A pilot test of the questionnaire was carried out and the questionnaire was modified based on the feedback from the pilot test. The completed questionnaire was finally sent out to the CEO's of all the 922 firms at the end of 2011 via email. Firms which did not reply to the initial request were contacted again a second time. A total of 140 (15.2%) usable questionnaires were received from the firms.

The base population of the survey was initially defined to include all Italian firms conducting their operations in China. However, we employed a subset of firms which entered China from 2001 onwards in our analysis for mainly two reasons. First, it was necessary to check for possible

biases in the data as a result of referring to events too distant in the past (Meyer *et al*., 2009). Second, it was also important to ensure that the joining of WTO by China in 2001 does not affect the results, since the accession to WTO liberalized China's foreign trade policy and dismantled some barriers to foreign investments in various industries. Following this selection criteria, our final sample for the study consisted of 90 Italian firms operating in China.[2]

3.2.Measures

The dependent variable of the study is firm's resource commitment defined into two separate variables: (1) entry mode degree of control in China (*EMDC*) and (2) the number of business functions located in China (*LOCATBF*). The level of institutional voids (*INSTVOIDS*) present in the firm's industry within the Chinese market is the main independent variable.

3.2.1. Entry mode degree of control into the emerging market

Studies show that entry strategies can be classified based on the extent to which they allow the firm to exercise control over its operations in the foreign markets (Anderson and Gatignon, 1986). Consistent with empirical measures used in the extant literature (Giachetti, 2016; Johnson and Tellis, 2008) we employed a four-point ordinal scale ranging from 0 to 3 to calibrate the entry mode strategies of varying degree of control and resource commitment as follows: exports (0), franchises and licenses (1), joint ventures (2), and wholly owned subsidiaries (3). Because the firm may decide to enter a foreign market by any of these entry modes or a combination of these, and as the choice of the entry strategy may change over time (Benito, Petersen, and Welch, 2011), we requested the respondent to indicate all the various entry mode(s) the firm has used in conducting business activities in China since the initial entry in 2001 till 2010.[3] Lastly, based on

[2] Our sample size and response rate are consistent with other studies in the extant strategy literature (e.g., Ahmed et al., 2002; Newbert, 2008, Demirbag et al., 2010).

[3] Also noted by Petersen and Pedersen (1999), resource commitment, both in terms of entry mode degree of control and location choices, is not an instantaneous, one-off process, and should be instead examined over time, since a firm

the four-point scale, the average score of the various entry strategies was used to indicate the overall level of resource commitment by the firm over the considered time frame (2001–2010). (See the Appendix, Table 2A, for details of items employed in measuring *EMDC*).

3.2.2. Number of business functions located into the emerging market

A firm's resource commitment to the Chinese market in terms of location choices of business functions was measured by the number of business functions the firm carries out directly on the Chinese market. These business functions include the firm's own: (a) R&D lab, (b) production or assembly plant, (c) sales force, (d) retail stores or distribution chain and (e) administrative activities like human resource management or legal services (Rugman *et al*., 2011). The variable ranges from 0 to 5 (see the Appendix, Table 2A, for details about the items used).

3.2.3. Institutional Voids

In order to measure the extent to which institutional voids within the Chinese market are embedded in the entrant firm's business environment, the respondents were first asked to indicate on a seven-point Likert-type scale, ranging from 'almost nothing' to 'a lot,' the degree to which they perceive various institutional voids in their industry within the Chinese market (see the Appendix, Table 2A). The nine items used were derived from both literature (Khanna and Palepu, 1997, 2010) and in-depth interviews with market experts during the questionnaire development and pilot test. Cronbach alpha computed on the nine items scale was found to be above 0.70 (Cronbach's alpha = 0.72), suggesting that the scale is internally consistent (Nunnally, 1978). We also conducted a principal components analysis with Promax rotation on the nine items of our *INSTVOIDS* variable, to assess (a) whether factors emerged, and (b) the variable discriminant and convergent validity. As shown in Table 2, the principal components analysis categorized the institutional voids items into three factors (with Eigenvalues greater than 1), that we named: (a)

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may cumulate a set of heterogeneous strategic actions that may consolidate its entry strategy years after the first entry.

voids in product market, (b) voids in the regulatory system, and (c) voids in labor and capital markets, on the base of factor loadings in absolute value greater than 0.4 (Nunnally, 1978). Interestingly, these three factors are very similar to the macro-types of institutional voids described in the extant literature (Khanna et al., 2005). Convergent validity is established if the average variance extracted (AVE) for the factors approaches or is greater than 0.5 and discriminant validity is also demonstrated if the variance extracted is greater than the corresponding squared correlation of the factors (Fornell and Larcker, 1981). We found all these conditions to be satisfied.

It is worth noting that *INSTVOIDS* is a subjective measure of how much the interviewee, i.e. the CEO, perceives institutional voids to hamper the internationalization process of the firm into China. Since the measure is subjective, CEOs might express a different level of perception about the voids because each item of the institutional voids indicator represents a specific void the firm has to face, and firms are expected to be heterogeneous in the various combinations of voids they have to cope with. For example, firm A might have to deal with voids in the product market but less with voids in the regulatory system. Similarly, firm B might be very much affected by voids in the regulatory system but less affected by the voids in labor and capital market. Consequently, the mean score of the nine items in Table 2 was used for the subsequent analysis, and we repeated the analysis as a robustness check with a measure of institutional voids per each of the three dimensions obtained from the principal components analysis.

Please insert Table 2 around here

3.2.4. Control variables

Our analysis also calls for controls. *Firm size* (*SIZE*) was controlled by the natural logarithm of the firm's revenue (in 2010). *Firm age* (*AGE*) was captured as the natural logarithm of the

number of years the firm has existed (Fernandez and Nieto, 2006). *Experience in developing countrie*s (*EXPEDEVEL*) was measured as the number of developing countries and emerging economies the firm has operated since its inception. *Experience in the Chinese market* (*EXPECHINA*) was measured as the natural logarithm of the number of years the firm has been conducting its business in the Chinese market. *Degree of family ownership (FAMOWN),* usually quite high in Italian firms, was measured with an ordinal scale based on the proportion the firm's total shareholders' equity controlled by the founding family: < 10 % (1), between 10 and 30 % (2), between 30 and 50 % (3), between 50 and 70 % (4), > 70 % (5). We also wanted to control for the 'size of a firm's resource commitment' to the Chinese market, i.e. the total value of resources invested in China. Although we do not have data on the amount of equity and assets invested in the Chinese operations, we partially captured the effect of this variable by asking respondents to indicate the number of employees directly paid by the firm in the Chinese market (*EMPLCHINA*). Moreover, in order to account for the elements of perceived attractiveness of the Chinese market (Elia *et al.*, 2014), respondents were asked to indicate the degree to which each of the three following opportunities have encouraged the firm to operate in the Chinese market (based on a scale from 1 to 7, where 1=not at all, and 7=very much): (a) market size (number of potential customers) (*MARKET_OP*), (b) low costs related to production factors (e.g.: labor, plant, equipment, raw materials, etc.) (*LOWCOST_OP*), (c) presence of on-site advanced technology (*TECH_OP*). We wanted to account also for the fact that resource commitment decisions may depend on existing resources available to the developed country-based firm at the parent-group-level. In fact, for a subsidiary of an MNC the decision to commit resources may be easier because its superstructure (i.e., parent group) can substitute for institutional voids (Zhao, 2006). We thus used a dummy *GROUP* that takes value 1 if the firm belonged to a group and 0 otherwise (Giachetti, 2013). *Competitive intensity in China* (*COMPINT*) was accounted through a

two-item indicator. Specifically, respondents were asked to express a judgment about the number of their firm's competitors in the Chinese market (based on a scale from 1 to 7, where 1=few competitors and 7=many competitors), and to express an opinion about the degree to which competitive strategies of competitors in the Chinese market have threatened/are threatening the firm's performance (based on a scale from 1 to 7, where 1=low threat, 7=high threat). The items' mean score was used for the subsequent analysis (Cronbach's alpha = 0.79). Finally, we included a set of 16 *industry dummies* which enabled us to capture any unobserved industry factors that influence the firm's operations in China. The coding of the industries was done in accordance with the ATECO codes of economic activities.[4]

With a usable sample size of 90 firms, this analysis yields a sample-to-variable ratio of 8.2 : 1. Scholars have traditionally relied on anecdotal evidence when proposing appropriate sample-to-variance ratios, resulting in wide-ranging recommendations, from a low ratio of 3 : 1 to a high ratio of 10 : 1 (Everitt, 1975). More recently, however, rigorous statistical studies find that ratios above 5 : 1 are adequate to produce robust findings (e.g. Conway and Huffcutt, 2003). We thus concluded that our sample-to-variable ratio is appropriate.

It is worth noting that we took various strategies to avoid common method bias in our analysis (Podsakoff *et al.*, 2003). First, we used procedural remedy to separate our predictor and criterion variables psychologically (Podsakoff *et al.*, 2012, 2003) by making sure that the groups of items from which we derived the variables were located in different sections of the questionnaire and were not connected or related to each other. (Table 2A). Second, we attempted to reduce common method bias by guaranteeing anonymity of the respondents. Third, after the survey was completed, we performed various in-depth interviews with some managers of the

[4]ATECO codes of economic activities are developed by the Italian government statistical association (ISTAT), based on the Classification of Economic Activities provided by the European Community. Based on ATECO codes, 16 economic activities (i.e., industries) were identified among the 90 sampled firms.

sampled firms to check whether there was consistency with how they rated the items in the questionnaire; no inconsistency was found between the information gathered from the interviews and that collected in the questionnaires.

4. Results

4.1.Test of the hypotheses

Table 3 reports the descriptive statistics and the correlation matrix for the variables included in the models. The correlations among independent variables are relatively low, suggesting that multicollinearity should not be a problem in the models. This is confirmed by the variance inflation factor (VIF). In our models, VIF values were not higher than 1.71, thereby falling within the acceptable limit of 10 (Chatterjee and Hadi, 2006).

Please insert Table 3 around here

We tested our hypotheses with two regression models. The effect of institutional voids on entry mode degree of control was tested with a robust OLS regression, while when using resource commitment in terms of number of business functions, i.e. a count measure, we used a robust Poisson regression (Cameron and Trivedi, 2009).

Table 4 shows the results of OLS regression models for the proposed inverted U-shaped relationship between institutional voids and *EMDC* (Hypothesis 1). Model 1 (Table 4) is an examination of control variables on *EMDC*. In Model 2 (Table 4), we show the result of the linear effect of institutional voids (*INSTVOIDS*) on *EMDC* (β = 0.227, p <0.1). In Model 3 (Table 4), in order to test for Hypothesis 1, we add the squared term of institutional voids (*INSTVOIDS_SQ*). As shown in Model 3, there is a statistically significant, positive relationship between institutional voids and *EMDC* (β = 1.606, p <0.01) and a negative relationship between

institutional voids squared and *EMDC* (β = -0.207*, p* <0.05). Combining these relationships denote an inverted U-shaped relationship between institutional voids and entry mode degree of control, thereby providing support for Hypothesis 1. It can be noticed from Table 4 that a comparison of the R-squared (and adjusted R-squared) of Models 2 and 3 points out a significant positive change (*ΔR-sq*= 0.05; *F-test for ΔR-sq*=4.74, *p*<0.05) upon the addition of the quadratic term of institutional voids. This gives an indication that Model 3 provides a better fit to the data than Model 2. Figure 1A in the Appendix illustrates the relationship we obtained.

Please insert Table 4 around here

In Table 5, we report the results of the robust Poison regression models for the analysis of the proposed inverted U-shaped relationship between institutional voids and *LOCATBF* (Hypothesis 2). In Model 7 (Table 5) only the effect of controls on *LOCATBF* was considered. Model 8 shows the result of the linear relationship between institutional voids and *LOCATBF* (β = 0.161*, p* <0.05). In Model 9, we include the squared term of the institutional voids to test Hypothesis 2. The results indicate that both the institutional voids variable and its quadratic term are statistically significant with the appropriate signs as predicted (β = 1.346, *p* < 0.01*;* β = -0.166, *p* <0.01), and that there is a significant positive change in the Pseudo R-squared with respect to Model 9 (*ΔPseudo R-sq*= 0.0.18; *F-test for ΔPseudo R-sq*= 9.02, *p*<0.01), providing support for Hypothesis 2. Figure 2A in the Appendix shows the relationship we obtained.

Finally, it is worth noting that, despite our relatively small sample size, and the fact most of our control variables are not or marginally significant, our key regressors (i.e., *INSTVOIDS* and *INSTVOIDS_SQ*) are highly significant (with a *p*-value significant always at least at 95%), and all R-sq tests are quite high, with values ranging from 0.405 to 0.512 in Table 4, and from 0.165

to 0.201 in Table 5, pointing to the fact that the impact of the antecedents of resource commitment we have examined is not negligible.

Please insert Table 5 around here

4.2. Robustness checks

We took various steps to ensure the results are robust. First, we rerun the analysis with two different subsamples, one with firms which entered China from 2002 and one with firms which entered China from 2003, as indicated in Models 4 and 5 (Table 4) for the OLS regressions, and in Models 10 and 11 (Table 5) for the Poisson regressions. In all these subsamples, the results remained consistent with the findings obtained with the full sample. Second, as for the *EMDC* variable, since we asked respondents to indicate also the mode initially used to enter the Chinese market, we rerun the analysis presented in Model 4 by considering only this entry mode type.[5] As can be observed in Model 6 in Table 4, results remained consistent. Third, since the principal components analysis categorized the institutional voids items into three factors (Table 2), we repeated the regression analysis with three different measures of *INSTVOIDS*, with each measure computed as an average of the items referring to a given factor. As shown in Table 6, per each type of dependent variable, i.e. entry mode degree of control (Models 12-14) and number of business functions located in the host country (Models 15-17) results remained consistent with our predictions in two out of the three institutional voids dimensions.

Please insert Table 6 around here
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[5] In 8 out of 90 cases, firms entered with two entry mode types simultaneously. In these cases we took the average of the two ordinal scales.

5. Discussion

5.1. Implications for theory

This study builds on the institutional theory and transaction-cost theory in international business to examine the impact of institutional voids in an emerging market on entrant firms' resource commitment. Specifically, the paper takes the perspective of developed country-based firms coping with institutional voids when entering an emerging market. The extant literature has by far offered inconclusive results on the relationship between voids in the host country's institutional environment and entrant firms' resources commitment (as previously synthesized in Table 1). Some authors have theorized and empirically observed that institutional voids in the host country foster the movement of resources by entrant firms (Chang *et al*., 2012). Others have found that institutional voids discourage entrant firms to move resources abroad (Meyer *et al* 2009; Morschett *et al*., 2010). Finally, other authors found the relationship between institutional voids and resource commitment not to be significant (Ang and Michailova, 2008). In this paper, we have shown that the reason for these mixed results is that the relationship is more complex than has been theoretically developed and empirically tested. More specifically, while we agree with the authors providing evidence for a positive relationship between the level of institutional voids and entrant firms' resource commitment, we contend that beyond a certain level of institutional voids in the host country, the positive relationship does not hold any longer. This implies that above certain limits of institutional voids in a host country, firms no longer have the incentives to increase the control of their resources in the host country but rather, decrease control, indicating that at lower and higher levels of institutional voids firms will show lower resource commitment than at moderate levels of institutional voids (as illustrated in Figures 1A and 2A).

Second, this study complements extant literature on the institutional voids–resource commitment relationship by examining resource commitment from different angles: (1) the entry mode degree of control, and (2) the number of business functions located in an emerging market. Interestingly, our theory suggests that the two inverted U-shaped relationships we present in Hypothesis 1 and 2 are drawn from different streams of literature and are based on different theoretical mechanisms. We explain the relationship between institutional voids and entry mode degree of control by bridging the institution-based view of strategy with the transaction cost literature of entry mode choices, and we argue that as institutional voids increase, managers perception about uncertainty also change. In fact, although as institutional voids in the host country increase they bring both behavioral and environmental uncertainty at the eyes of entrant firms, our theory suggests that from low to moderate levels of institutional voids the firm priority is to mitigate behavioral uncertainty, emanating from the inability of the firm to predict the behavior of partners in a foreign country, while from moderate to high levels of institutional voids the firm priority is to mitigate environmental uncertainty, resulting from the firm's inability to predict how the market will evolve in countries with highly underdeveloped institutions. The result is that, although greater entry mode degree of control may help to reduce behavioral uncertainty, for high levels of institutional voids the costs of environmental uncertainty will override the priority of greater control, calling for more strategic flexibility, which can be reached with lower-control entry modes.

Instead, we explain the relationship between institutional voids and the number of business function located in the host country by bridging the institution-based view of strategy with the location choice literature. The mechanisms at play here are the entrant firm's need of direct control of resources in the host country to better access customers and suppliers, and the need to mitigate managerial complexity of handling several business functions in the host country. While

we contend that when emerging economies have effective and efficient institutions supporting business and market transactions, entrant firms can operate conveniently from their home economies and the need for locating business functions may not arise, we also argue that, as emerging markets become void of institutions, transaction cost increases (Khanna and Palepu, 1997; 2010; Meyer *et al*., 2009; Yiu and Makino, 2002) and therefore entrant firms may need to locate business functions in the emerging economies in order to have a direct control on the various stakeholders in the host country. However, beyond a certain level of institutional voids, having many resources in the form of business functions in the host country becomes too risky, because uncertainty created by the voids in the host country is likely to exacerbate the coordination complexity of the various business functions located in the host country. This, in turn, leads to a reduction in resource commitment in terms of number of business functions located in the host country.

Another contribution of this paper is related to the perspective we take about the host-country institutional voids, both in terms of level of analysis and empirical measures. In fact, while the existing literature on the role of the institutional environment in international business is centered on comparing how countries differ in terms of country-level measures of institutional voids derived from secondary sources (Álvarez and Marín, 2010; Brouthers and Brouthers, 2003; Chang *et al*., 2012; Meyer *et al*., 2009), we consider analyzing institutional voids from a CEO's 'subjective' point of view, by means of survey data on managers' perception of institutional voids in the host country. With this measure we respond to a specific call in the international business literature to explore other ways of operationalizing market institutions (Orr and Scott, 2008), in particular by means of measures that account for the fact that the level of development of a host country institutional environment may vary radically among different business environment in that host country (Henisz and Zelner, 2010; Khanna and Palepu, 2010). This

measure we have developed allows us to capture the extent to which firms entering the same country actually perceive to be affected by voids in the institutional environment.

5.2. Limitations and suggestions for further studies

This paper has some limitations that could benefit from further research. First, our study is limited in the scope of its research design. Considering the diversity among emerging economies, it is important to broaden the scope of the study of strategies in these economies to account for country-specific factors that could impact on a firm's resource commitment to these emerging economies. However, our study focused only on a single country – we sampled Italian firms operating in China. For this reason, questions concerning the generalizability of the findings to other emerging economies remain unanswered. We encourage further studies to consider extending our analysis into other emerging economies.

Second, this paper does not take into account the influence of the home country institutional environment on the firm's resource commitment. We believe that analyzing how both the home and host country institutions impact on a firm's entry strategy and location choices simultaneously will provide a deeper understanding and contribute significantly to the literature.

Third, although our questionnaire was directed to top management teams of the sampled firms, it was anonym, and often we received the filled questionnaire via email by the administrative office of the company (and not by the manager that filled it), with no name of the manager that filled it. For this reason, we could not be certain of the manager that filled the questionnaire, and check when he/she joined the company (e.g., before or after the firm's entry into China). Obviously, in case of changes in management, the previous managers may not have perceived the institutional voids in the same way as the present managers. Still, it is also worth noting that, given the relatively small size of most of firms in our sample (the average revenue in

2010 was €20.7 million) and their high family control (on average in 2010 the percentage of equity controlled by the founding family was between 50% and 70%) (see Table 2), CEOs and top managers turnover should not be particularly frequent among our sampled firms (Chen, Cheng, and Dai, 2013; Huson, Parrino, and Starks, 2001). We hope feature research will replicate our study by controlling for respondent-level characteristics, like years of tenure in the focal firm.

Finally, it is important to note that despite the quality of institutional environment in the host country, a firm's decision to commit resource into foreign country may be induced by the potentially utilizable resources (slack resources) the firm has. These resources are deployed to build capabilities that make firms immune to some operational difficulties (such as those emanating from weak institutions in the host country) (Daniel *et al*., 2004; George, 2005). In our study, we are unable to account for how the slack resources a firm has influenced the firm's decision to commit resources in foreign markets. We expect that future study will find measures to capture the effect of this important variable.

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Table 1. Empirical studies on the relationship between institutional voids in the host countries and entrant firms' resource commitment

Author(s) and year of publication [a]	Dependent variable: resource commitment in the host country	Independent variable: institutional voids in the host country	Entrant firms and host countries	Observation period	Proposed theoretical argument	Sign of the relationship (obtained findings) [b]	Reference literature
Elia *et al.* (2014)	Types of delocalization mode with different levels of control (full control of foreign functions; outsourcing of foreign functions to third-party providers)	The level of development of institutional infrastructures measured in terms of political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption, maintenance and development of distribution infrastructure	132 delocalization projects of firms mainly based in developed countries entering in both developed countries and emerging economies	2009	The higher the quality of political and market infrastructure in the host country, the lower the probability of outsourcing business functions to third-party providers, thereby the higher the propensity to increase control over functions (because of the lower need to limit exposure and to be able to quickly disinvest)	Not significant	Transaction cost theory
Brouthers (2013)	Types of entry mode with different levels of control (joint venture; wholly owned subsidiary)	The level of legal restrictions in the host country	178 EU firms operating in 27 developing and transitional economies	1995	Firms entering markets characterized by high legal restrictions tend to use joint ventures as opposed to wholly owned subsidiary	Negative	Institutional theory and transaction cost theory
Chang *et al.* (2012)	Types of entry mode with different levels of control (wholly owned subsidiary; joint venture)	The degree of governance quality, expressed in terms of control of corruption, rule of law, regulatory quality, government effectiveness, political stability, voice and accountability and absence of violence	646 Taiwan firms operating in 13 overseas countries (developed and developing countries)	1999–2008	MNCs tend to choose joint venture as oppose wholly owned subsidiary as entry mode when governance quality in the host country is good and vice versa	Positive	Institutional theory
Álvarez and Marín (2010)	Types of entry mode with different	The degree of institutional voids measured in terms of	Firms based both in developed and	1998 –2004	High institutional voids in host economies foster export as	Negative	Institutional theory

	levels of control (export; greenfield; cross-border merger and acquisition)	the level of control of corruption, rule of law, political stability, voice and accountability, governance effectiveness, and regulatory quality	developing countries entering various foreign countries		opposed to equity-based entry modes		
Demirbag *et al.,* (2010)	Entry modes with different levels of control (joint venture; wholly owned subsidiary)	Ethical-societal uncertainties measured in terms of (1) social, political and economical risk (2) level of corruption	104 Turkish companies operating in Central Asian Republics	Not specified	Greater ethical-societal uncertainties result in a preference for joint venture over wholly owned subsidiary.	Negative	transaction cost theory, Institutional theory
Morschett *et al*. (2010)	Entry modes with different levels of control (joint venture; wholly owned subsidiary)	The degree of legal restrictions in the host country	Not specified	Meta-analysis covering the last 35 years up to 2010	Firms prefer to enter a host country with high level of legal restrictions (high level of institutional voids) with joint ventures as against wholly owned subsidiaries	Negative	Institutional theory, transaction cost theory, and resource-based view
Meyer *et al*. (2009)	Entry modes with different levels of control (greenfield; acquisition; joint venture)	The degree of strength of market supporting institutions expressed in terms of the level of business freedom, trade freedom, property right protection, investment freedom, financial freedom	MNCs operating in India, Vietnam, Egypt and South Africa	1994–2000	Firms enter emerging economy with stronger market supporting institutions (low institutional voids) by greenfield or acquisition (as oppose joint venture)	Negative	Institutional theory and resource based view
Ang and Michailova (2008)	Types of entry mode with different levels of control (equity alliance mode; non-equity alliance mode).	The degree of rule of law, control of corruption, regulatory quality, government effectiveness, political stability, voice and accountability and absence of violence	628 firms from Brazil, Russia, India, and China operating in other countries	1995–2004	The adoption of equity alliance mode (joint venture) against non-equity alliance mode is positively affected by levels of institutional voids	Not significant	Institutional theory

Sanyal (2004)	Expenditure on R&D of majority owned affiliates of US MNCs in the host country.	Level of intellectual property right protection in the host country.	Majority-owned affiliates of US multinational enterprises in both developed and developing countries	1982 –1998	A stronger intellectual property protection in the host country induces MNCs to locate their key R&D facilities in the host country	Negative in the case of full sample (developed and developing countries); not significant in the sub-sample of developing economies	Determinants of location of overseas R&D activities
Brouthers and Brouthers (2003)	Types of entry mode with different levels of control (wholly owned subsidiary; joint venture)	Environmental uncertainties expressed in terms of the degree of stability of the political, social and economic conditions in the host country, and the risk of converting and repatriating income from the host country.	227 Western European firms entering eastern Europe	Not specified	Firms facing high environmental uncertainty in the host country prefer joint venture to wholly owned subsidiary	Negative	Transaction cost theory, risk and trust
Brouthers (2002)	Types of entry mode with different levels of control (joint venture; wholly owned subsidiary)	The level of legal restrictions in the host country	178 EU firms operating in 27 developing and transitional economies	1995	Firms entering markets characterized by high legal restrictions tend to use joint ventures as opposed to wholly owned subsidiary	Negative	Institutional theory and transaction cost theory
Yiu and Makino (2002)	Types of entry mode with different levels of control (wholly owned subsidiary; joint venture)	Regulative institutions expressed in terms of the level of state influence; normative institutions expressed in terms of cultural influence; and cognitive institutions expressed in	Japanese companies listed on the Japanese stock exchange operating in other economies	1996	Foreign firms are more likely to form a joint venture with local partners than wholly owned subsidiary as the degree of regulative and normative pressures in a host country increases	Negative	Institutional theory, transaction-cost theory

		terms of mimetic entry					
Kumar (2001)	MNC's R&D expenditures in the host country over total sales	Level of intellectual property protection (IPP) in the host country	Majority-owned affiliates of US and Japanese enterprises with R&D activity in industrialized and developing countries	1982, 1989, 1994	MNCs are better placed to obviate the constraints placed by a weak patent regime by registering patents in their home countries than national firms	Not significant	Determinants of location of overseas R&D activities
Kumar (1996)	MNC's R&D expenditures in the host country over total sales	Level of intellectual property protection (IPP) in the host country	Majority-owned affiliates of US enterprises with R&D activity in industrialized and developing countries	1997, 1982, 1989	MNCs may be apprehensive about locating their key R&D centers in countries with weak IP regimes. Still, MNCs do some local R&D in countries with weak IP regimes to safeguard their IP by registration of adaptations as local innovations	Negative when the host country is a developed country; not significant when the host country is an emerging economy	Determinants of location of overseas R&D activities

[a] Articles ordered from the most recently published.
[b] While some studies have developed indicators of institutional voids that increase the higher the voids in the host country, other studies have developed indicators that work in the opposite direction, i.e. increase the lower the voids. Here we refer to the sign of the relationship between institutional voids and resource commitment.

Table 2. Principal components analysis results for institutional voids items

Institutional voids items	Principal Components Analysis; Promax Rotation loadings		
	Factor 1 (voids in the product market)	Factor 2 (voids in the regulatory system)	Factor 3 (voids in labor and capital markets)
Difficulty in obtaining adequate and reliable information on consumers and suppliers.	0.86	0.07	-0.17
Difficulty in advertising products and services.	0.79	-0.02	0.14
Lack of infrastructure to facilitate the relationship between the firm and its clients/suppliers.	0.53	-0.01	0.26
Complicated or ambiguous bureaucratic procedures.	0.10	0.87	-0.19
Ambiguous legal system.	0.02	0.77	0.00
Underdeveloped payment systems.	-0.30	0.50	0.45
Low level of education infrastructures.	-0.02	-0.23	0.88
Distrust and lack of acceptance toward foreign firms/managers	0.21	0.05	0.56
Difficult access to financial resources and loans.	0.23	0.23	0.44
Eigen values	2.85	1.33	1.06
Percentage of variance explained	31.69	14.75	11.73

Table 3. Descriptive statistics and correlations

		mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	EMDC	1.657	1.212	1.000													
2	LOCATBF	1.833	1.400	0.522***	1.000												
3	INSTVOIDS	3.383	1.148	0.274**	0.206^{+}	1.000											
4	SIZE	16.844	2.201	0.136	0.445***	-0.086	1.000										
5	AGE	3.134	1.124	-0.042	0.158	-0.062	0.451***	1.000									
6	FAMOWN	4.022	1.514	0.032	-0.104	0.055	-0.184^{+}	-0.004	1.000								
7	EXPEDEVEL	2.678	1.620	-0.240*	-0.004	-0.161	0.284**	0.250*	-0.199^{+}	1.000							
8	EXPECHINA	1.388	0.758	0.185^{+}	0.203^{+}	0.142	0.223*	0.303**	-0.078	0.058	1.000						
9	EMPLCHINA	97.900	343.140	0.151	0.368***	-0.106	0.504***	0.219*	-0.230*	0.150	0.170	1.000					
10	MARKET_OP	6.211	1.518	0.004	0.181^{+}	0.147	0.089	-0.106	-0.007	0.042	-0.111	0.061	1.000				
11	LOWCOST_OP	3.133	2.219	0.356***	0.336**	0.282**	-0.010	-0.039	0.099	-0.157	0.100	0.056	-0.015	1.000			
12	TECH_OP	1.511	0.915	0.138	0.137	0.048	-0.050	0.130	0.146	-0.077	0.125	-0.091	-0.006	0.121	1.000		
13	GROUP	0.567	0.498	0.235*	0.282**	-0.113	0.296**	0.117	-0.136	-0.022	-0.048	0.129	0.137	0.073	0.196^{+}	1.000	
14	COMPINT	4.561	1.662	0.054	0.043	0.002	0.142	0.110	-0.014	0.233*	0.177^{+}	0.053	0.144	0.071	-0.069	-0.008	1.000

$N = 90$

$^{+}\ p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$

Table 4. Robust OLS regression: Relationship between institutional voids and entry mode degree of control into the emerging market

	Model 1 (entries from 2001)	Model 2 (entries from 2001)	Model 3 (entries from 2001)	Model 4 (entries from 2002)	Model 5 (entries from 2003)	Model 6 (only first entry mode)
INSTVOIDS		0.227+	1.606**	1.546*	1.527*	1.659*
		(0.128)	(0.604)	(0.596)	(0.650)	(0.674)
INSTVOIDS_SQ			-0.207*	-0.198*	-0.199+	-0.221*
			(0.095)	(0.094)	(0.101)	(0.107)
SIZE	0.078	0.079	0.071	0.073	0.094	0.086
	(0.105)	(0.101)	(0.097)	(0.101)	(0.103)	(0.113)
AGE	-0.190	-0.196	-0.252+	-0.260+	-0.257+	-0.273+
	(0.135)	(0.130)	(0.130)	(0.137)	(0.150)	(0.144)
FAMOWN	0.106	0.111	0.113	0.104	0.087	0.142
	(0.102)	(0.093)	(0.093)	(0.098)	(0.106)	(0.106)
EXPEDEVEL	-0.115	-0.112	-0.109	-0.094	-0.091	-0.104
	(0.106)	(0.102)	(0.102)	(0.103)	(0.115)	(0.111)
EXPECHINA	0.197	0.132	0.111	0.163	0.173	0.140
	(0.215)	(0.205)	(0.189)	(0.203)	(0.221)	(0.191)
EMPLCHINA	0.000+	0.000+	0.000+	0.001*	0.000+	0.001*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MARKET_OP	-0.061	-0.093	-0.086	-0.059	-0.039	-0.138
	(0.107)	(0.105)	(0.092)	(0.095)	(0.100)	(0.107)
LOWCOST_OP	0.160*	0.136+	0.145*	0.165*	0.159*	0.112
	(0.074)	(0.073)	(0.070)	(0.073)	(0.074)	(0.077)
TECH_OP	0.088	0.075	0.064	0.017	0.028	0.005
	(0.145)	(0.151)	(0.155)	(0.165)	(0.177)	(0.193)
GROUP	0.523	0.604+	0.603+	0.611+	0.606+	0.599
	(0.328)	(0.316)	(0.311)	(0.326)	(0.336)	(0.366)
COMPINT	0.073	0.073	0.046	-0.010	0.018	0.009
	(0.099)	(0.097)	(0.097)	(0.094)	(0.104)	(0.114)
Industry dummies	Included	Included	Included	Included	Included	Included
Constant	0.525	-0.119	-1.930	-1.993	-2.541	-2.687
	(1.649)	(1.667)	(1.724)	(1.759)	(1.832)	(1.992)
N	90	90	90	85	79	90
R-sq	0.405	0.436	0.486	0.505	0.512	0.415
Adj. R-sq		0.191	0.250			
F-test for ΔR-sq	-	3.15+	4.74*	-	-	-

Robust standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5. Robust Poisson regression: Relationship between institutional voids and number of business functions located in the emerging market

	Model 7 (entries from 2001)	Model 8 (entries from 2001)	Model 9 (entries from 2001)	Model 10 (entries from 2002)	Model 11 (entries from 2003)
INSTVOIDS		0.161*	1.346**	1.293***	1.209**
		(0.066)	(0.412)	(0.387)	(0.369)
INSTVOIDS_SQ			-0.166**	-0.159**	-0.150**
			(0.055)	(0.051)	(0.049)
SIZE	0.152**	0.147**	0.146**	0.134**	0.147**
	(0.053)	(0.050)	(0.047)	(0.047)	(0.047)
AGE	-0.071	-0.043	-0.085	-0.063	-0.057
	(0.086)	(0.089)	(0.084)	(0.091)	(0.108)
FAMOWN	-0.004	-0.007	-0.009	-0.024	-0.029
	(0.055)	(0.049)	(0.047)	(0.041)	(0.045)
EXPEDEVEL	-0.051	-0.047	-0.057	-0.047	-0.045
	(0.044)	(0.041)	(0.038)	(0.037)	(0.040)
EXPECHINA	0.105	0.066	0.020	0.056	0.090
	(0.153)	(0.156)	(0.143)	(0.150)	(0.161)
EMPLCHINA	0.000	0.000+	0.000+	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MARKET_OP	0.089	0.072	0.076	0.064	0.059
	(0.081)	(0.081)	(0.075)	(0.073)	(0.084)
LOWCOST_OP	0.116***	0.100**	0.120***	0.111***	0.101**
	(0.034)	(0.032)	(0.033)	(0.033)	(0.034)
TECH_OP	0.101	0.077	0.068	0.057	0.065
	(0.065)	(0.062)	(0.055)	(0.055)	(0.059)
GROUP	0.164	0.225	0.260+	0.272+	0.250
	(0.172)	(0.165)	(0.149)	(0.143)	(0.152)
COMPINT	-0.004	-0.005	-0.014	-0.032	-0.024
	(0.050)	(0.051)	(0.051)	(0.049)	(0.051)
Industry dummies	Included	Included	Included	Included	Included
constant	-3.001***	-3.480***	-5.347***	-5.026***	-5.125***
	(0.783)	(0.803)	(1.101)	(1.080)	(1.062)
N	90	90	90	85	79
Pseudo R-sq	0.165	0.178	0.196	0.199	0.201
F-test for Δ Pseudo R-sq	-	5.89*	9.02**	-	-

Robust standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6. Relationship between the different types of institutional voids and entry mode degree of control, and the number of business functions into the emerging market.

	Robust OLS regression: entry mode degree of control			Robust Poisson regression: number of business functions		
	Model 12 (voids in product market)	Model 13 (void in labor and capital markets)	Model 14 (voids in regulatory system)	Model 15 (voids in product market)	Model 16 (void in labor and capital markets)	Model 17 (voids in regulatory system)
INSTVOIDS	0.939*	1.290***	0.580	-0.094	0.829***	0.663*
	(0.464)	(0.308)	(0.424)	(0.332)	(0.229)	(0.333)
INSTVOIDS_SQ	-0.154*	-0.156**	-0.057	0.014	-0.094**	-0.069^{+}
	(0.071)	(0.049)	(0.059)	(0.046)	(0.030)	(0.041)
SIZE	0.062	0.055	0.093	0.155**	0.143**	0.169**
	(0.108)	(0.087)	(0.102)	(0.057)	(0.048)	(0.053)
AGE	-0.282^{+}	-0.227^{+}	-0.214^{+}	-0.063	-0.077	-0.066
	(0.153)	(0.115)	(0.125)	(0.088)	(0.081)	(0.083)
FAMOWN	0.139	0.100	0.089	-0.007	-0.004	-0.013
	(0.109)	(0.083)	(0.094)	(0.060)	(0.048)	(0.052)
EXPEDEVEL	-0.080	-0.064	-0.155	-0.054	-0.019	-0.090*
	(0.105)	(0.095)	(0.111)	(0.046)	(0.038)	(0.045)
EXPECHINA	0.180	0.032	0.150	0.109	-0.001	0.052
	(0.222)	(0.171)	(0.194)	(0.157)	(0.134)	(0.133)
EMPLCHINA	0.000^{+}	0.001*	0.001*	0.000	0.000**	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
MARKET_OP	-0.056	-0.117	-0.069	0.090	0.076	0.093
	(0.106)	(0.079)	(0.095)	(0.078)	(0.073)	(0.070)
LOWCOST_OP	0.183*	0.140*	0.127^{+}	0.113**	0.111**	0.103**
	(0.075)	(0.066)	(0.075)	(0.038)	(0.035)	(0.033)
TECH_OP	0.108	0.080	0.101	0.100	0.087	0.086
	(0.146)	(0.134)	(0.152)	(0.067)	(0.061)	(0.063)
GROUP	0.527	0.506^{+}	0.490	0.154	0.171	0.131
	(0.346)	(0.282)	(0.311)	(0.175)	(0.160)	(0.160)
COMPINT	0.032	0.044	0.077	0.000	-0.013	-0.007
	(0.098)	(0.088)	(0.098)	(0.057)	(0.048)	(0.048)
Industry dummies	Included	Included	Included	Included	Included	Included
constant	0.661	-0.609	-0.732	-3.011***	-4.146***	-4.596***
	(1.701)	(1.452)	(1.773)	(0.841)	(0.918)	(0.875)
N	90	90	90	90	90	90
R-sq	0.448	0.551	0.445	-	-	-
Pseudo R-sq	-	-	-	0.165	0.202	0.190

Robust standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

APPENDIX

Table 1A. Italy's FDI positions[a] into China (millions of Euro, 1991-2011)

Year	1991	1992	1993	1994	1995-99	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Euro M	26	40	51	70	N.A.	1233	1175	1017	1061	1185	1547	1778	2714	4214	4253	6174	8319

[a] 'FDI positions' data indicate the levels of investment at a given point in time. Also referred to as 'FDI stocks'.
Source: OECD (https://stats.oecd.org/).

Table 2A. Questionnaire details for dependent variable and key independent variables
Question related to *institutional voids* in China:
Among the factors listed below, indicate the degree to which they have hampered the internationalization process of the firm in the Chinese market (based on a scale from 1 to 7, where 1=not at all, and 7=very much):

Institutional voids

- Lack of infrastructure to facilitate the relationship between the firm and its clients, or between the firm and its suppliers (e.g., inefficient transportation infrastructures and logistics)
- Difficulties in obtaining adequate and reliable information about the tastes and preferences of consumers, and the reliability of suppliers
- Difficulties in advertising and communicating effectively products and services to potential consumers
- Underdeveloped education infrastructures and the need for intensive training of Chinese employees
- Distrust and lack of acceptance toward foreign firms and foreign managers on the Chinese market
- Difficulties for foreign firms to access financial resources and loans
- Underdeveloped payment systems (e.g., the use of the credit card is uncommon among end users, prevalence of cash as payment method) and consequent difficulties in completing transactions
- Ambiguous legal system (e.g., in the field of contractual agreements, protection of copyright, trademark registration, joint ventures, foreign firms, land use rights, protection of private property rights, protection of private sector, etc.)
- Complicated or ambiguous bureaucratic procedures (e.g., for a firm registration, for the request of a permit, license, certification etc.)

Question related to the *entry mode degree of control* in China:
Indicate the ways in which the firm has operated on the Chinese market until now (check the appropriate boxes):

Entry modes

- Subsidiary on the Chinese market entirely controlled by the firm (entity resulting from the acquisition of an existing subject or from greenfield investment)
- Subsidiary on the Chinese market only partially controlled by the firm (entity resulting from partial acquisition or joint venture)
- Subsidiary on the Chinese market with which the firm has contractual relationships like franchising, licensing, or joint R&D
- Export (direct and/or indirect)

Question related to the *number of business functions located* in China:
Indicate the activities carried out directly (and therefore partially or wholly owned) by the firm in the Chinese market (check the appropriate boxes):

Location choices

- Research and development/innovation (e.g.: in the case the firm has a R&D lab in China)
- Production (e.g.: processing/assembling of raw materials and/or components directly on the Chinese market)
- Sale (e.g.: through its own sales force/agents in China)
- Distribution (e.g.: if the firm manages its own retail stores or distribution chain in China)
- Administrative support (e.g.: human resource management, legal and financial services)
- None (if the firm does not carry out directly any activity in China, e.g. only exports)

Figure 1A. Relationship between institutional voids and entry mode degree of control

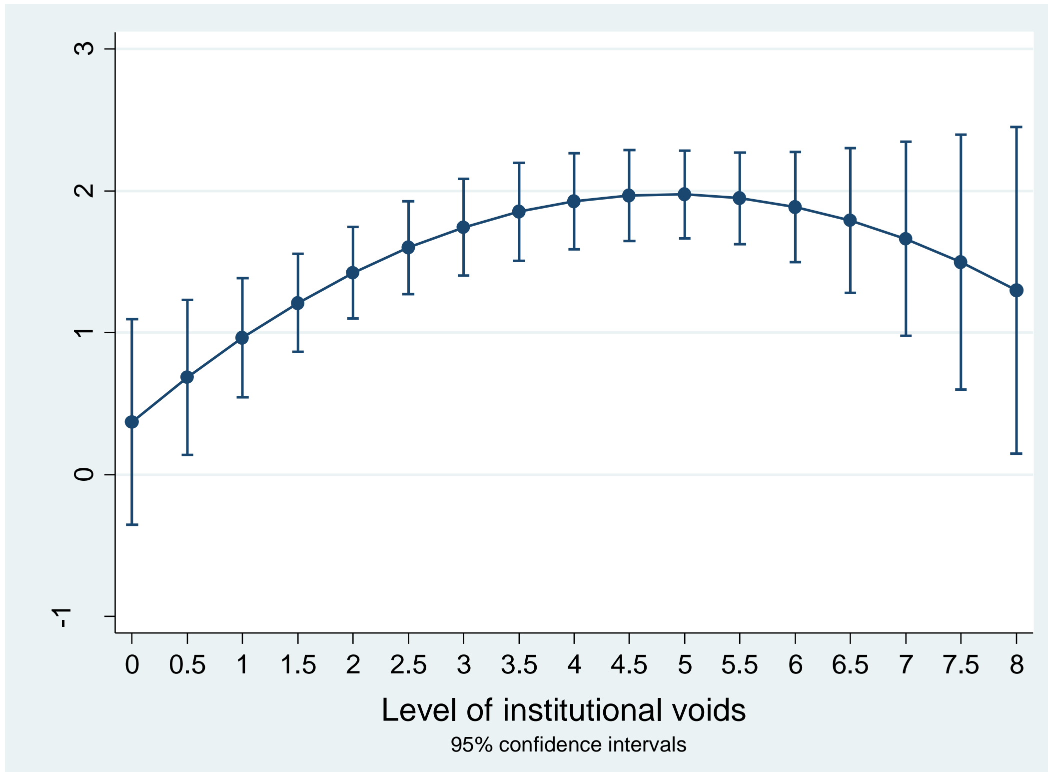
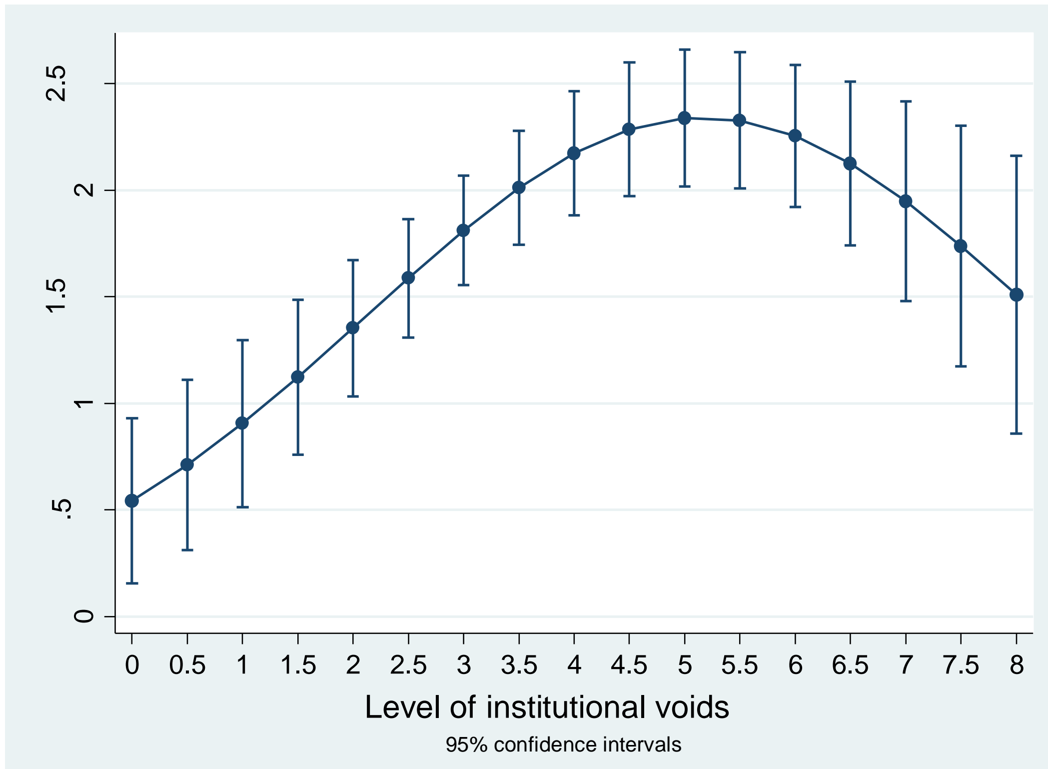


Figure 2A. Relationship between institutional voids and location of business functions in the host country



BUSINESS MODEL ADAPTATION TO INSTITUTIONAL VOIDS IN DEVELOPING COUNTRIES: THE CASE OF JUMIA, THE AMAZON.COM OF AFRICA***

Abstract

Business model adaptation to institutional voids in developing countries is critical for the survival of firms seeking to explore the opportunities in these markets. We examine the "process" a newly established developing country-based firm goes through to adapt a business model designed for developed countries to institutional voids in its local market. To do so, we draw on the case study of Jumia - an online retailing company in Africa established with the aim to mimic the success of Amazon.com across many African countries which in the early 2010s were characterized by little or no online shopping culture. We show that newly established developing country-based firms attempting to exploit in their local context the success of an established business model designed for developed economies, cannot simply replicate that model but have to adapt it with the aim of filling the various institutional voids peculiar to their home country. We find that the business model adaptation process involves four phases consisting of *clarification phase*, *legitimacy phase*, *localization phase* and *consolidation phase*. Throughout these phases, specific institutional voids are filled, and significant adjustments are made to various components of a firm's business model.

Keywords: business model adaptation, business model innovation, institutional voids, developing countries, Jumia.

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1. Introduction

> *"Replicating business models developed outside their borders —particularly in developed markets — is not a viable option for emerging market-based companies that seek to build competitive advantage [...] emerging market companies can adapt their offerings, processes, and organizations to institutional voids" (Khanna & Palepu, 2010: 42).*

> *"The normal Ghanaian community doesn't know about online shopping, the trust is something that is not there. [...] online shopping is something new for us and there are some challenges confronting its implementation. [...] some laws and regulations really don't work well in this part of the world. Jumia's business model is designed after that of Amazon. In fact, we have Amazon as our target so we try to do things as Amazon. However, the business environment and the challenges here do not allow us to fully operate Amazon's business model and therefore we have to modify a whole lot of things in order to fit this environment" (Deputy head of customer service —Jumia, 2016).*

Developing countries present not only growth prospects for an entrant firm but also operational challenges. In fact, unlike developed economies, which are characterized by well-developed market supporting institutions, developing countries are exemplified by weak institutional environments, creating what is termed *institutional voids* (Khanna & Palepu, 2010). These institutional voids include the absence of contract-enforcing mechanisms, specialized intermediaries, and efficient communication networks and transportation—all these hampers the ease with which buyers and sellers interact. Moreover, because of these voids, the needs and purchasing patterns of customers in developing countries are more often than not totally different from those of developed economies (George, Corbishley, Khayesi, Haas, & Tihanyi, 2016). This means that a product and profit formula that are successful in developed countries may not necessarily work in developing markets (Gao, Zuzul, Jones, & Khanna, 2017; Marquis & Raynard, 2015). In fact, various authors have recently noted that several developed country-based firms entering developing countries "have struggled not because they can't create viable offerings but because they get their business models wrong" (Eyring, Johnson, & Nair, 2011: 89). As a result, "being able to adapt business models to different institutional settings and

customer preferences are key capabilities required for firms seeking to benefit from doing business in emerging markets" (Landau, Karna, & Sailer, 2016: 481).

Although some studies have examined how the institutional environment can shape a firm's decision about how to set its business model (Dahan, Doh, Oetzel, & Yaziji, 2010; Dunford, Palmer, & Benveniste, 2010; Eyring, Johnson, & Nair, 2011; Khanna & Palepu, 2010; Landau et al., 2016), surprisingly, within the literature of business models, little is known about *how* newly established firms in developing countries surmount the challenges in their local markets to create business opportunities by leveraging business models of existing developed country-based firms. More specifically, we aim to answer the following research questions: Which "process" does a newly established developing country-based firm go through to adapt a business model designed for developed countries to institutional voids in its local market? Which components of the business model are modified during the adaptation process?

Our research is case-based, involving a case study analysis of Jumia—an online retailing firm established in Nigeria in 2012—with the aim to emulate the success of Amazon.com (an American company commonly known as Amazon) across several African countries, which, in the early 2010s were characterized by little or no online shopping culture. The focus of developing countries in Africa represents an interesting and relevant context for advancing our understanding of business model adaptation to institutional voids since firms in Africa face great challenges stemming from the persistence of institutional voids in their business environments. Also, there is a recent call to increase research in management scholarship about Africa (George, 2015; Mol, Stadler, & Ariño, 2017) since "Africa offers great potential as a context for management research, […] more empirical and conceptual work is warranted to explain the richness of the opportunities on the African continent" (George et al., 2016: 389).

Our data shows that a developing country-based firm, when developing its own business model, adapts business models designed for developed countries to its local context with the aim of filling various *infrastructural*, *legal and regulatory*, and *cognitive cultural* voids. The business model adaptation to these voids goes through four phases, and throughout these phases, significant adjustments and modifications are made to various components of the business model.

Our analysis and findings contribute to the business model and international management literature in the following ways. First, while much of the extant business model literature has focused on new ventures as followers, i.e. imitating business models previously developed by others (e.g. Casadesus-Masanell, & Zhu, 2013; Dunford et al., 2010), or disruptors, i.e. pioneering new business models (e.g. Foss & Saebi, 2017; Zott & Amit, 2007), there are no studies that look at new ventures that "adapt components of business models designed by other firms" to pioneer new industries and create new demand. Our study shows that Jumia is one of the principal agents that have pioneered the development of the e-commerce industry in African countries that had little or no online shopping culture by adapting several components of Amazon's business model to institutional voids.

Second, there is a dearth of research in both the business model and international management literature that specifically addresses the "process" (i.e. phases) that leads firms to adapt their business model to a foreign country environment (e.g. Dunford et al., 2010; Jonsson & Foss, 2011; Landau et al., 2016), and authors who have tackled this issue have only taken the perspectives of developed country-based firms that have extended their own business model to a new context. In this paper, we shed light on this "adaptation process" by taking an unexplored perspective, namely the one of a developing country-based firm (a Nigerian e-commerce new

venture in our case) adapting a business model designed for developed countries (i.e. Amazon e-commerce business model) to both its home country context, normally characterized by voids in market supporting institutions, and other (African) developing countries with similar voids. Our results show that Jumia's business model creation process went through four phases, each phase aimed at filling specific voids in the environment and leading to various adaptations of Amazon's business models to the African context. In this way, we respond to recent calls for the strategy and business model literature on "*how* are business models created in different contexts [and] what *institutional factors* favor or impede the *emergence* and success of business models?" (Demil, Lecocq, Ricart, & Zott, 2015: 8-9).

Third, since we conceptualize business model "adaptation" as a possible alternative to business model "imitation" (or "pure replication"), our study complements the literature on imitation of internationalization modes, which discusses performance outcomes and antecedents of a firm's decision to replicate or differentiate from the internationalization strategy of industry rivals (e.g. Oehme & Bort, 2015). For example, various studies in this literature have shown that, because of isomorphism or bandwagon effect, a firm's internationalization strategy will tend to resemble that of its rivals, market leaders in particular (e.g. Guillèn, 2002, 2003; Henisz & Delios, 2001; Oehme & Bort, 2015). In our study, we show that when it comes to business model development, in the presence of institutional challenges, adaptation, as opposed to mere imitation, happens.

Fourth, we respond to the call for more empirical work to explain the richness of the opportunities on the African continent (Mol et al., 2017), particularly in the e-commerce industry in Africa (Holm, Decreton, Nell, & Klopf, 2017), and address the challenges within them (George et al., 2016). Our results show how Jumia made various changes to Amazon's business

model to enter those African countries where the online shopping culture, until then, had been hindered by voids in the institutional environments.

2. Theoretical background

2.1.Business Model: Value-based and Activity System Perspectives

Over the last decade, the concept of a business model has gained considerable attention from both academics and practitioners as a relatively new construct and unit of analysis in the literature. Reviews of business model literature indicate that authors do not agree on the definition and constructs of the term business model and have frequently adopted idiosyncratic definitions that fit the purposes of their studies, consequently leading to a wide range of construct definitions (George & Bock, 2011; Klang, Wallnöfer, & Hacklin, 2014; Zott, Amit, & Massa, 2011). Amid the various perspectives in which business models have been represented in the existing literature, we adopt two commonly accepted conceptualizations to organize our analysis of the business model adaptation in developing countries: the *value-based* perspective (e.g. Casadesus-Masanell & Ricart, 2010; Teece, 2010) and the *activity system* perspective (e.g. Amit & Zott, 2001; Zott & Amit, 2010).

Authors of the value-based perspective focus on a componential approach to the study of business models and conceptualize business models to be made up of three "components": *value proposition* (i.e. the bundle of products and services that create value for a specific customer segment), *value creation and delivery* (i.e. the architecture of a firm value chain, namely a firm's key resources and activities necessary to create value, and the channels used to deliver this value), and *value capture* (i.e. a firm's revenue streams and cost structure). For example, Casadesus-Masanell and Ricart (2010:196) define business as "the logic of the firm, the way it operates and how it creates value for its stakeholders". According to Teece (2010), a business

model expresses the logic, the data and other evidence that sustains a given value proposition for the customer and a possible structure of revenues and costs for the firm delivering that value. In other words, it characterizes the manner by which the firm renders value to customers, persuades them to pay for value, and translates those payments to profit (Teece, 2010).

From a different view, authors of the activity system perspective (Amit & Zott, 2001; Zott & Amit, 2010) define business models by focusing on the *activities* carried out by a firm to create and deliver value, and how these activities are linked to each other. Activities refer to value chain activities performed by a focal firm, as well as how the focal firm's activities are linked to activities performed by other actors in its business environment (Baden-Fuller & Mangematin, 2013). The business model thus captures how the firm is embedded in its multiple networks with suppliers, partners and customers, and how the governance of value chain activities creates value through the exploitation of business opportunities (Zott & Amit, 2010). In synthesis, the activity system perspective defines a firm's business model focusing on the *content*, the *structure,* and the *governance* of activities with its organization.

These two perspectives of business model conceptualizations present different but complementary outlooks of business models (Landau et al., 2016). In the context of this paper, these perspectives afford us the opportunity to disintegrate the firm's operations into various business model *components* and analyze the distinctive operational *activities* carried out to respond to the institutional challenges in the business environment. While the value-based perspective enables us to conduct a broad general analysis of business model adaptation by focusing on the components of the business model modified and adjusted to respond to the institutional challenges, the activity system perspective allows us to focus in detail the specific

activities performed by the firm to create and deliver value. Consequently, using these perspectives collectively, we are able to address our research questions in full.

2.2.Business Model Adaptation: A Form of Business Model Innovation

The concept of *business model adaptation* is closely related to the fundamental *business model innovation* (Amit & Zott, 2012; Doz & Kosonen, 2010; Foss & Saebi, 2017; Gambardella & McGahan, 2010; Schneider & Spieth, 2013), which has become increasingly important both in academic literature and in practice due to the rising number of opportunities for business model configuration enabled by technological progress, new customer preferences, and deregulation (Casadesus-Masanell & Zhu, 2013). Business model innovation refers to "the search for new logics of the firm and new ways to create and capture value for its stakeholders" (Casadesus-Masanell & Zhu, 2013: 464). It centers mainly on devising new and innovative avenues for generating revenues and defining value propositions for customers, suppliers, and partners (e.g. Amit & Zott, 2001; Casadesus- Masanell & Ricart, 2010; Gambardella & McGahan, 2010; Magretta, 2002; Teece, 2010; Zott & Amit, 2008).

Business model adaptation, instead, has been defined as "a form of business model innovation that addresses the development of a business model to better fit a new context—[e.g.] a new international market" (Landau et al., 2016: 483). This implies that business model adaptation involves modifying and reconfiguring the components of existing business models in order to meet the challenges and demands of the new environment (Eyring et al., 2011).

While studies on fundamental business model innovation have emphasized the innovative capacity of new business models and their performance implications (Aspara, Hietanen, & Tikkanen, 2010; Foss & Saebi, 2017; Kim & Min 2015), far less attention has been given to how an existing business model is adapted to a new and specific context. This is evidenced by the

pressing calls for authors to (a) extend the analysis of business model innovation in different institutional environments (Demil et al., 2015; Foss & Saebi, 2017), and (b) increase research on adaptation of business models in different geographic countries (Jonsson & Foss, 2011).

2.3.Institutional Voids in Developing Countries

Khanna and Palepu, (2010: 54) describe institutions as "intermediaries [or] economic entities that insert themselves between a potential buyer and seller to bring these actors together and reduce transaction costs". If these institutions are weak or absent in the market then, *institutional voids* are said to exist (Khanna & Palepu, 2010). Unlike developing countries, developed economies have well-established institutions that intermediate between buyers and sellers of goods, services, and capital to reduce the transaction costs and limit potential conflicts of interest that arise from differential information between buyers and sellers. For example, the courts and consumer groups ensure that contracts are enforced and that defaulters are penalized; producers of low-quality products suffer dearly as consumers have the right to return the product and recover their outlay; credit card issuers are available to facilitate transactions by providing credit verification, financing, and collection of cash; there are insurance agencies to provide valuable services between sellers and buyers to facilitate safe, timely, and guaranteed movement of products; and the distribution system can count on a reliable network of physical infrastructures. In contrast, these institutions are particularly absent or deficient in developing countries. Institutional voids severely hamper firms' ability to successfully operate in these markets by hindering transactions and increasing the cost of performing transactions.

The extant strategy literature that has tackled the issue of institutional voids has extensively examined the relationship between the strength of market-supporting institutions in a country and firm outcome in that country (Gao et al., 2017). Scholars have shown that strategies

are strongly affected by the firm's institutional environments (e.g. Ahuja & Yayavaram, 2011; Meyer, Estrin, Bhaumik, & Peng, 2009; Peng, Sun, Pinkham, & Chen, 2009) and that a firm's chance to achieve competitive advantage depends on its ability to understand the voids in its institutional environment and turn them into opportunities (Marquis & Raynard, 2015). This has been documented also in e-commerce industries (Holm et al., 2017; Oxley & Yeung, 2001).

Still, although various studies have examined how institutional voids may shape a firm's strategy and performance, there is a shortage of studies that bridge the institutional void literature with the business model literature. Most studies focus on how institutional voids affect a firm's strategy, but not its entire business model. Research of this type is needed to better understand the "systematic process for reconceiving the business model" (Eyring et al., 2011: 89-90) that firms operating in developing countries should follow in order to overcome the challenges associated with the absence of effective market-supporting institutions.

3. Research method

To address our research questions, we adopted a qualitative approach in the form of a single case study (Eisenhardt, 1989; Yin, 1994). This research design, previously used by "process studies" both in the business model and international management literature (e.g. Dunford et al., 2010; Jonsson & Foss, 2011), is suited for a context-specific understanding of organizational reality and suited to the exploration of processual nature of organizational dynamics.

3.1.Research Setting

The empirical context of the study is Jumia, an e-commerce startup headquartered in Lagos, Nigeria, with an aim to emulate Amazon's success by delivering a wide range of items across many African countries, from furniture, clothes, electronics, and books to alcohol. Jumia

is a start-up internal to Africa Internet Group (AIG), a leading e-commerce group in Africa with Rocket Internet, MTN Telecommunications, Millicom, Orange, Axa, and Goldman Sachs as investors. Shortly after its incorporation in Nigeria in 2012 by two African Harvard Business School graduates (one from Nigeria and the other one from Ghana) with seed capital and technical support from Berlin-based incubator Rocket Internet (Kay, Spillane, & Kew, 2013; Troianovski, 2014), as of the beginning of 2017, had a revenue of nearly €250 million and operated in 11 different countries in Africa, creating a sustainable ecosystem of digital services and infrastructure through online and mobile marketplace after combating the initial challenges of trust, acceptability, and infrastructural gap relating to e-commerce in Africa. The fast expansion of Jumia's operation in Africa is necessitated by the opportunities inherent in the institutional challenges and the high population growth characterized by an expanding middle class in Africa, as shared by former CEO of Rocket Internet in an interview with Reuters in 2013:

> There is very much a demand from the growing middle class to have quality products both in beauty and in fashion that is currently not met in the Nigerian market or in many other African countries, […] that means that either they buy things abroad or have other people ship the product in, which is obviously very time-consuming, expensive and tedious (Grant, 2013).

It is worth noting that at the time Jumia set up its operations in Nigeria in 2012, African countries were experiencing different levels of development in terms of retailing (Moriarty, van Dijk, Warschun, Prinsloo, Savona, & Witjes, 2015)[6], and Jumia was not the first company to launch an online retailing business in Africa. For example, before Jumia's entry into Africa, other online retailers were operating in few 'advanced' African countries, like Kalahari.com (which recently merged with Takealot.com) in South Africa. Kalahari.com has been operating an

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[6] Moriarty et al. (2015) categorized retailing markets in Africa into three main developmental stages. *Basic stage*: characterized by little to no formal shopping culture and the formal market that does exist focuses almost solely on dry goods. *Developing stage*: the market shows a small but emerging formal shopping culture, not fully developed. *Matured stage*: countries in this stage show well-established online shopping culture, relatively high wealth levels and developed infrastructural support. Jumia operates in countries that fall into the first two categories.

e-commerce business model somewhat very similar to that of Amazon with essentially no significant changes for over ten years. This business initiative survived in South Africa with expected success, but was circumscribed only to customers in South Africa because the South African business environment has well-advanced online shopping culture, relatively high wealth levels, and, to some extent, well-established infrastructure and effective laws and regulations (Moriarty et al., 2015). These "advanced" African countries were not Jumia's target markets. In fact, Jumia aimed at entering African countries that, at the beginning of the 2010s, presented no or little online shopping culture, including Nigeria, Ghana, Kenya, and Morocco. For example, as noted by Jumia Kenya managing director in an interview with KBC News in 2014:

> In the online space, there is no competition. There is really no e-retailer currently in Kenya. Instead, when you look at the brick-and-mortar space, sure there is retail environment here, but what they don't provide to the customer is "convenience", so you have to fight through traffic.

The absence of e-commerce firms with their physical operations in these countries was caused by a number of voids in their institutional environments. Jumia wanted to turn these voids into opportunities.

Amazon, an example to Jumia, serves the mass market in developed economies with a wide selection of products at low prices through an easy-to-use online platform. The US giant reaches customers through its website via the internet, an online marketplace where buyers can make safe credit card transactions. While Jumia's business model was modeled after Amazon, Jumia has demonstrated that the concept of e-commerce is possible in Africa despite the numerous challenges that impede the growth of e-commerce in various countries. On the one hand, the rapid growth of many African economies, coupled with a fast-growing middle class, created a perfect opportunity for e-commerce business. On the other hand, various African countries have significant infrastructure deficits, lack of e-retailing culture and trust in e-commerce, all these factors challenge the establishment of an Amazon-like e-commerce business

model. This resulted in a situation where there is a growing demand for products, but online supply is significantly limited, forcing consumers to look beyond the African continent. Institutional voids in Africa were the drivers for Jumia to pursue a technology solution to improve the shopping experience and tap into the growing African market.

3.2.Data Collection

In conducting our study, we relied on multiple means for collecting our data: (1) participant observation, (2) semi-structured, one-on-one interviews, and (3) written documentation. We relied on the interviews as the prime source of information on the business model adaptation process, with the participant observation and documentation data serving as vital triangulation and supplementary sources for discerning and understanding events and processes, and as a means of gaining additional perspectives on key issues.

Most of the fieldwork was carried out in two subsidiaries of the company: Jumia Nigeria based in Lagos, and Jumia Ghana based in Accra. We choose these two subsidiaries as the main sources of our primary data for the following reasons. First, the two subsidiaries are of a different age: Jumia was established in 2012 in Nigeria, and Nigeria is the largest market for Jumia; Jumia Ghana is instead a younger subsidiary, established in 2014. This allows us to examine the same issue but in different countries, noting how the date of implementation (2012 and 2014) affected the start-up's experience despite the commonality of both countries having little online shopping culture. Second, examining business model adaptation in different countries we checked for possible relevant differences in institutional voids across countries. Although from the interviews we understood that the two countries obviously present some differences, we observed that Jumia encountered more or less the same institutional voids and adopted the same strategies to fill them. Finally, it is worth noting that, although all our informants were interviewed in Nigeria

and Ghana, few of them were based there, but were temporarily in those subsidiaries for control purposes. More specifically, these managers also oversee operations in other countries. Interviewing these people allowed us to have a broader perspective of Jumia's adaptation process in Africa. Table 1 provides details of the data sources, data type, the respective timelines for collection, and how the data was used in the analysis.

3.2.1. Participant observation

The first author initially spent six months as an intern in the company's subsidiaries in Ghana and Nigeria. From January to March 2016, he was in Ghana and then moved to Nigeria from April to June 2016 where he was partially a participant and partially an observer. He was there five days per week, normally between 9 am to 5 pm. He was given full access to the company and participated in various meetings such as team meetings and town hall meetings where all employees meet management of the subsidiary once a month to discuss the performance of the subsidiary for the past month and moving forward. During this internship period, the first author spent time in different parts of the company and with different teams undertaking various activities which gave us a deeper insight into the company's core issues and challenges. For instance, in Ghana, he spearheaded a project team mandated to establish a 'pick-up/drop-off' station in a suburb of Accra. Also, he spent a lot of time with hub managers to understand their respective strategies for adapting to specific challenges stemming from their operations. In addition, informal encounters such as lunch, chance meetings, and other forms of conversation were important sources of data. Throughout this period, he took extensive notes on key processes, activities, events, interactions and new developments in the company. The data gathered through the observation contributed significantly in designing the interview protocols

and triangulation of the responses from the interviews. Also, the observation enabled us to identify key informants within the company for the interviews.

3.2.2. Semi-structured interviews

After about two months of developing a collegial relationship in each subsidiary during the internship period, the author built trusting rapport with the employees of the company which opened the door for the informants to respond affirmatively to the interview request. The participant observer conducted all interviews to maintain consistency in data gathering, and all interviews were conducted at the informants' offices. During the internship, a total of 27 formal and five informal interviews were conducted with employees from different hierarchical levels selected to ensure exposure to different perspectives, to compensate for individual informants' personal bias and lack of knowledge, and to allow cross-checking of information provided by different informants (Huber & Power, 1985; Miller, Cardinal, & Glick, 1997). From November 2016 to February 2017 the first author spent an additional four months in Africa, between Ghana and Nigeria, to meet again Jumia's employees and discuss the research further. During this follow-up period, a total of 11 in-depth formal interviews were conducted to enhance our understanding of the emerging theory of business model adaptation process. Throughout the whole research period (January 2016 – February 2017), the 38 formal interviews followed an open-ended, semi-structured protocol, which allowed for successive refinement and inclusion of additional questions prompted by previous interviews. They lasted between 18 and 60 minutes, producing a total of about 25 hours of interview time. All the interviews were audio-recorded and later transcribed verbatim yielding about 260 pages of data. The interviews began with background information about the interviewees regarding their roles and experience. They were then asked open-ended questions to identify the various institutional voids in the e-commerce

business environment and subsequently, how Jumia adapts to them. The interviewees were further asked questions concerning various components of the firm business models and how each of these components has changed over the years in order to overcome the institutional voids in Jumia's business environment. Table 2 offers more details about our informants. As can be observed, each formal interview was coded to preserve the anonymity of the quotations that we will report later in the text. As for the five informal interviews, they were not recorded and were conducted by the first author with some of the informants in Table 2, mainly during internship job activities. The informants allowed the first author to take handwritten notes while discussing issues related to the research.

3.2.3. Documentation data

We relied on a significant number of secondary data including website information about the company; presentations and documents for training employees; news articles from business-oriented media like BBC, The Wall Street Journal, Financial Times, Reuters, and Bloomberg; videos of interviews (retrieved from the company Website and online business-related media) and commercials; press releases and newsletters. As for the video interviews, eight were retrieved (recorded by third-parties from 2013 to 2016), transcribed verbatim and coded, as reported in Table 2. Furthermore, we gained access to general internal communications regarding promotions, and changes in operational processes within the company. Not only did these documentations provide a secondary data source about the company's identity and its business operations, but they also proved helpful as a tool for validating and cross-checking both the interview and observation data of how the firm's business operations have changed over time to counteract the demands of the institutional environment.

Please insert Table 1 and 2 around here

3.3.Data Analysis

3.3.1. Phase 1 – Institutional voids identification

The data analysis proceeded in three consecutive phases. The first phase aimed at identifying the institutional voids encountered by Jumia in Africa, especially Ghana and Nigeria, since its inception in 2012. This preliminary phase consisted of multiple rounds of coding of our data to search for macro-categories of institutional voids that our informants gave through accounts of the events they described (Stake, 1995). We initially extracted a list of institutional voids encountered by Jumia from interviews. From this list, we then obtained three macro-categories: (1) infrastructural, (2) legal and regulatory, and (3) cognitive cultural voids, as illustrated in Table 3, and which is discussed in detail in the findings sections. The two authors proceeded with the data analysis in parallel. Individual check-coding of previously coded text and periodic comparison between the two researchers were used to assess the reliability of coding and ensure internal consistency of the emerging coding structure (Locke, 2001; Miles & Huberman, 1994). Additional interviews from later data collection helped us extend and revise preliminary interpretations. We also routinely checked emerging interpretations with our contacts at Jumia (Strauss & Corbin, 1998).

Throughout this phase, we refined and strengthened our emerging interpretations by means of triangulation with other sources and comparisons of informants (Yin, 1994). In particular, both internal and external archival sources were particularly important for confirming ("triangulating") informants' visions of how the company was able or unable to fill the institutional voids in the African environment. Moreover, observation and informal conversations complemented interviews, giving us additional insight into how people

experienced institutional voids in their daily routines, and how Jumia was able or was attempting to fill them.

3.3.2. Phase 2 – Analysis of strategies pursued by Jumia to fill institutional voids

The second phase of data analysis was aimed at understanding the strategies pursued by Jumia to fill each of the institutional voids presented in the previous phase. Examining Jumia's strategies before examining Jumia's business model was a logical process because a firm's new business model is the reflection of the set of strategies the firm carried out to obtain that business model (Casadesus-Masanell & Ricart, 2010). Similar to phase 1, we performed multiple rounds of coding of our data to search for how Jumia strategically responded to voids in the African environment. More specifically, we combined archival and interview data to identify important strategies that helped Jumia to fill the voids in the African market. At this stage, data collection was still underway so we could go back to informants as needed in order to sharpen our analysis. For example, we explicitly asked some of our informants the time when strategies pursued to fill institutional voids were implemented to understand how the company responded to obstacles in the environment over time. This step allowed us to link the specific strategies pursued by Jumia to how the voids facing its operations were surmounted. As we simultaneously explored the strategy pursued by Jumia to fill all the voids identified in the previous phase, we began to notice patterns between changes that were used in the next (third) phase to examine the adaptation process. Table 4 summarizes the output of this phase and is examined in detail in the findings section.

3.3.3. Phase 3 – Analysis of the business model adaptation process

The third phase of data analysis was aimed at understanding Jumia's business model, which resulted from strategies examined in data analysis phase 2, and in particular, Jumia's business

model adaptation process, i.e. how over time Jumia adapted the Amazon-like business model to its local environment in order to contend with the absence of market-supporting institutions. In other words, after identifying the institutional voids encountered by Jumia in Africa (data analysis phase 1) and the strategies used to fill these voids (data analysis phase 2), we examined whether and how these strategies were pursued in logical and longitudinal sequence to understand the process Jumia went through to develop a business model that was an adaptation of that of Amazon to the African market. To do this, we first grouped adaptation strategies in macro-categories, "aggregate dimensions" (Figure 1), and subsequently, we tried to understand when and why these strategies were implemented to make Jumia's business model work in the African market (Table 5).

Data analysis combined established methodology for single case study analysis (Yin, 1994) and grounded-theory building (Locke, 2001), and proceeded in an iterative fashion. We studied, organized, and analyzed all the data sources through the lens of the value-based perspective (Casadesus-Masanell & Ricart, 2010; Teece, 2010) as well as the activity system-based description (Amit & Zott, 2001; Zott & Amit, 2010) of business models to understand the components of the business model that were adapted to match the demands of the institutional environment and the extent to which the business model components were modified. We cycled between our data, emerging themes, and appropriate literature to develop a deeper understanding of the dynamics of the business model adaptation process as it transpired.

First, we carried out a first-order analysis (Gioia & Thomas, 1996; Van Maanen & Schein, 1979), which involves a thorough coding of the interview transcripts and data from the secondary sources to develop first-order codes (Figure 1). For example, managers often referred to "the activities of sales agents (J-force)" to describe one of the major means of introducing

Jumia's business model to consumers. We applied these codes, which were mainly based on the language of informants and their own vocabularies, to our entire database (paying particular attention to nestings and overlaps) and combined them into informant-centric or first-order concepts. By means of the frequent comparative method, we constantly compared data across informants to understand how these concepts related to similar ideas or relationships.

Second, the first-order concepts assisted us with unveiling important elements of the informants' meaning of business model adaptation process, but not the deeper patterns or relationships in the data. In order to discern themes that might form the foundation for developing a deeper understanding of our theoretical argument, we used a more structured second-order analysis to examine the data at a higher level of theoretical abstraction (Gioia et al., 1994). Again, we relied on constant comparison to aid in discerning second order themes that subsumed the first-order concepts. For example, "Building trust" emerged from various first-order codes connoting the concept of trust building in the business model adaptation process.

Finally, we amassed our second-order themes into aggregate dimensions which involved a simple task of examining the relationships among first-order concepts and second-order themes that could be captured into a set of more simplified, complementary groupings. In the end, we consolidated the themes into broader dimensions of analysis that captured the overarching process of business model adaptation in developing countries. We ensured the reliability of our analysis through individual check-coding of previously coded text and periodic comparison to guarantee consistency of the emerging results (Miles & Huberman, 1994). The final data structure is illustrated in Figure 1, which summarizes the second-order themes on which we built our theoretical argument of business model adaptation. Table 5 describes the business model adaptation process. Both Figure 1 and Table 5 will be examined in the findings section.

4. Findings

In this section, we describe the theoretical framework that emerged from our data. We examine the unique institutional voids in Jumia's business environment and the specific strategies pursued by Jumia to adapt an e-commerce Amazon-like business model to overcome voids in the African market. Finally, we describe the process by which the Amazon-like business model is adapted to the African market.

4.1.Amazon Business Model, A Reference Target for Jumia

Before examining the output of the three data analysis phases, we present a brief description of Amazon business model. Amazon is the largest internet-based retailer in the world by total sales and market capitalization. Its strategy has always been to serve the mass market in developed economies (with the exception of China, India, and Mexico), where consumers have access to the internet and online payments are well diffused, with a wide selection of products at low prices (Louie & Rayport, 1998). It offers customers a high-quality shopping experience through a user-friendly online platform and efficient delivery services. Amazon reaches customers through its website (and affiliates' websites) and relates to customers through a self-service and automated service via its website. Products are stocked both in Amazon warehouses and in warehouses of affiliated independent sellers, but are not delivered to customers directly by Amazon; instead, Amazon relies on third-party logistics firms and local postal delivery services. Amazon generates revenues through retail sales and commission on retail sales captured through well-regulated and developed online payment system infrastructure (Cot & Palepu, 2001). The main cost components stem from warehouses and delivery management, marketing activities, and the development and maintenance of its online platform. Amazon sells at low price points because of its ability to rely on economies of scale. Its key activities focus on order delivery and

fulfillment through a network of partners and IT infrastructure development (Applegate & Collura, 2002). Our data shows that Jumia used Amazon.com as its reference target, but precise replication of the Amazon business model across the African continent was not possible for various reasons, which we explain in the following subsection.

4.2.Institutional Voids Encountered by Jumia in Africa

In developed markets, in the early 2010s, Amazon operated an e-commerce business model and sell a significant number of products and services to an established, stable customer segment within a developed institutional context, which allows for efficient transactions and provides external transaction partners to support value creation and delivery. These institutions allow Amazon to efficiently connect with a network of sellers and manufacturers as well as third-party logistics and delivery companies to deliver products and services to consumers. Effective regulations in developed economies coupled with well-developed payment infrastructure, for instance, grant consumers the opportunity to conveniently make online payments for their purchased goods and services. The high literacy rate in information technology together with high internet penetration in developed markets creates conducive business environments for e-commerce firms like Amazon and its partners to create and deliver value to consumers.

In contrast, the distinctive features and the nature of the institutional environment in developing economies, such as in many African countries, create a daunting challenge in transferring a business model designed for a developed economy into the developing markets, as in the case of Jumia. Our analysis indicates that the business environment of Jumia across Africa in the first half of the 2010s was flooded with various institutional challenges, ranging from a significant deficit in infrastructure and regulatory inefficiencies to cultural challenges. We classified these institutional challenges as *infrastructural voids*, emanating from the lack or

absence of effective infrastructural support to establish market transaction, *legal and regulatory voids*, emanating from the absence of an effective regulatory system on which firms depend to establish market transactions, and *cognitive cultural voids*, emanating from the belief systems of the people and referring to a set of negative perceptions the people in a country have about online transactions. Following earlier work that derived a process model from a rich, study analysis (e.g. Sutton & Hargadon, 1996), we developed a detailed overview of how the macro-categories of institutional voids were grounded in evidence from in-depth interviews. Table 3 presents institutional voids extracted from illustrative quotes taken from interviews with our informants in Jumia. Below we discuss the three categories of voids and report additional interview quotes, other than those presented in Table 3.

The *infrastructural voids* that Jumia had to address in order to operate its business model in Africa include transportation problems in the form of bad roads and high traffic intensity, poor physical address systems, telecommunication problems, unstable electricity supply, and internet connectivity-related issues, as expressed by one of the managers in an interview quote below:

> There are still a lot of infrastructural challenges in Nigeria [...] that we have to tackle every day. So there are bad roads, there is intense traffic on the roads, we have buildings with no addresses so that you can't really pinpoint the address, telecommunication is really poor and even internet penetration is really poor so there are these challenges that we have to overcome to work as a business. [...], so these are kind of issues we grapple with and we've put in solutions to tackle them (Head of third-party logistics operation, J14A).

We thus understood that the e-commerce business environment in Africa lacks external business partners who provide intermediary services to facilitate transactions. These include manufacturers and/or suppliers of high-quality products and services, reliable postal delivery services, and logistics providers to guarantee just-in-time operations and delivery. All these institutional voids make it impossible for Jumia to operate Amazon's business model in Africa without making business model adaptations.

Moreover, we found that since e-commerce is relatively new in developing African countries, the business environment of Jumia suffers from effective and efficient regulation to support market transactions, creating what we termed *legal and regulatory voids*, as indicated by a managing director of Jumia in an interview:

> Like you know e-commerce is very new in these countries so the loose regulations regarding e-commerce are often quite undefined (Managing Director of New Countries, J10).

Jumia combated the legal and regulatory voids of complicated bureaucratic procedures to acquire licenses and certificates, fake currency, fake and imitated products, and others.

Further contributing to these institutional challenges in Africa is the issue of trust. A majority of Africans hold the belief that the 'place' for shopping is a physical brick-and-mortar shop and compounding this is a high incidence of internet frauds and scams across many African countries. These have created a complete lack of trust in e-commerce business among consumers (and also sellers) across the African continent such that they are reluctant to accept and participate in e-commerce transactions, creating what we termed as *cognitive cultural voids*—an obstacle that e-commerce companies in Africa need to overcome in order to survive, as pointed out by an informant in an interview:

> You have to get people who have never shopped online before, like most people in Africa, to trust you enough, to trust your process enough that they will actually buy things online. People have this fear of e-commerce. There have been so many scams in the past [...] the main challenge is to convince and educate a Jumia customer that this is not a scam (Founder and managing director, J28A).

This analysis of the institutional voids that Jumia encountered when launching its e-commerce service in Africa helped us to understand why a pure replication of an Amazon-like business model was not possible in such environment.

Please insert Table 3 around here

4.3.Strategies Pursued by Jumia to Fill the Institutional Voids in Africa

In an attempt to fill the institutional voids in African countries with no or little online shopping culture, Jumia employed innovative strategies to adapt the Amazon business model to the African context. Table 4 shows the various institutional voids in Jumia's business environment (obtained from Table 3) and the specific strategies designed to overcome the voids extracted from illustrative quotes.

Jumia responded to the infrastructural voids in the business environment by employing various strategies. First, to respond to the void of unstable electricity supply in its business environments, Jumia invested in generator plants to provide an uninterrupted power supply. Second, Jumia overcame the void of bad roads and transportation problems by setting up pick-up stations close to customers and also by relying on third-party logistics firms to support its delivery activities. Third, to address the void of poor physical address systems across many countries in Africa, Jumia extensively made use of landmarks in addition to constant communication through a phone call to trace and locate houses with no address to deliver the orders. Also, the use of indigenes as delivery associates facilitates the tracing of houses with no addresses. Again, Jumia employed various approaches to tackle the voids of poor internet connectivity, low internet penetration, and poor telecommunication services challenging business growth across the African continent. For instance, Jumia relied on sales agents equipped with tablet computers to assist customers in rural areas with no access to internet to place orders. Similarly, customers without internet access can call Jumia's customer service team for an order to be placed for them. In addition, Jumia partnered with one of its investors, MTN Telecommunication, to provide free internet access for customers (with an MTN mobile number) to browse on Jumia's website to place an order. Yet again, to overcome the void of high traffic

intensity across many cities in Africa, Jumia relies on the use of motorbikes and tricycles to deliver orders in a reasonable amount of time, and also, most logistical operations are carried out during off-traffic hours (such as early mornings and nights). Regarding the issue of an underdeveloped payment system inhibiting transactions in many African countries, Jumia introduced cash-on-delivery and mobile money payment systems to facilitate payments.[7] To address the challenge of lack of reliable data about customers and suppliers, Jumia has developed its own database of customers and suppliers to substitute the lack of reliable market research firms to provide reliable market information.

As for the legal and regulatory voids that Jumia encountered in the African market, various strategies were employed to adapt the Amazon-like business model to its local business environment. First, the complicated bureaucratic procedures to acquire licenses and certificates were overcome by relying on its mother company to secure the required license. Second, Jumia used an "open contract or agreement system"[8] to attract suppliers who prefer flexible short-term relationships to address ambiguous and inefficient legal systems regarding contracts. Third, the voids regarding fake and imitation products were addressed by having multiple suppliers and by removing sellers with fake products from the platform. Regarding the issue of high corruption, sometimes the only way Jumia could carry out its operations was to make payments to the authorities to get the work done. Again, the voids of insecurity and criminality were tackled by educating personnel on how to cope with dangerous situations.

Finally, Jumia employed various strategies to reply to the cognitive cultural voids stemming from the lack of trust in e-commerce due to the high incidence of fraud and scams and

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[7] Cash-on-delivery payment system is where customers pay in cash at the point of delivery. Mobile money payment is a payment system provided by mobile phone service providers where subscribers can make a payment through their mobile telephone account.

[8] Open contract or agreement system is a system where there is no legal binding agreement; each party can decide to opt out of the contract agreement at any anytime at no cost.

customers' lack of experience in e-commerce across many African countries. First, the introduction of the cash-on-delivery payment system serves as a guarantee to the customer since payments are only made after the products are received and examined. Second, Jumia offered the customer opportunity to return products for their money back. Third, Jumia constantly communicates with the customers throughout the delivery process to keep them informed about their orders. Again, another strategy of Jumia in dealing with the lack of trust in e-commerce was to partner with well-known leading brands and firms to deliver quality products and reliable service to customers. Also, Jumia relied on a massive advertisement, sales agents, and technical assistance on how to use delivered products in order to educate customers and increase brand loyalty.

Please insert Table 4 around here

4.4.Jumia's Business Model Adaptation Process

After identifying the institutional voids encountered by Jumia in Africa (data analysis phase 1) and the strategies used by the firm to fill these voids (data analysis phase 2), we examined whether and how these strategies were pursued in logical and longitudinal sequence and the business model that resulted from these strategies. Using the value-based perspective and the activity system description of business models to analyze the adaptation of Jumia's business model in Africa, we identified four phases of business model adaptation: *clarification phase*, *legitimacy phase*, *localization phase,* and *consolidation phase* (Figure 1). Our understanding of the data showed that these phases occurred sequentially, with each phase responding to the specific type of void challenging the firm's operation at that particular moment. In what follows, we develop a process model based on a series of propositions, illustrated with interview quotes.

Figure 1 shows the data structure for the adaptation strategies carried out in the business model adaptation process and Table 5 describes Jumia's detailed business model adaptation process using the lens of the value-based and activity system description of business models. Finally, Figure 2 illustrates the process model of business model adaptation derived from propositions.

4.4.1. Clarification phase

This is the first phase of the business model adaptation process. It is aimed at establishing the core business model elements to ascertain their viability in the local context. This initial "clarification" phase involves the production of a clearer sense of the fundamental elements that underpin the business model and their preliminary testing in the local market. The challenge in 2012 for the nascent Jumia Nigeria was to test the potential of an unexplored e-commerce business model in Nigeria as an informant expressed in the quote below:

> In the very beginning of our operation in Nigeria, we were not sure whether the e-commerce concept will work in Nigeria[...] so we decided to initially do what I'll call 'the test case' where all our initial basic operations were basically directed toward knowing the reactions of the market (Head of third-party logistics operation, J14B).

Although the funding to test the concept was provided by Rocket Internet, which later became the parent company, Jumia began as a classic start-up: a handful of people in fairly basic office facilities in a part of Lagos in Nigeria. As explained by a manager in an interview, initially the company did not have a warehouse, and it stocked products bought up-front from independent sellers in a small apartment in Lagos:

> When Jumia started, it was called KASOA and we operated from a rented apartment of about five rooms in Lagos. All our activities were carried out from that apartment. But as the business grew, we expanded by owning many separate offices and warehouses all over the country to help us serve our customers better (Hub manager, J22).

The clarification phase in the case of Jumia meant adapting those components of Amazon's business model necessary to fill the initial institutional voids to make the business model work, at least on a small scale. At this point, the key institutional voids that needed to be

filled were basic infrastructural voids in the African market that were required for testing the essential element of the business model. More specifically, while in developed countries, Amazon could count on a target market of PC and internet literate people, reliable physical distribution systems, and a wide population of sellers willing to sell on its platform: (a) most of consumers in Nigeria did not have or were not familiar with the technology to make online transactions (i.e. PC, internet, credit card), (b) local transportation systems were unreliable in many areas, and (c) its brand was totally unknown to sellers. Consequently, Jumia focused on three things (Figure 1): (1) it employed the use of cash-on-delivery payment to compensate for the poorly diffused credit card usage, the lack of developed banking systems offering alternative payment methods to cash, and skepticism about online transactions; (2) it acquired its own fleet of vehicles to deliver items effectively in urban areas in order to respond to the unreliable postal delivery system; and (3) it employed a "consignment model" (as opposed to the "marketplace model" used by Amazon)[9] to address the challenge of unreliable sellers. As summarized by one of our informants:

> So initially, […] before we assumed full operation in Nigeria, […] we needed to set up our own basic infrastructure and systems in order to test whether the online shopping concept will work. For example, we invested in building our own delivery systems by acquiring motorbikes and minivans for delivery. So basically before we started mass operation a whole lot of underground work took place which was directed towards assessing the viability of online shopping concept in Nigeria (Head of logistics operations, J23B).

We thus propose that in this initial stage of the business model adaptation process, the goal for the developing country-based new venture was testing ("clarifying") the core elements that would make the business model work. This is likely to result in the adaptation of various

[9] The consignment model is when the company personally takes delivery of various products that it previously purchased from independent sellers. Independent sellers are not displayed on the company website; their products are stocked by the company in its warehouses, and are delivered to the customer when s/he places the order. In contrast, the "market place model" describes a situation where the company invites individual sellers to display and sell on the online platform. In this case the products are either kept at the sellers' store (and are picked from the sellers anytime there is an order) or in the company's warehouse for prompt delivery.

business model components (Table 5). The starting point that was driving the changes in all the business model elements was the specific *customer segment* that Jumia initially wanted to reach: i.e. buyers in urban areas of African countries that have little online shopping culture, who have PC and internet connection, but who are skeptical about conducting online transactions (Table 5). From here Jumia made strong adaptations to all components related to the *value creation and delivery* components of their business model. For example, contrary to Amazon, which relies on third-party logistics partners, one of Jumia's main *resources* was its own fleet of vehicles and delivery associates. Moreover, since initially there were no sellers willing to collaborate, and to ensure full control of high-quality service, most *activities* were carried in-house, like the "cash-on-delivery" and the purchasing of goods up-front from independent sellers. Therefore, contrary to Amazon, Jumia's *distribution channels* and *customer relationships* entailed direct relationships between the firm and its customers, without the aid of intermediaries. As a consequence, the *value capture* components were also adapted: contrarily to Amazon, Jumia's *revenue streams* consisted only of retail sales, no fees existed for delivery services because no partnership with sellers was established; the *cost structure* presented a stronger focus on fixed costs because the need to test core business model components in an unknown business environment forced Jumia to acquire its own fleet of vehicles and create inventory by purchasing goods up-front from sellers, making the expenses unrelated to volumes sold. We summarize this idea with the following proposition:

> Proposition 1: *Newly established firms in developing countries adapt business models designed for developed markets to institutional voids in their local context initially with the aim of clarifying (testing) the core elements that will underpin the business model.*

4.4.2. Legitimacy phase

The legitimacy phase is the second phase of the business model adaptation process and it is aimed at establishing the firm's presence among customers and sellers, in order to gain recognition and legitimacy that the firm and its offerings are authentic. This phase is important for filling cognitive cultural voids that otherwise will not allow the start-up to scale up. For instance, this is the phase where Jumia changed the *value proposition* slightly to include, among buyers only in urban areas, both those that have PC and the internet, and those who have no PC and are internet illiterate. The company realized that to serve this latter type of customer, it had to educate them, and it had to think about alternative ways to reach them other than via the company's website. Again, the newness of the concept of e-commerce on the African continent created its own trust related issues, i.e. the lack of reliable e-commerce firms resulted in a strong skepticism toward online transactions. These diverse challenges in the African business environment placed a demand on Jumia to gain legitimacy before rolling out its full business operation, as established in an interview by a manager.

> When we got the green light from the initial test activities that shopping online was possible in Nigeria, we now had to demonstrate it to generate the interest of Nigerians in order to establish our presence. So we carried out [...] many marketing initiatives which help the people to accept the concept of online shopping we were introducing (Head of third-party logistics operation, J14B).

From our data, it emerged that the legitimacy phase of the adaptation process responded to filling primarily cognitive cultural voids by (1) building trust of customers, (2) expanding market base, and (3) forming an alliance with actors upstream and downstream on the value chain (Figure 1). Jumia builds the trust of people by combining various strategies. For instance, the strategy of using a 'cash-on-delivery' system of payment relieves a buyer (who knows little about e-commerce and has trust issues) from the fear of losing money since s/he only makes payment when the order is delivered. S/he loses nothing if the order does not arrive because of Jumia's "free return refund policy". Jumia also trained its delivery associates to help customers to install

or mount the ordered products, especially if it is technology-based, such as TVs, PCs or mobile phones. This strategy contributed to gaining the trust of customers in order to establish the legitimacy of the firm's operation, as indicated in the quote below:

> The normal Ghanaian community doesn't know about online shopping; the trust is something that is not there. The normal Ghanaian will not agree to buy something online when they can easily or equally get it from a vendor or just going through the market [...] so the payment on delivery was what earned us the trust of the Ghanaian people. [...] We only take the money when we go to deliver the product to prove that we are real and in so doing, we win their trust to legitimize our operations. [...] So that is how we were able to gain the trust of ordinary Ghanaian to legalize and legitimate our presence in the country (Deputy Head of customer service, J5B).

Again, Jumia trained sales agents called the "Jumia force" (J-force) and equipped them with tablets and mobile computers connected to the internet. The J-force team was dispatched to streets, market centers, churches, and public places in the cities. Their main responsibilities were to educate consumers about Jumia's e-commerce platform, demonstrate how the platform works, and at the same time, place impromptu orders for people who want to try the system. Together with the J-force, Jumia also opened a consumer service number for customers who need assistance by phone in order to place the order online. These strategies of demonstrating to and educating customers about how the online shopping platform works brought the imaginary "e-shop" closer to the people, making them get the feel of how the whole process of online shopping works. This reduced any negative beliefs and trust issues. Interestingly, this also meant that the *relationship between Jumia and its customers* was not based on self-service and automation through the Jumia website, but was assisted by the J-force agents. Overall, cash-on-delivery, free returns, the use of J-force, free technical assistance on delivery, and assistance via telephone were all important adaptations of Amazon's business model *value proposition* and *value creation and delivery* components that were better suited to the African institutional environment (Table 5).

Moreover, Jumia gained legitimacy in the business model adaptation process by expanding its market base. A growing customer base implies an increasing level of acceptance and brand loyalty. Hence at this phase, Jumia carried out massive advertising *activities* to expand its market base to legitimize its operation. For example, there were intensive television and radio commercials to sell Jumia to the mass market, as was clearly pointed out by two of our informants:

> I think in the beginning when we started, we actually modified the market because we had a lot of adverts everywhere such that when you move every ten minutes in the city you see Jumia. Also on TV we were there […] making people see the importance of Jumia or the e-commerce platform in Nigeria. […] But for now Nigerians have seen the importance of it, Nigerians know that it's here to stay and make their lives easier (Regional head for third-party logistics, J21).

> [...] we carried out great advertising activities using various forms of advertising media. This was necessary because we needed to grow our customer base, the more customers you get to trust you, the more they spread the news about you and the more you legitimize your operation (Deputy Head of customer service, J5B).

Another way by which Jumia gained legitimacy across the African continent was the formation of strategic alliances with well-known and trusted brands and firms across the continent. These alliance formations served as a catalyst for speeding up the validation processes needed to establish the necessary credentials for acceptance of Jumia's operations by the people. For a firm and its offerings to gain social justification, there has to be a recognition of a distinctive competency possessed or role played by the firm or its partners in providing a good or service. Hence, Jumia aligned itself with partners known for quality and reliability, with the aim of establishing the needed social recognition. This is vividly illustrated by the comments of the officer in charge of seller operations and the head of logistics operations:

> One thing that also made it easier for our business idea of online shopping to be accepted in Nigeria and other African countries was our alliance with companies of high reputation. For example, our alliance with MTN mobile served as endorsement stamp for us. Whenever people got to know that we partner with MTN they ask no further question because MTN has the reputation and the market (Head of seller operations, J15B).

> So let's say in category like mobile [phone] we have partnership with Samsung, we've had partnership with BlackBerry, […] we have been the first people to have it in the whole of the country. I think we

> were the first to have Samsung S3 and S4 back in the days, […] it was only on Jumia portal that you can buy [the phone when] it was [first] released, and we were the pioneers of BlackBerry (Head of logistics operations, J23A).

All these adaptations to value proposition and value creation and delivery components of the business model resulted in an increasing number of value chain activities performed in-house, with an increasing weight of fixed costs (e.g. advertising, J-force agents, and acquisition of warehouses) relative to variable costs, and thereby a further modification of the firm's *cost structure*. Based on the Jumia case, we conclude that developing market-based firms, after having tested the core elements that will underpin the business model (clarification phase), further adapt business model components to institutional voids in their local context with the aim of obtaining legitimacy among customers. The ability to demonstrate how the firm's business model meets the immediate needs of consumers is paramount in establishing trust and legitimacy. We, therefore, propose that:

> Proposition 2: *Once the core business model elements are set up, newly established firms in developing countries adapt business models designed for developed markets to institutional voids in their local context with the aim of obtaining legitimacy among customers.*

4.4.3. Localization phase

The localization phase mainly begins after the firm has gained some level of legitimacy (i.e. having been able to fill various cognitive cultural voids, the firm and its offerings are accepted, and it has acquired some customers). The central idea of the localization phase is that, at this phase, the firm is starting to run its full operation and therefore has to find an innovative way (due to various infrastructural, legal, and regulatory voids) of delivering value to a growing number of customers. For example, at this stage, Jumia realized it had to expand its offer outside the urban areas, to also reach customers in rural areas. As explained by two of our informants:

> One of the biggest challenges we had to deal with after dealing with the issue of trust to get the e-commerce business concept legitimized in Ghana, was how to design our operation to meet the local

> requirements in the country. [...] the business environment in Ghana and many African countries do not support online shopping or e-commerce and so we had to find our own way of making it work here (Head of seller support team, J1B).

> So we actually take Jumia to the rural areas and show them okay this is Jumia, and you can get this and you can get that. The Jumia force agents [sales agents] show customers items they can buy from Jumia and help them to place an order. They make sure they deliver it." (Business developer for fashion category, J11).

Since the firm wanted to increase the scale of its operations and expand to other cities and outside urban centers, the localization phase of the business model adaptation was aimed at filling significant infrastructural and legal and regulatory voids in the African business environment. In fact, as the firm expanded, on the one hand it encountered greater challenges in delivery of its products to a wider population of customers, often distant from its warehouses; on the other hand, its presence was more visible to local regulators that require the firm to adhere to or comply with bureaucratic procedures within an ambiguous and corrupt regulatory system.

At this phase, Jumia had established its market base through various activities, and consumers were aware of the Jumia brand and the value proposition it offered. The main task at the localization phase was to tailor a localized activity system and strategies to the local context that would allow Jumia to conveniently create, deliver and capture value. This was achieved by (1) conforming to local or indigenous formats and (2) responding to local regulations and requirements (Figure 1).

Jumia employed various strategies to conform to the local or indigenous formats. For example, as a delivery company, Jumia needed a delivery mechanism capable of overcoming the delivery challenges imposed by the nature of its environment outside urban centers. Unlike developed countries, where physical address systems are properly created to trace and contact consumers, most houses and buildings in Africa, especially outside urban centers, have no addresses, which imposes a great challenge for Jumia to implement a business model aimed at tracing the physical location of consumers in order to deliver their orders. To respond to these

voids, Jumia developed a system where it recruits local people and trains them as delivery associates (DA) who are responsible for delivering products and packages to customers. Moreover, during the ordering process, the consumer is asked to provide key landmarks (such as church buildings, schools, fields, bus stops, market centers) within her/his area which can easily be used to trace her/him in addition to the physical address. The consumer is then contacted via telephone, text message, or sometimes email to inform her/him of the delivery day and time, and also to notify her/him that the DA will keep contacting her/him for further directions on the day of delivery. The landmark gives the DA an idea of the physical location of the consumer and then the DA relies on constant communication with the customer (mainly through a telephone call or WhatsApp chat) to locate the customer and deliver the package. This was explained by a country manager in an interview as follows:

> When it comes to delivering products to the customers, we adopted the local way of locating houses by the use of landmarks because majority of houses here have no addresses and even the so-called houses with addresses cannot be located. So what works very well here is using landmarks. We ask customers to indicate the closest significant landmark to their house in their area. So we get to these landmarks and call them to meet us for their product (Country manager, J27).

Similarly, to deal with the void of high traffic conditions on roads in cities across many African countries, Jumia relied not only on motorcycles, which are able to maneuver through intense traffic but also established hubs and pickup stations[10] in the cities. The hubs and pickup stations are strategically situated within the city where all packages to be delivered within that area are transported from the main warehouse to the hub or the pickup stations for further delivery to the customers. To beat the traffic, the logistical operations of conveying the packages to the various hubs and pickup stations from the warehouse are carried out at night. At the hub or pick-up station, the packages are processed during the night shift and DAs resume work very early in the morning to start delivery. An informant discussed his experience as follows:

[10] A hub is a distribution center from which packages are dispatched to various pick-up stations; a pick-up station is a center where consumers walk in to take their orders themselves.

> Initially, when [we] ship a package on our platform […] we could not track what was going on. So [we] created a hub such that everything leaving first comes to that hub before it leaves the warehouse. […] it's the best thing that has happened in last two years because now it's easier for us to track better what we are doing." (Head of seller operations, J15A).

Most deliveries are done with a motorbike or a tricycle that is able to maneuver through the chaotic traffic in many cities in Africa to ensure prompt delivery. In the case of large packages, a delivery van is used, with deliveries scheduled during off-peak traffic hours. Jumia also offers a pickup service where customers can also opt to pick up the packages themselves at the pickup station at their own convenience.

Moreover, significant to the localization phase of the business model adaptation was how Jumia responded to the local regulations and requirements. Our data showed that well-established rules and regulations, such as contract-enforcing mechanisms, are missing or ineffective in Jumia's business environment, and hence Jumia adopted various strategies to respond to these ineffective local regulations. For example, they use "open contract agreements" to compensate for the lack of or ineffective contract-enforcing mechanisms where there is no direct legal binding agreement between parties: each party can breach the contract at no significant cost. This type of open agreement enabled Jumia to sign a lot of sellers. Also, the only way Jumia could work around the high level of corruption in these African countries was to pay some bribes, as lamented by one manager in an interview:

> Sometimes, the only acceptable means to get things done is to pay a bribe. This has nothing to do with whether it's right or wrong, that is the language so sometimes you have to speak it. [...]So I think in implementing a concept like online shopping here you have to dance to the tunes of the local requirements and arrangements (Head of seller operations, J15B).

In its attempt to respond to local regulations and requirements, Jumia brought forward a set of activities quite uncommon for e-commerce firms, especially in developed economies. The open contract agreements and sometimes the payment of bribes represent approaches quite different to Amazon, because Amazon's operations are anchored by strong market-supporting institutions.

It is evident that in an attempt to localize activities and processes to expand its operations, Jumia further adjusts its business model to institutional voids. The use of indigenous people as delivery associates, the use of landmarks to meet buyers, and the setting up of hubs and pick-up stations, are all strategies not performed by Amazon and denote a strong emphasis on adaptation of the *value creation and delivery* component. New key *resources* were then employed to strengthen the *channels* used to reach customers and deliver products to them (Table 5). Also, the *relationship with customers* changed, since the company, on the one hand, expanded its direct channels with the creation of pick-up stations, but also began relying on intermediaries, such as delivery associates. These adaptations of Amazon's business model components to the African context resulted in further changes also to the *cost structure*: e.g., Jumia bore higher fixed costs to build hubs and pick-up stations, as well as variable costs to hire indigenous people as delivery associates when necessary.

Based on this analysis, we conclude that the adaptation of the business model to institutional voids in developing countries at the localization phase involved establishing a foothold in the developing country by localizing activities for the creation and delivering of value to a growing number of consumers. Therefore, we propose that:

> Proposition 3: *Once the core business model elements are set up and legitimacy is obtained among customers, newly established firms in developing countries adapt business models designed for developed markets to institutional voids in their local context with the aim of localizing activities and processes.*

4.4.4. Consolidation phase

Once the localization phase is completed, the firm operates on a large scale in developing countries, both in urban and rural areas. At this stage, Jumia has educated buyers to make online orders and sellers to operate on Jumia's e-commerce Website. By adapting Amazon's business model to meet demand in African countries with little online shopping culture, Jumia is

gradually convincing customers to change their patterns of consumption. This case of Jumia is thus of a developing country-based firm that tackled institutional voids by adapting components of an established business model to its local context, and this adaptation, in turn, helped the firm to "change" its local context (Khanna & Palepu, 2010). At this stage, Jumia had to improve and refine localized activities to serve customers better. As explained by a manager in an interview:

> In fact, after going through various stages of challenging times to establish the online shopping concept in Ghana, we began various improvements and refinement process of some key activities and processes to help serve customers better. There was a massive improvement in our processes, infrastructure and even in human resources (Officer in charge of inbound logistics, J6B).

Jumia went through this consolidation phase by (1) rearranging and adjusting business processes and activities, (2) obtaining feedback from buyers and sellers, and (3) introducing new business processes and activities. For instance, as for the rearrangement of business processes and activities, Jumia broadened its product assortment and customer base by adding a marketplace model to the consignment model. The introduction of the marketplace model allowed vendors (now trusting the Jumia brand) to sell their products directly on Jumia's platform. These vendors drop off the products displayed on Jumia's website at the warehouse to be stocked for prompt delivery, or they may keep the products at their stores but once an order comes in, the products are picked from their stores and processed for prompt delivery. This called for adjustments in various activities pertaining to *value creation and delivery*. As an informant recalled:

> Right now, Jumia Nigeria keeps [moving] from a consignment, and thereby inventory led, business model to one of the marketplace, where we hold no inventory and we rely on more vendors dropping off packages (Head of third-party logistics operation, J14A).

The marketplace model provides a wider product portfolio and a larger consumer base to Jumia. Because Jumia began receiving orders from cities far away from its warehouses, hubs and pick-up stations and was unable to deliver directly to the consumers in these areas due to logistical challenges and other transportation problems, Jumia decided to partner with reliable third-party

logistics companies in the country such as FedEx, DHL, and UPS to guarantee consumers safe and prompt delivery throughout the country, as explained by one of our informants:

> If we don't cover with our own in-house fleet, we cover with the third-party logistics partners so these are things we've done. We've more than tripled our capacity […], we've entered into so many partnerships with logistics providers, we've really grown and we are still growing (Head of third-party logistics operation, J14A).

As for the company increasing attention by obtaining feedback from both buyers and sellers, one of our informants was particularly explicit about this point:

> We do a lot of feedback sessions, and we do a lot of random sampling of our customers to get their feedback. So we are in a constant communication with our customers to understand where we can improve and what […] the complaints [of] customers [are] and we work on that feedback. […]. I'm in communication with every 3PL partner at least once a week. I talk to the CEO if necessary, I have conversation with the Hub managers, I get a lot of feedback from them […], I get a lot of ideas that I can improve, so […], I do a hub of the month award where I celebrate even my 3PL partners that have done wonderfully well, we bring them into the office to make sure they are celebrated and from there I get a lot of feedback as well (Head of third-party logistics operation, J14A)

Similarly, to meet the demands of its growing customer base and to improve the payment system, Jumia further introduced other payment systems such as mobile money payment where the customer makes payment via her/his mobile money account provided by their mobile phone network provider. Just as with the cash-on-delivery payment, the mobile money payment also allows the consumer to make payment for her/his order conveniently and safely. These continuous refinements and adjustments enabled Jumia to further localize the structure of its activity system and continued to change *governance* toward the integration of more external partners to satisfy the growing demand for its products. As noted by one of our informants:

> But now other stations have been set up in other areas in Lagos and the number of customers they are reaching now has grown really high. We even see people from rural communities placing orders. Warehousing has also changed; we have obtained a very modern warehouse equipped with standard technology and systems to improve performance. So warehousing has changed, the number of customers we reach has changed and quality checks have improved (Manager of a pickup station, J13).

Overall, it is evident that Jumia's business model at this phase appeared to be maturing with various changes and adjustments to the established localized activities and processes to suit

the institutional context of the African business environment. The refinement and adjustment of key activities and processes depict significant adaptations to various components of the business model. For example, the introduction of the marketplace model, the use of third-party logistics firms to deliver products to customers, the introduction of mobile money payment as an alternative to cash-on-delivery payment and the emphasis on customer feedback connote a strong emphasis on adaptation of *value creation* and *delivery* (i.e. *channels* and *customer relationship*), and *value capture* (i.e. *revenue stream*) components of the business model. These adaptations further resulted in changes in key *activity structure*, as well as the *governance structure* of the business model components because, for example, in this phase, some important activities were carried in-house and at the same time by third-party firms (Table 5). We thus offer the following proposition:

> Proposition 4: *Once the core business model elements are adapted to institutional voids, legitimacy is obtained among customers, and activities and processes are localized, newly established firms in developing countries further adjust, improve and refine processes and activities to develop a robust localized business model that meets the demands of the firms' institutional context.*

Please insert Table 5 and Figure 1 around here

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5. Discussion

5.1.Implications

In this study, we have explored the theme of how the institutional environment affects firms' business model development in developing countries, taking the perspective of developing country-based new ventures. Specifically, this paper takes the perspective of a newly established firm in a developing country adapting a business model designed for developed economies to institutional voids in its local market with the aim of pioneering a new industry and create new

demand. In fact, although various studies have examined cases of multinationals replicating or adapting their domestic models when entering developing countries (Eyring et al., 2011; Landau et al., 2016), the extant literature to date has not articulated the central issues related to how developing country-based new ventures respond to institutional voids when designing their business model, nor has it addressed the phases the business model adaptation processes go through.

Using the African e-commerce Jumia as a case study for our analysis, and by using the *value-based* (Casadesus-Masanell & Ricart, 2010; Teece, 2010) and the *activity system* (Amit & Zott, 2001; Zott & Amit, 2010) perspectives to examine a firm's business model components, we found that institutional voids in developing countries impede successful replication of business models designed in developed countries, while leading to a gradual business model adaptation process that goes through four phases, each phase aimed at gradually allowing the new venture to consolidate its position in the business environment. With these findings, we contribute to the growing literature on institutional voids in developing countries (e.g. Gao et al., 2017; Khanna, Palepu & Sinha, 2005; Khanna & Palepu, 2010) and business model innovation (e.g. Aspara et al., 2010; Casadesus-Masanell & Zhu, 2013; Foss & Saebi, 2017), and in particular to those studies that have examined how firms adapt their business model when entering an unfamiliar environment (e.g. Dahan et al., 2010; Dunford et al., 2010; Landau et al., 2016).

Again, our findings suggest that when it comes to business model development, in the presence of institutional voids, adaptation, as opposed to mere imitation, is what happens. Institutional voids in developing countries create unique conditions that force firms to design their business models to substitute the lack of market supporting institutions (Khanna & Palepu, 2010). Mere imitation of other industry peers' business models, especially if these business

models are designed for consumers in developed economies, is not likely to work. With this finding, we contribute to those studies in international management which suggest that a firm's internationalization strategy will tend to mimic that of their peers, market leaders in particular, because of isomorphism or bandwagon effects (e.g. Guillèn, 2002, 2003; Henisz & Delios, 2001; Oehme & Bort, 2015). We extend this literature by arguing that imitation of a business model designed for developed countries is viable strategy and is likely to happen if the imitator's target market is a developed country; if the target market is characterized by weak market supporting institutions, as in developing countries, the initial attempt to imitate is more likely to result in an adaptation.

Finally, we believe the topic of business model adaptation to institutional voids is particularly important for practice. In fact, although the practitioner-oriented literature has put forward guidelines for managers to adapt their business model to institutional voids (e.g. Eyring et al., 2011), the "process" by which a business model emerges and evolves over a period of time in environments with weak market supporting institutions is not fully known (Demil et al., 2015; Zott and Amit, 2010). Our findings suggest that for a newly established developing country-based firm, replicating a business model designed in developed countries is not a viable option. A gradual adaptation to institutional voids is needed. This process begins with a test of the core elements that will underpin the business model. Here the firm's business model is likely to require strong adaptations in terms of channels and customer relationships in order to support a value proposition that needs to be designed ad hoc for customers in developing countries, most likely presenting different patterns of consumption with respect to customers in developed economies (George et al., 2016). After having established the core business model elements and ascertained their viability in the local context, the firm needs to further adapt components of its

business model to gain trust among consumers and key suppliers, gain the recognition and legitimacy that the firm and its offerings are reliable, and thereby set the basis for future expansion on a larger scale. After the legitimacy phase, the firm begins full operations and therefore has to find an innovative way of delivering value to a growing number of customers. In developing countries this usually means reaching areas outside urban centers, where institutional voids might be even more critical, thus calling for further business model adaptations. Finally, once the firm has obtained the trust of buyers and suppliers, and localized activities and processes, essentially it has changed the environment in a way that consumers trust its conducts because the firm has successfully substituted the absence of reliable market-supporting institutions. At this stage, it is mainly a matter of the firm needing to consolidate the localized activities and processes by refining and introducing new processes to help serve customers better on a large scale.

5.2. Limitations and Suggestions for Future Research

While we believe we have made a significant contribution to the understanding of business model adaptation to institutional voids in developing countries, it is important to acknowledge some limitations of our study and put forth suggestions for further studies. First, it can be argued that institutional voids vary considerably across industries and countries. Therefore, the business model adaptation process in relation to institutional voids we observed in the e-commerce industry in some African countries may not hold for other industries and countries. We acknowledge this as a limitation of this study and hope future studies may explore this issue in different industries across many developing countries to help further develop a better understanding of the concept of business model adaptation. Second, it was observed that the governance structure of Jumia keeps on changing as the company continues to attract new

investors. This change in governance structure thus may have an effect on the business model adaptation process because every investor may exert a different level of influence. Still, we have not examined this issue in our theory. Future research might consider addressing the role of investors or how changes in the governance structures affect the business model adaptation process.

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TABLE 1
Data Sources

Source of Data	Type of Data	Use in Analysis
Formal interviews	14 interviews, February–March 2016 (subsidiary in Ghana) 13 interviews, May–June 2016 (subsidiary in Nigeria).	Gather data regarding the company's business model, strategy, structures, and practices, their origins, and evolution. Trace the institutional voids present in the subsidiary's industry, identifying the company's unique adaptation mechanisms to these voids. Enrich our understanding of the extent to which the company has modified components of its business model to suit the African e-commerce business environment.
	11 follow-up interviews, November 2016–February 2017 (8 in Ghana and 3 in Nigeria).	Gather data to enhance our understanding of the emerging theory of business model adaptation process.
Informal interviews	5 interviews, January–June 2016 (2 interviews in Ghana and 3 interviews in Nigeria).	Verify observations and interview responses to refine our emerging theoretical insights; contextualize the observed processes in terms of industry and design history.
Participant observation	Field notes, January–June 2016 (about 960 hours in both Ghana and Nigeria).	Establish and build a trusting rapport with informants, become familiar with the study context, facilitate interpretation of informants' accounts, and work at better assessing the veracity of their responses.
Corporate documentations	Data from company's website, presentations, training manuals, newsletters, and emails.	Reconstruction of the history of the company and triangulation of informants' responses to the interview question. Track official corporate narrative and access transcripts of public communications of organizational leaders (e.g. investor meetings). Track the implementation of the company's business model and triangulate informants' recollections.
Business press and news articles	News articles about the company, (retrieved from BBC, The Wall Street Journal, Financial Times, Reuters and Bloomberg Businessweek, among others).	Triangulate facts and observations; enhance the validity of insights; contextualize observed process in terms of industry. Track external responses to organizational actions (press, financial markets, industry observers).
Videos (online)	Videos of interviews with the CEO of Jumia Nigeria, Jumia Kenya, Jumia Cameroon and video commercials of Jumia.	Triangulate and validate facts and observations; gain additional understanding of the organization and the implementation strategies of the company's business model.

TABLE 2
Informants

Interviewee’s job function	Job function description	Number of interviewees per job function	Interview codes used in text [a]
Head of seller support team	Manages and supports sellers selling on the platform	1	J1A, J1B
Head of IT team for new countries*	Provides IT support such as fixing bugs on the website and other software used by the new countries	1	J2A, J2B
Customer service representative	Connects with the customer to confirm their orders, place orders for them, and respond to their concerns and feedback	3	J3A-C
Officer in charge of seller fulfillment	Manages pickups from sellers	2	J4A, J4B
Deputy head of customer service team	Liaises with the delivery team and the customers to make sure the orders and delivered on time and respond to their concerns and feedback	1	J5A, J5B
Officer in charge of inbound logistics	Oversees inventory at the warehouse	1	J6A, J6B
Country manager of AIG Express	Supervises all logistical operations in the country	1	J7
Officer of returns & after-sales operations	Manages returned items and issues refunds to customers	1	J8
Key account manager	Responsible for building or growing product assortment on the website. Deals directly with vendors to register different products on the website	1	J9
Managing director for new countries*	Supervises Jumia’s operations in the new countries; Ghana, Cameroon, Senegal, Algeria, and Tanzania	1	J10
Business developer for fashion category	Searches for suppliers and negotiate price point and commissions	1	J11
Head of the content team	Responsible for all the products displayed on the website	1	J12A, J12B
Manager of a pickup station	Manages delivery of packages to customers at station	1	J13
Head of third-party logistics operation	Manages delivery operations conducted through all third-party logistics partners	1	J14A, J14B
Head of seller operations	Responsible for both forward and reverse operations with the sellers	2	J15A, J15B
Head of operation excellence	Responsible for ensuring compliance to defined procedures and processes	1	J16
Head of Fleet Training and Delivery	Responsible for training delivery associates (drivers and riders)	1	J17
Manager in charge of network operations	Responsible for the distribution of packages from the main warehouses to all hubs and stations across the country	1	J18
Field trainer	Responsible for managing delivery associates	1	J19
Manager in charge of inbound logistics	Responsible for receiving and processing items into inventory	1	J20
Regional head for third-party logistics	Responsible for all third-party logistics across the region	1	J21
Hub manager	Responsible for managing operations at a hub	1	J22
Head of logistics operations	Responsible for managing all logistics operations including inbound, outbound network, and third-party logistics operations	1	J23A, J23B
Manager of application software	Responsible for managing all applications software used	1	J24

Head of customer request & optimizations	Responsible for handling customer issues and enforcing compliance of key processes and activities	1	J25
Acquisition and production executive	Responsible for sourcing and displaying products on the website	1	J26
Country manager	Supervises all Jumia's operations in a country and reports to the central team	1	J27
Founder and managing director of Jumia**	Established Jumia in one of the African countries and manages and controls all operations in that country	2	J28A, J28B
Country manager**	Supervises all Jumia's operations in a country and reports to the central team (interviewees based in Kenya or Cameroun)	6	J29A-F

[a] Coded to preserve anonymity.
* Interviewees that oversee operations also in countries other than Nigeria or Ghana.
** Video interviews that were retrieved from public sources, like the Jumia's website or business-oriented online media, published in the period 2013-2016.

TABLE 3

Data Structure for Institutional Voids in the E-commerce Business Environment in Africa (Output of Data Analysis Phase 1)

Illustrative quotes (empirical observations)	Institutional voids extracted from illustrative quotes (theoretical observations)	Major categories of institutional voids (theoretical constructs)
"Nigeria has a lot of bad roads and our roads […] you always have to go the longest route since the shortest route might not be accessible. *(J21)*	Bad roads → difficulties to ensure quick delivery	
"[…] when you come to that, getting a specific [house] address is a very big challenge." *(J16)*	Poor physical address system / Buildings with no addresses → problems in reaching customer addresses.	
"Internet connectivity is a general problem across Africa." *(J13)*	Poor internet connectivity/ Poor internet penetration → difficulties in reaching customers via the internet.	
"There is intense traffic on the roads [in Nigeria]" *(J14A)*	High traffic intensity → difficulties to ensure quick delivery	
"We don't have a very connected rail system, which is a big challenge." *(J19)*	Transportation problems → difficulties in quickly reaching customers far from the company warehouses	*Infrastructural voids*
"We also not have steady electricity supply." *(J13)*	Unstable electricity supply → disrupting operations at warehouse	
"Many people might not have laptop, they might not have pc and wifi." *(J7)*	Poor PC penetration → difficulties for customer to access the internet to make online orders	
"Yeah, one of the problems we are facing is related to the underdeveloped payment system across the country […] It happens sometimes that the systems of the banks are down." *(J9)*	Underdeveloped payment systems → difficulties for customer to make credit card transactions	
"The biggest challenge we have is fuel and this affects us on the roads and at the hubs."*(J13)*	Fuel scarcity → several transports and delivery companies run out of petrol	
"We have had instances where some guys place order and put a wrong address." (*J21)*	Lack of reliable data about customers and suppliers → difficulty in making accurate decisions about delivery activities	
"[There is] a whole lot of scams and when it comes to this kind of things like anybody can come up with anything." *(J16)*	High level of internet fraud → resulting in lack of trust and poor attitude toward e-commerce	
"One of the major factors affecting our operation is the corruption in	High corruption → impeding smooth running of operations	

the system at every level." *(J13)* "I remember for example cases where some of our deliveries associates were just stopped by the police and they won't pay anything to the police so the police will just throw them into prison […] so they will put them into prison and then ask them to call Jumia […] and wait for some kind of bribe to set them free." *(J7)*		
"Another thing is security; most times our DA's have been attacked by robbers, [the robbers] will lure them into a secluded place and rob them." *(J19)*	Criminal/ security challenges. → imposing security threats to personnel	*Legal and regulatory voids*
"We have people paying with fake currency and, as usual, we bear the cost." *(J6A)*	Fake currency → negatively affecting revenue	
"E-commerce is very new in these countries so the loose regulations regarding e-commerce are often quite undefined." *(J10)* "People [suppliers] don't understand e-commerce in general and our laws also do not bind people when it comes to defaulting contracts signed." *(J1A)*	Ambiguous and/or inefficient legal system. → difficulty in finding and monitoring partners' behavior	
"We get complaints about some fake products from some sellers." *(J1A)*	Fake and imitation products → difficulty in satisfying customers with authentic and quality products	
"Nigerians do not trust online platforms." (*J14A)* "[If] you place Amazon US and you place Jumia platform, and you tell them which one you will prefer to place an order using your card, majority of them will tell you the US platform. Why? [It] is just more about the local mentality. People tend to trust more things that are international than their own local stuff." (*J16*) "People have this fear of e-commerce. There have been so many scams in the past." *(J25)*	Customers' lack of trust in e-commerce in Africa, and in African brands in general (as opposed to global brands) Low acceptance rate of the culture of online shopping or e-commerce → leading to poor attitude toward online shopping	
"Once [customers] place an order […] and if what you are bringing is not exactly or maybe a slightly different than what they ordered, they will reject it. For example, a customer ordered a stabilizer, the stabilizer, of course, does not come with its head that we use to plug	Customers lack of experience with e-commerce → creating unwilling and bad attitudes toward e-commerce	*Cognitive cultural voids*

into the power socket. So because of that, the customer wants to return it. So when we went for retrieval, we just discovered that it is because of the head that she wants to return it.”*(J19)*	
“It is not easy to get suppliers to supply you with products especially if you are selling online because these firms in the country and in other African countries do not trust e-commerce.” *(J28A)*	Lack of trust in e-commerce by African firms (vendors) → difficulty in finding vendors

TABLE 4
Strategies Pursued by Jumia to Fill Institutional Voids in Africa (Output of Data Analysis Phase 2)

Major institutional voids	Jumia's attempt to fill voids (illustrative quotes)	Strategies to fill the voids (extracted from illustrative quotes)
Infrastructural voids		
Unstable electricity supply.	"We've invested in things like a generator for uninterrupted power supply." *(J6A)*	The use of generator plants to have uninterrupted power within offices and warehouses.
Bad roads / transportation problem.	"So the pickup station is one main idea that has helped us to address transportation problems because we don't have a lot of our fleet traveling on the poor road for so long to deliver to customer." *(J16)*	The use of pick up stations to more easily find customers in rural areas.
	"We do not rely on the local postal delivery system to deliver our product because of various reasons including inefficiencies on their part; instead, we invest in our own vehicles and motorbikes. (*J6B*)"	The use of own fleet of vehicles in urban areas to avoid ineffective public postal system.
	"Another approach to this is the use of third-party logistics firms like DHL, UPS, and FedEx. The issue is areas within the country that we feel we have transportation difficulties, we ask them to deliver for us." *(J16)*	The use of third-party logistics firms to be more effective when serving wide geographic areas.
Poor physical address system / Buildings with no addresses.	"We have to adapt by also looking for a landmark close to the address given by the customer […] we reach the customers on phone [and] they direct us from the landmarks they've given towards where exactly they are located." *(J14A)*	The use of landmarks to more easily reach customers in rural areas. Constant communication through phone calls with customers to receive instruction in real time on where to reach them.
	"One of the things we've done to cater for this problem is that we've situated our hubs really close to major marketplaces within each locality so even if your house is not that easy to locate, you can still pick up your item from the hub." (*J20*)	Sitting up of hubs and pick-up stations within the localities to facilitate easy delivery.
	"Basically for areas where we don't have street names, we have business arrangement with some third-party hubs where indigenes of the area or people that know the layout of the area well owning these hubs. These people also hire indigenes of the area and when an address pops up on the system or a package, these items are gathered together per roots and then given to that person that understands that root vividly. Doing this also helps us to reduce cost because the person knows the area so well to quickly deliver the packages to the customers." (*J13*)	The use of third-party partnership to create a hub in the localities to do the deliveries to the customers. The use of local people (indigenes) who know the area to locate customers.
	"Customers are supposed to give an additional number we can reach them […]. Sometimes they might not even be at the designated location but once you are able to reach the person on phone you can deliver where ever he or she is." *(J8)*	Constant communication with customers via telephone call to locate them for delivery.
	"We have gotten riders who know the neighborhoods very well." *(J6A)*	Relied on riders (indigenous) who know the neighborhoods very well.
Poor internet connectivity / Poor internet penetration / Poor telecommunication services.	"We have a team called J-force, so they actually go out and meet people on the streets and help them to place order." *(J15A)*	The use of sale agent (J-force) to educate and help customers make online orders.

	"We have the service where you can call the customer service and say 'I want to buy this item to place an order for me', and the order will be placed for you." *(J15A)*	Using dedicated customer service team to assist customers via telephone call in making online orders.
	"It was free to use the Jumia App using an MTN mobile number, like if you are using Jumia app with MTN connected line I think you browse website with zero megabytes." *(J16)*	The use of Jumia app on a phone with MTN mobile number to get free data bundle to browse on Jumia website.
	"Whenever [internet] goes off, it halts the operations and so sometimes we have to make do with our phone which is not very encouraging but we have to make do so for the business can go on." *(J4A)*	The use of backup wi-fi to connect to the internet. The use of personal data bundle to connect to internet.
High traffic intensity.	"Traffic is not our friend here at all but our best friend is our motorbikes." *(J13)* "We usually use bikes for small packages and that also helps us to navigate through traffic." (*J18*)	The uses of motorbikes (or even bikes for "short distance-low weight" items) to more easily avoid traffic congestion and deliver in a reasonable amount of time.
	"Our hub managers understand the environments such that they know when and where traffic is intense. So they plan ahead on those days and times and send delivery associates very early to avoid this huge traffic. Work starts at 8 am on a normal day but delivery associates start work as early as 6 am on traffic days so that they can beat the traffic." *(J13)*	Early start (early resumption of duty) to beat the traffic.
Underdeveloped payment systems.	"We have an innovative way of actually paying on delivery where you pay us on the spot which is called cash-on-delivery […]I can tell you that without cash-on-delivery it will be difficult to actually survive." "We do mobile money payment." *(J14A)*	Employing cash-on-delivery payment method and mobile money payment.
Lack of reliable data about customers and suppliers.	"We have built our system for gathering and managing information about our customers. Initially, it was kind of difficult but our approach was that we had a lot of marketers on the field who talked to people and sold Jumia out and thereby gathering pieces of info from them […] we have a pool of data especially about our suppliers that we base our decision concerning them on." *(J16)*	Built own database of customers and sellers to substitute the lack of reliable market research firms.
	"Maybe when we call them [customers] and notice that there is an issue with his banking details, or suspect any issue of fraud we block them. Also, we have a database which shows the history of customers' orders. So when we check the history and notice that that customer has had a lot of cancellations or has never accepted any package he orders, then we block him." (*J21*)	Blocking unreliable customers from the platform.
Fuel scarcity.	"We have negotiated specific times where we don't have to be in the queue for too long." *(J17)*	Built good relationships with fuel filling stations to benefit from propriety services in case of fuel scarcity.
	"Our strategy is that we have good relations with managers of some fuel stations so they are able to store some fuel for us whenever available and also we make use of motorbikes more for less bulky items when fuel scarcity intensifies." *(J22)*	Relying on good relations with fuel stations and making more use of motorbikes during fuel scarcity.
Legal and regulatory voids		
Complicated bureaucratic procedures to acquire licenses	"I'd say for JUMIA, it hasn't been too difficult because we have a parent company so we rely on our parent company in securing licenses and certificates of operations." *(J5A)*	Synergy with the mother company to secure licenses.

and certificates.		
Ambiguous and/or inefficient legal system.	"Our main model of contract or agreement is to give an open system. So, for example, it means that if I go into an agreement with a supplier, he can leave anytime he wants, nothing binds him because that is how you get him to join you. But if you bind him by too much rules, he might not join because he feels you want to control him and then the activities he is engaged in." *(J5A)*	Use open contracts or agreements to attract also those sellers that prefer flexible, short-term relationships.
Fake and imitation products.	"We've learned it's the terrain [for fake products] and we've learned to work around it perhaps by having multiple suppliers […] so that should if one [a seller] let you down you can always fall on another." *(J6A)*	Having multiple sellers to replace those with fake products.
	"Sometimes we get complaints about some fake products from some sellers, it is difficult going back to the seller telling them that our customers are telling us your products are fake. So our vendor managers just put these sellers offline." *(J1A)*	Removing sellers with fake products from the platform.
High corruption.	"I mean the goal should definitely be to improve how business is done and to work against corruption but if you do not add some pounds you might not have the chance." *(J7)*	Sometimes rely on payment made to authorities to get work done.
Criminality/security challenges.	"We have been able to manage that [by] educat[ing] our delivery associates on detective scenarios [such as robbery]. So they know [and can] suspect this [criminal acts] So that [criminal acts] has reduced, but it's still a challenge because we lost some money there." *(J19)*	Educate personnel on how to cope with dangerous situations.
	"For instance one of our hubs is getting shut down by tomorrow [due to] security reasons […] we had some of our hubs attacked." (*J13*)	Exit markets areas of high incidence of criminality and insecurity.
Cognitive cultural voids		
Buyers' lack of trust in e-commerce in Africa.	"You have cash-on-delivery as an option to make payment; at the same time you have a team of people that can actually meet you offline and you can easily place order for what you want." *(J15A)*	Cash-on-delivery payment method to cope with customers mistrust on online payments.
	"We guarantee you a seven-day unconditional money-back returns." *(J6A)*	Opportunity to return items to not discourage customers skeptical of the reliability of online orders.
	"But the secret to why Jumia is still thriving even though we have these problems is communication, we try as much as possible to inform the vendors beforehand." *(J9)*	Constant communication with the customers to inform them about their package at every stage of the delivery process.
	"I think one way we are addressing this is marketing (advertisement) both online and offline. Because we are online company most of our advertisement is done online through the social media, Facebook, Twitter. I think we have marketing officers who take care of that and also on the outside sometimes we have Jumia J-force who go run to companies, schools, and other organizations to introduce jumia and also e-commerce to them and sometimes get them to order online, as in testing the system to see how it works. This is something we do to educate people about us." *(J1A)*	Massive advertisement and the use of sales agents (J-force) to introduce Jumia to the customer.
Buyers' lack of experience with	"A customer […] ordered [for] a stabilizer, the stabilizer […] does not come with its head	Free technical assistance on how to use/install the product once it is

e-commerce.	[adaptor plug] that we use to plug into the power socket [and] so […] the customer want[ed] to return it. So we encouraged her that there is nothing wrong with the stabilizer because normally it doesn't come with head. […], so we asked her if she had a plug […] we connected it, plugged and it was working, she [and] didn't return the item again. So there are some things customers will ordinarily reject it because [of lack of technical knowledge]." *(J19)*	delivered.
African sellers lack of trust in e-commerce.	"Many sellers or vendors do not know about e-commerce and therefore have no trust in it. We had to use various means to convince them to do business with us. […] For example we had to carry some sellers to inspect and see our warehouse and how we operate before they agreed to supply us with their products." *(J4B)*	Convincing vendors to partner by showing them Jumia physical infrastructure (e.g. offices warehouses).

TABLE 5

Jumia's Business Model Adaptation Process of Amazon Business Model to Institutional Voids in the African Market (Output of Data Analysis Phase 3)

Business model macro-components[a]	Business model micro-components	Amazon business model (reference target for Jumia)	Phases of Jumia's business model adaptation in Africa, 2012–2017			
			Clarification phase: aimed at clarifying (testing) the core elements that will underpin the business model	Legitimacy phase: aimed at obtaining legitimacy among customers	Localization phase: aimed at meeting different local requirements	Consolidation phase: aimed at reinforcing the localized business model
			Nigeria: beginning 2012; Ghana: beginning 2014	*Nigeria: 2012—approx. 2015; Ghana: Mid-2014—approx. 2015*	*Nigeria: 2013—approx. 2015; Ghana: end-2014—approx. 2015*	*Nigeria and Ghana: approx. 2015—today (February 2017)*
Value proposition	*Offering* (the bundle of products and services that create value for customers)	A wide selection of products at low prices; user-friendly online platform; quick delivery service; secure online transactions.	A relatively narrow selection of quality products at low prices; user-friendly online platform; quick delivery service; cash on delivery.	A wide assortment of quality products at low prices; user-friendly online platform; quick delivery service; cash on delivery; free return.	A wide assortment of quality products at low prices; user-friendly online platform; quick delivery service; cash on delivery; free return.	A wide assortment of quality products at low prices; user-friendly online platform; quick delivery service; cash on delivery; free return.
	Customer segments (the different groups of people or organizations a company aims to reach and serve)	It operates mainly in developed economies (with the exception of China, India, and Mexico) with regular or predicted consumption patterns, whose transactional activities are supported by effective and efficient payment platforms.	It operates in African countries with little online shopping culture. Buyers only in urban areas, that have PC and internet connection, but that are skeptical about doing online transactions.	It operates in African countries with little online shopping culture. Buyers only in urban areas, both those that have PC and the internet, and those that are PC and internet illiterate.	It operates in African countries with little online shopping culture. Buyers both in urban areas and rural areas; both those that have PC and internet, and those that are PC and internet illiterate.	It operates in African countries with little online shopping culture. Buyers both in urban areas and rural areas; both those that have PC and internet, and those that are PC and internet illiterate.
Value creation and delivery	*Key resources* (the most important assets required to make a business model work)	(1) IT infrastructure and software secured by well-enforced intellectual property law and other regulations; (2) several physical warehouses with up-to-date technology to meet customers' needs; (3) established relationships with third-party logistics partners.	(1) IT infrastructure and software built to resemble those of Amazon in terms of layout and usability; (2) no warehouses but rooms in a small apartment; (3) own fleet of vehicles, though quite narrow, used by its own delivery personnel (i.e. delivery associates—DA).	It added to previous resources: (1) wider fleet of vehicles; (2) personnel trained to educate how Jumia works, i.e. J-force; (3) personnel to give technical assistance on product delivered; (4) acquisition of the first warehouses.	It added to previous resources: (1) relationship with indigenous people as delivery associates, mainly outside urban areas; (2) hubs and pick-up stations to facilitate delivery; (3) acquisition of other warehouses.	It added to previous resources: (1) increasing tasks assigned to third-party logistics partners to supplement the firm's own delivery; (2) mobile money payment technology as an alternative to cash-on-delivery; (3) wider number of warehouses, hubs, and pick-up stations.
	Activity system content, structure, and governance (Which are the most important activities to make the business model work, how they are linked and who perform them) [b]	*Content:* Order delivery and fulfillment through a network of partners, IT infrastructure development and maintenance, frequent product development and promotions. *Structure:* Activities are structured to sell and deliver a large number of	*Content:* IT infrastructure development; purchasing of goods up-front from independent sellers; acquisition of vehicles. *Structure:* Activities are structured: (1) to fill mainly the basic infrastructural voids to make	*Content:* Advertising and promotions; purchasing of goods; sales and delivery activities of a wider number of products; after-sales services; alliance formation with actors upstream and downstream of the value chain. *Structure:* Activities are structured (1) to fill	*Content:* Sales and delivery activities of a larger number of products; advertising and promotions; after-sales services. *Structure:* Activities are structured (1) to fill legal and regulatory voids and continue filling infrastructural voids	*Content:* Adjustment and refinement of localized activities pertaining to sales and delivery activities of a large number of products, advertising, and promotions, designing activities, purchasing of stock, and after-sales services. *Structure:* Activities are structured (1) to

		products in countries with strong market-supporting institutions and mature online shopping experience. *Governance:* Although it directly designs and manages its online platform and warehouses, it outsources most of warehousing activities to independent resellers and delivery activities to third-party logistics partners.	the business model work; (2) to sell and delivers a small number of products, mainly in urban areas. *Governance:* Most activities are carried out in-house to ensure full control of high-quality service.	mainly cognitive cultural voids to legitimate the Jumia brand among African customers, (2) sell and deliver a wider number of products mainly in urban areas. *Governance:* Most activities are carried out in-house to ensure full control of high-quality service	to comply with local requirements, (2) to sell and deliver a larger number of products to consumers both in urban and rural areas. *Governance:* Jumia relies on the support of some third-party firms (i.e. indigenes as DA) to carry out the localized activities required to fulfill customers' orders.	continue responding to all types of institutional voids to solidify the established business model components, (2) to sell and deliver a larger number of products to consumers both in urban and rural areas. *Governance:* The adjustment and refinement of localized activities are in-house and by third-party firms.
	Channels (how a company communicates with and reaches its customer segments to deliver its value proposition)	*How it reaches customers:* Through the website (Amazon.com) and affiliates' websites in mainly developed economies where consumers know and have access to the internet. *How it delivers:* Through third-party logistics firms and postal delivery services.	*How it reaches customers:* Through Jumia website. *How it delivers:* Through its own delivery personnel and fleet of vehicles.	*How it reaches customers:* Through Jumia website, J-force, and advertising. *How it delivers:* Through its own delivery personnel and fleet of vehicles.	*How it reaches customers:* Through Jumia website, J-force, and advertising. *How it delivers:* Through its own delivery personnel, indigenous people as delivery associates, pick-up stations.	*How it reaches customers:* Through Jumia website, J-force, and advertising. *How it delivers:* Through its own delivery personnel, indigenous people as delivery associates, pick-up stations, third-party logistics partners.
	Customer relationships (the types of relationships a company establishes with specific customer segments)	*Product choice:* self-service and automated service on Amazon website. *Product payment:* automated on Amazon website. *Product delivery:* indirect (third-party logistics partners).	*Product choice:* self-service and automated service on Jumia website. *Product payment:* direct/personal during delivery. *Product delivery:* direct/personal.	*Product choice:* both automated on Jumia website and personal/assisted via telephone or with the help of J-force. *Product payment:* direct/personal during delivery. *Product delivery:* direct/personal.	*Product choice:* both automated on Jumia website and personal/assisted via telephone or with the help of J-force. *Product payment:* both direct/personal and indirect (by means of indigenes as DA). *Product delivery:* both direct/personal (via Jumia DA and pick-up stations) and indirect (indigenes as DA).	*Product choice:* both automated on Jumia website and personal/assisted via telephone or with the help of J-force. *Product payment:* both direct/personal and indirect (by means of indigenes as DA). *Product delivery:* both direct/personal (via Jumia DA and pick-up stations) and indirect (indigenes as DA and third-party logistics partners).
Value capture	*Revenue streams*	Retail sales, commission on resellers' sales, prime monthly subscriptions.	Retail sales (no fee on delivery services because no partnership with sellers).	Retail sales and fee on delivery services.	Retail sales and fee on delivery services.	Retail sales and fee on delivery services.
	Cost structure	*Fixed costs*: IT platform improvement and maintenance; marketing; warehousing.	*Fixed costs*: IT platform development; acquisition of fleet of vehicles; goods	In addition to costs borne in the previous phase, Jumia bore higher fixed costs in the form of	In addition to costs borne in the previous phase, Jumia bore higher fixed costs to build hubs and pick-	With respect to the previous phase, the weight of fixed costs relative to variables costs

	Variable costs: relies heavily on warehouses and delivery activities performed by independent sellers.	purchased up-front from sellers; place where stock products.	advertising, J-force agents, acquisition of warehouses.	up stations, as well as variable costs to hire indigenes as delivery associates when necessary.	diminished because: (1) Jumia began relying on warehouses of independent sellers (marketplace model), (2) it delivers lots of items by means of indigenes as DA and third-party logistics partners.

[a] Based on the value-based perspective of business model proposed by Teece (2010).
[b] Based on the activity system perspective of business model proposed by Zott and Amit (2010).

FIGURE 1

Data Structure for Strategies Used by Jumia to Fill the Voids and Adapt Amazon Business Model to the African Market, 2012-2017 (Output of Data Analysis Phase 3)

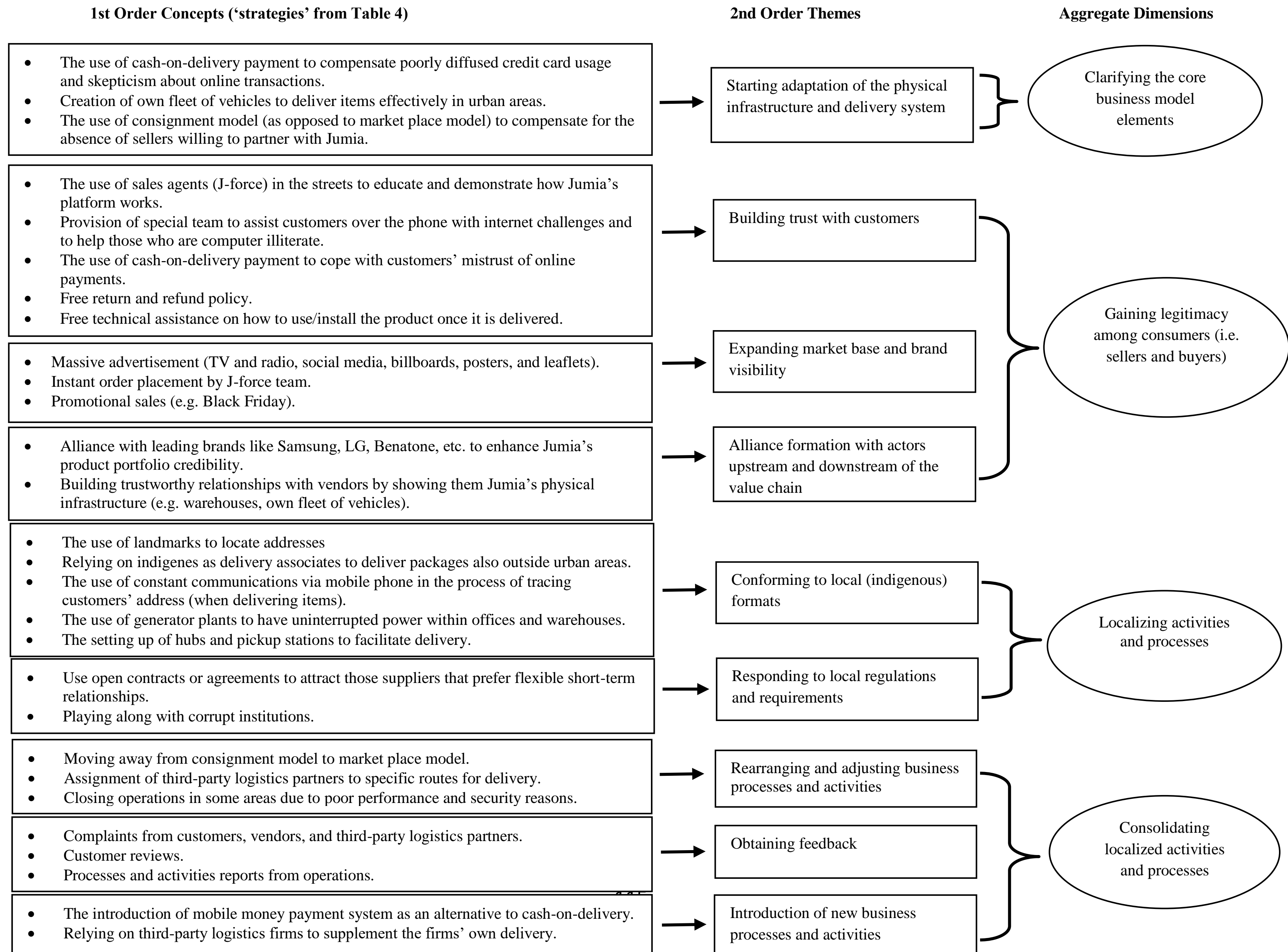
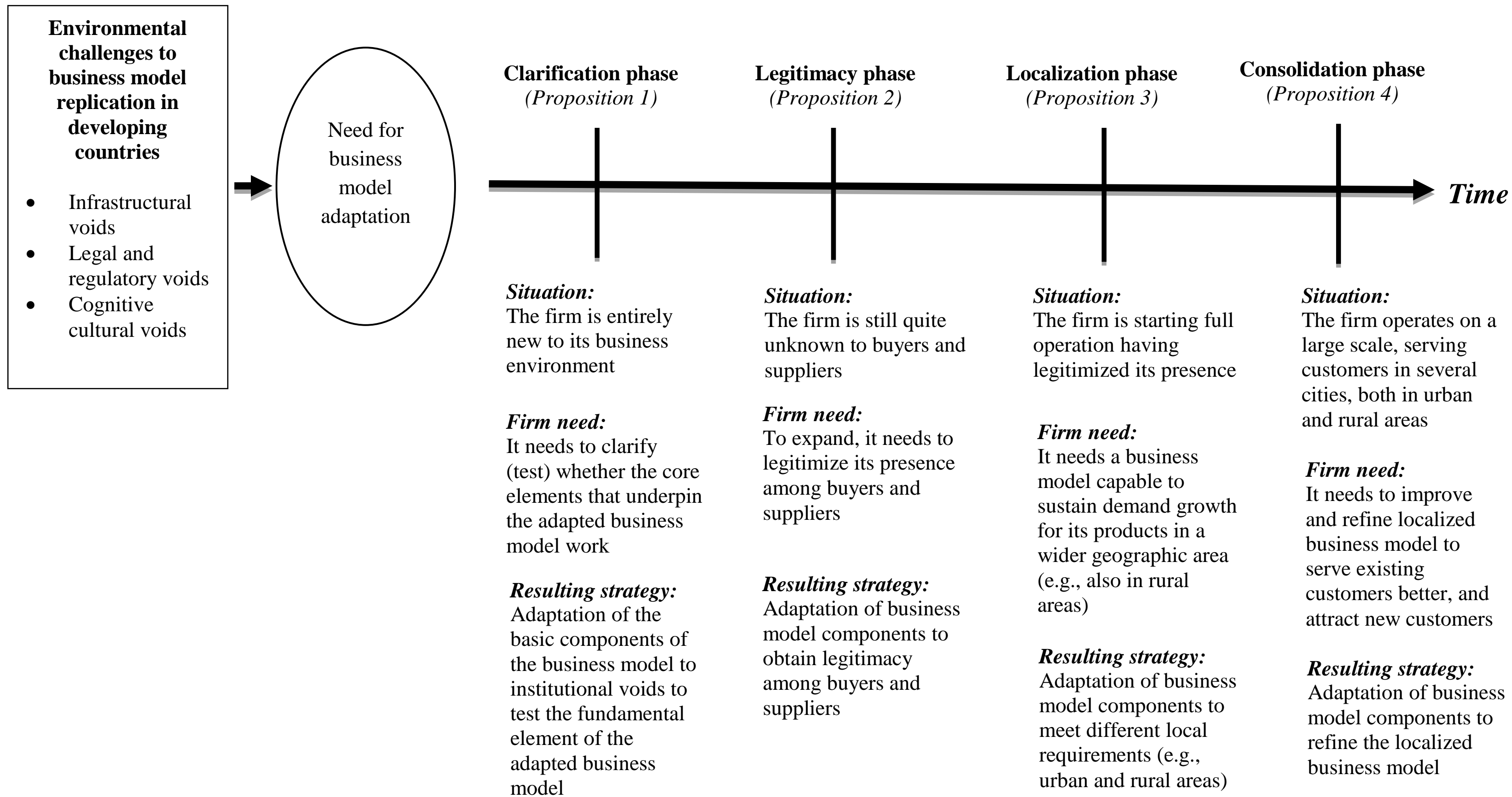


FIGURE 2
A Process Model of How a Newly Established Firm in a Developing Country Adapts a Business Model Designed for Developed Countries to Institutional Voids



INSTITUTIONAL VOIDS AND FIRMS' RESOURCES COMMITMENT IN EMERGING MARKETS: A SYSTEMATIC REVIEW AND FUTURE RESEARCH AGENDA

Abstract

The impact of institutional environment on firms' strategic decisions such as resource commitment in host country has been examined in strategy and international business literature. Yet, the current state of knowledge about *how* the institutional environment affects firms' resource commitment in host country is equivocal. This paper systematically reviews the current state of the institutional voids – resource commitment literature, synthesizes extant findings and theoretical frameworks, identifies significant gaps and develops an agenda to guide future scholarship in this important domain of research. Altogether, this paper structures institutional voids and resource commitment research into salient themes to help scholars scope the field and explore value-adding avenues to further our understanding of internationalization decisions.

Keywords: institutional voids, institutional environment, resources commitment, entry modes

1. Introduction

Research on firms' resources commitment in foreign countries has grown substantially over the past two decades (Ahsan & Musteen 2011). This is not surprising because the level of firms' resources invested in foreign markets has been identified as one of the most important conditions required for firms' survival in host countries (Hill, Hwang, & Kim, 1990; Isobe, Makino, & Montgomery, 2000). One critical issue multinational enterprises (MNEs) face when making resource(s) commitment decisions in foreign markets relates to 'how to respond to the institutional environment' (Doh *et al.,* 2017).

The institutional environment impacts significantly on entrant firms' strategic decisions and actions (Peng, 2003; Wright *et al*., 2005). For example, well-established market supporting institutions serve as the foundation on which the firms' operations thrive, while underdeveloped market supporting institutions create '*institutional voids*' (Khanna & Palepu, 1997) which have the potential to undermine the success of firms in foreign markets. Khanna and Palepu (1997, 2010) describe institutional voids as the absence or inefficiency of market-supporting institutions required to consummate transaction in an economy[11]. These underdeveloped market-supporting institutions make market transactions costly for MNEs, and therefore, affect and shape firms' strategic decisions regarding the amount of resources to commit to operation. They hamper the ease with which buyers and sellers can interact (Khanna & Palepu, 1997), leading to high costs in procuring materials, capital, information, skills, and new ideas, which in turn reduce the likelihood of efficient outcomes (Doh *et al.,* 2017). These institutional voids can characterize any type of economy but are particularly persistent in emerging markets.

[11] Institutional voids emanate from the absent or unreliable sources of market information, uncertain regulatory environment, and inefficient judicial system and strict bureaucratic process to establish and enhance business transaction. Examples of market institutions are banks, who allow firms to access financial resources and loans; market research firms, who offer firms information on competitors, suppliers and customers; courts and arbitrators, who allow firms to resolve disputes regarding law and private contracts.

In this paper, we critically review and examine the extant literature on how institutional voids in emerging markets influence entrant firms' resources commitment in those markets. We do so by organizing prior research based on their key findings, the theoretical lens used in explaining the relationship between institutional voids and resources commitment, the methods employed (i.e. how institutional voids and resource commitment have been operationalized), and lastly, the contextual dimensions in which these studies have been carried out. The motivation for this review is twofold. First, there has been a significant increase in resources commitment to developing and emerging economies including India, China, Eastern and Central Europe, and South America. For example, about half of the top 10 host economies for FDI flows in the world are made up of countries in developing economies. FDI inflows in developing economies reached a new high of $765 billion in 2015 (9 percent higher than in 2014). Out of these developing economies, developing countries in Asia remain the largest recipients of FDI in the world with a value of half a trillion dollars (UNCTAD, 2016). Firms entering these new emerging markets encounter high levels of institutional voids such as absent or unreliable sources of market information, uncertain regulatory environment, and inefficient judicial system and strict bureaucratic processes (Khanna & Palepu, 1997, 2010). Thus, there is a growing need to better explain how these MNEs deal with various institutional voids and how that reflects in their decision to commit resources.

Second, because the literature on institutional environment and resources commitment in foreign markets cuts across various fields, including strategy, international business, entrepreneurship and marketing (e.g. Li, Boulding & Staelin 2010; Li & Rugman 2007; Meyer *et al*. 2009a; Meyer, Wright, & Pruthi 2009b; Nakos & Brouthers 2002), authors have drawn on various theoretical viewpoints (Cuypers & Martin 2010; Zhao, Luo, & Suh 2004) and have employed diverse conceptualizations of institutional voids (Doh *et al.,* 2017) and

resource commitment. Consequently, there is a necessity for a review and synthesis of this vast body of literature. Previous reviews of literature have aimed at summarizing the literature on individual concepts with respect to institutional voids (see Doh *et al.,* 2017), resource commitments, for example, entry strategy research (see Brouthers & Hennart 2007; Datta, Herrmann, & Rasheed 2002; Zhao *et al*. 2004) and foreign direct investment research (e.g. Assuncao, Forte & Teixeira, 2011; Blonigen, 2005). However, to the best of our knowledge, this paper is the first to systematically combine and review extant literature by extending theoretically and conceptually fragmented body of works on the role of institutional voids in firms' strategic decisions such as resource commitment in foreign markets.

We make several contributions to extant literature on international business by reviewing and assessing the current state of research on institutional voids and firms' resource commitment in foreign markets. We respond to the fundamental question of how variations in formal and informal institutions influence economic activities in foreign markets and by so doing, delineate an outlook for future research. Our systematic review indicates that scholars do not agree about the effects of host country institutional voids on firms' resources commitment, leading to mixed results in extant literature (i.e. positive, negative and non-significant institutional voids – resource commitment relationship). The study further shows that three main theoretical lenses (i.e. institutional theory, transaction cost economics, and the OLI framework) have been used to examine this relationship and almost all of the reviewed studies apply these theories in a standalone fashion, neglecting the explanation power of combining these theories. Again, the review demonstrates that the institutional voids variable has been conceptualized and measured differently by combining some country-level governance indicators (e.g. high level of economic freedom; high political risk in an economy; low level of regulatory quality, high level of corruption, and lack of market

information). The resource commitment variable, on the other hand, has mainly been conceptualized and measured using entry modes strategies employed and technology or research and development (R&D) transfer. Finally, the review reveals that in analyzing the influence of institutional voids on firms' resource commitment in the host country, the home country institutional environment is not considered. This finding is important because home country institutional environment plays a significant role in shaping a firms' decision to expand and commit resources in foreign markets (Wu & Chen 2014) and therefore has to be taken into account to offer a near-holistic picture of the institutional void-resource commitment relationship. In general, we synthesize these findings and put forward an agenda for further studies.

The remainder of this paper is structured as follows. First, we provide a brief background of the main literature and then proceed to describe our method for the systematic review. We then present and discuss the findings from our review and note the limitations of the literature. In the final section, we conclude by discussing the implications of the review and mapping out future research directions.

2. Background literature

2.1.Institutional voids in emerging markets

One of the core concerns in international business research is expounding the role of 'context' for business operations, particularly in emerging host countries. The business environment in a country within which firms function can be examined on various dimensions: one important dimension is the set of formal and informal institutions within which firms and individuals act (North, 1990). Hence, understanding the connection between a firm's institutional environment and its strategic choices and actions is of extreme importance to the field of international business. Institutional voids possess significant potential to contribute to this relationship. This is because they help us to understand the

distinctiveness of institutional environments in emerging markets and how these environments condition how firms formulate their strategies.

Institutions serve as the basic framework constituting a set of norms, rules, and beliefs which describe how organizations shape their decisions (North, 1990). The institutional environment is imperative in the strategic decisions of multinational companies since the political, legal and administrative procedures and systems are key factors whose cost, directly and indirectly, affect and determine the attractiveness of the foreign market, as well as the amount of resources to invest. According to North (1990) and Henisz and Macher (2004), the relative cost of transaction and coordination of business activities and ownership decisions are significantly impacted by institutions. These institutions, if well developed and established, reduce transaction costs by minimizing uncertainty and establishing a stable market structure to facilitate transactions in the host country (Meyer, 2001). Khanna and Palepu (2010: 21) argue that: ‘to reduce the transaction costs that arise from the differential information between buyers and sellers and to limit potential conflict of interest, markets need institutions to intermediate between buyers and sellers of goods, services, and capital’. High transaction costs make an economy inefficient, leading to higher cost of capital, less labor mobility, and increased cost of trading. Thus, when institutions are well-developed, they provide the fundamentals that support the formation of markets. On the contrary, if institutions are underdeveloped (i.e. the absence of intermediary institutions) to effectively connect buyers and sellers, *institutional voids* are said to occur (Khanna & Palepu, 2010). The inefficiencies of these market supporting institutions are evident in emerging markets, creating distinctive challenges for business decisions regarding how much resources to commit to these markets, because the institutions modify the costs of engaging in business activities (Henisz, 2004).

In recent years, internationalization literature has increasingly focused on emerging economies (Doh *et al.,* 2017; Hoskisson et al., 2000; Kim & Song, 2017; Peng, Wang, & Jiang, 2008; Wright et al., 2005). Emerging markets have high potential due to their large market size and hence serve as investment destinations for many firms from developed economies (Khanna, Palepu & Sinha 2005). However, institutional voids characterizing emerging markets make the business climate in emerging markets different from those in developed countries. Consequently, this affects firms' decisions (especially developed country-based) to commit resources in emerging markets since the presence of voids has the potency to hamper effective and efficient market transactions (Landau, Karna, & Sailer, 2016). In other words, the lack of specialized intermediate firms or deficiencies in market-supporting institutions such as regulatory systems and contract-enforcing mechanisms in emerging markets can obstruct internationalization to these markets. This implies that a firm's decision to commit certain level of resources into foreign operations is somewhat contingent on the quality of market-supporting institutions in the host country.

2.2.Firms' resources commitment in foreign markets

Firms' resources commitment in foreign markets is a vital strategic decision and has direct implications for the success of the entrant firms. Resource commitment is defined as the set of dedicated assets (physical or human) that cannot be reallocated to different uses without incurring a cost (loss of value) (Hill *et al.,* 1990; Randoey, 1997; Vernon, 1979). In other words, resource commitment entails the assignment of "tangible and intangible entities available to the firm (department, etc.) that enable it to produce efficiently and/or effectively a market offering that has value for some market segment(s)" (Hunt 2000: 85). For instance, a firm may start operating in a foreign market through outside agents (e.g. local sales agencies, franchisees, or licensees) which require very limited commitment of dedicated

assets, but later on (due to prevailing business environment) the firm may begin to gradually add on more dedicated assets to internalize the local business operation, converting them into in-house operations. After gaining footholds in the market, the entrant firm may increase its commitment further by adding on more dedicated assets such as investment capital and/or personnel to the local subsidiary in the foreign market, making the subsidiary more 'embedded' in the local business climate (Forsgren, 1989).

By this very nature of resource commitment, every firm seeking to operate in a foreign country must put in some degree of investment in dedicated assets which may initially be depicted by the type of entry mode employed in entering that host country. For example, in the case of firms entering foreign market through outside agent such as licensing, the licensee bears nearly all the costs of establishing and serving the new market. In other words, the licensee owns almost all the revenue-generating assets. As a result, the amount of resource commitment required from the entrant firm is low, which may be limited to personnel concerned in training the licensee and afterward monitoring the behavior and action of licensee for a possible violation of the licensing agreement. On the other hand, entering by a wholly owned subsidiary implies that the MNC has to bear all of the costs of setting up and running the business to serve the foreign market. Hence, the MNC owns and controls all of the operations and revenue generating assets which consequently corresponds to a high level of resource commitment in the foreign markets. The level of resource commitment in the case of a joint venture will be placed somewhere in between the licensing and wholly owned subsidiary, depending on the degree of ownership arrangement and resource sharing between partners.

According to Harrigan (1981), resource commitments represent an exit barrier and have the capability to limit the strategic flexibility of the firm. When the level of resources invested is extensive, the MNC and its affiliates cannot exit from the foreign market devoid

of incurring significant sunk costs (for sure, sunk costs are an 'irrational' exit barrier (i.e. by definition sunk costs cannot be recovered and therefore should not be the basis for future decision-making from a purely economic perspective). However, scholars of international business suggest that sunk costs form a very real *perceptual* exit barrier which challenge and restrain the MNC's capability to respond to and contain environmental change (Staw, 1982). In the case of a lower resource commitment such as licensing, strategic flexibility is greatest and lowest in the case of a wholly owned subsidiary.

3. Method

To present a comprehensive review, we adopted a systematic literature review approach similar to that proposed by Cooper (1989) and Fink (2009). We explored online databases and article reference lists to identify all relevant articles analyzing the influence of institutional environment on firms' resource commitment in foreign markets. We started our article search using the business source complete (EBSCO), Scopus, and Web of Science databases. We chose these databases for their comprehensive coverage, indexing of important scholarly business, management and economics journals. Drawing on keywords and article titles, we made search strings to find articles which included at least one resource commitment and one institutional voids dimension keywords. Again, because firms' resources commitment and institutional voids in foreign countries have been conceptualized differently, we identified relevant articles using key terms such as 'entry modes and institutions', 'foreign direct investment and institutions', 'technology or R&D transfer and institutions'. The institutional void variable was also varied using keywords such as 'economic freedom', 'political risk and stability', 'regulatory quality', and 'corruption' in searching for the relevant papers.

To ensure complete coverage of this research and to avoid the possibility of overlooking relevant studies by simply searching with index terms or keywords in the

electronic databases, we also carried out snowball search (Greenhalgh and Peacock, 2005) by searching the bibliographies of all identified articles for further studies of relevance. These search procedures resulted in a total of 346 articles. The studies eligible for inclusion in this review had to meet the following inclusion criteria. First, the study must directly examine the influence of institutional voids on firms' resource commitment, for instance, how legal restrictions in host market affect the amount of resources (captured as the type of entry mode) deployed into that market or how the institutional requirement or configuration in foreign market influence FDI inflows into that country. Second, the study must be published in a peer-reviewed journal, and third, it must be published in English. Therefore, our review excludes books, book chapters and other non-refereed publications, and papers that focus on foreign entry modes, FDI inflows, and technology transfer in general which have no direct link with the institutional environment.

In the end, we accepted 22 articles from 15 peer review journals for our final review: 19 were empirically based, 2 were theoretical, and 1 was a meta-analysis. Table 1 gives a list of the peer review journals and the number of studies from the journal included in the review. Following literature (see Brouthers & Hennart, 2007; Canabal & White, 2008; Coviello & Jones, 2004), we content-analyzed each study in terms of key findings, theoretical framework employed, key variables (i.e., operationalization of both dependent and independent variable) and contextual dimensions (i.e., geographic focus in terms of home or host markets, developed versus developing markets, industry, etc).

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4. Results

This section presents the findings of our systematic literature review. First, we present findings on the effects of institutional voids on firms' resources commitment. i.e. how

institutional voids influence firms' resource commitment in foreign market. Second, the main theoretical frameworks used for explaining the relationship between institutional voids and firms resource commitment in extant literature is presented. Third, data and methodological issues related to the measurement of institutional voids and resource commitment employed in prior literature are presented. Finally, we report the contexts in which these issues have been discussed in the existing literature.

4.1.The effects of institutional voids on resource commitment

Our review shows that authors do not agree on the relationship between institutional voids and firms' resources commitment, hence, the literature reports mixed results as shown in Table 2. On one hand, some authors (e.g. Chang *et al*., 2012; Delios & Beamish, 1999; Heyman and Tingvall, 2015; Meyer & Nguyen, 2005) advance arguments for a positive linear relationship between institutional voids in the host country and firms' resource commitment. The relevant causal argument provided is that, as institutional voids in a host country intensify, MNCs tend to increase the recourses committed in operations in the host country since the rising levels of institutional voids cause transaction costs (which is related to the cost of finding, negotiating and monitoring partners) to increase. These institutional voids create opportunistic behaviors due to the asymmetry of information between the entrant firm and its business partners in the host country (Casson, 1997; Meyer, 2001). As a result, the foreign entrants (particularly firms from developed economies which have established their operation on the pillars of good market-supporting institutions and intermediaries in their home countries) may invest significant amount of resources and efforts (e.g. in search of accurate and reliable information) in order to overcome the institutional void in the host country (Tong, Reuer, & Peng, 2008).

On the other hand, several authors (eg. Álvarez & Marín, 2010; Brouthers & Brouthers, 2003; Lou, 2001; Morschett *et al*., 2010; Yiu & Makino, 2002) have marshaled several

opposing arguments suggesting that the institutional voids-resource commitment relationship is negative. The logic of their arguments is that when the institutional environment in the emerging economy is weak or underdeveloped, operations become too risky and costly (Meyer *et al*., 2009; Yiu & Makino, 2002), hence entering with a higher resource commitment entry mode (such as wholly owned subsidiary) is not beneficial and therefore entrant firms may choose a lower resource commitment entry mode (such as joint venture) since this will allow the entrant firm to access vital resources of the local firms, including resources such as networks that may contribute significantly to neutralize peculiarities of the weak institutional environment (Delios &Beamish, 1999).

Nonetheless, the need for a lower resource commitment mode (such as joint venture) may decrease with the strengthening of the institutional framework (Meyer, 2001; Peng, 2003; Steensma *et al*., 2005) in a host country. For instance, in a situation where the regulatory environment in an economy is well developed and enforced, entrant firms face fewer restrictions and less red tape bureaucratic procedures in acquiring permits and licenses. As a result, the need to capitalize on a lower resource commitment entry mode which provides the opportunity to use a local partner as interface with local authorities becomes unnecessary (Gomes-Casseres, 1990; Delios & Beamish, 1999; Peng, 2006). In the same way, a weak institutional environment in a host country increases the need for resource commitment entry mode which offers a relationship with a local partner when dealing with local authorities (Oxley, 1999; Meyer, 2001).

Some authors (eg. Ang & Michailova, 2008; Elia *et al*., 2014; Kumar, 2001; Lou, 2001) find no significant relation between the level of institutional voids in host country and the amount of resources invested in the host country. This finding is premised on the argument that the decision to commit resources in host country depends on various variables such as the strategic focus of the firm and the resource capabilities of the firm. Therefore, for

example, a firm may invest more resources in a particular host country (irrespective of the level of institutional voids) if it is part of its strategic plan to do so.

These findings have contributed significantly to the understanding of how the institutional environments in the host countries affect entrant firms' resource commitment decisions in the host countries. That notwithstanding, there is the need for more studies to address the gap of mixed results.

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4.2.Theoretical framework

Our review shows that all the articles analyzed are grounded in a theoretical framework (see Table 2). In these articles, three theoretical frameworks dominate: Institutional Theory (North, 1990; Scott, 1995), Transaction Cost Economics (Williamson, 1985, 1991, 1998), and the OLI framework (Dunning, 1988, 1993).

4.2.1. Institutional theory

As illustrated in Table 2, institutional theory is the most widely used theoretical perspective in understanding the question of how the institutional environment influences firms' resource commitment decisions in foreign countries. This is not surprising since institutions serve as the main 'pillars' on which strategic actions are established and supported. The basic logic of the institutional theory is that the institutional environment in a country affects a firm's scope of action and strategy because the institutional environment reflects the ''rules of the game'' (Brouthers & Hennart, 2007) based on which firms must behave and conduct their operations. Hence, firms' strategic decision such as the amount of resources to invest in host country is shaped by the level of institutional development in the host country.

Institutions are classified into formal and informal institutions (North, 1990) with different implications on the set of actions and strategies firms must take. While informal institutions primarily represent the patterns of individual behavior and actions in a certain cultural domain, formal institutions represent the political rules or legal regulations and decisions necessary for establishing a balanced society (Peng, 2000). Scott (1995) classifies a country's institutional environment into three dimensions: regulatory, cognitive and normative dimensions. The regulatory dimension signifies the rules and laws accountable for the stability of society. The cognitive dimension contains the cognitive structures and mechanisms in society which are always taken for granted and lastly, the normative dimension covers the social and cultural values, and norms in a society (Yiu & Makino, 2002). These dimensions have led to various conceptualizations of institutional voids in extant literature as shown by the reviewed studies (which we discussed in detail in the methodological approach section). Despite the diverse conceptualization of institutional voids in host country, the institutional theory has been employed in providing theoretical understanding about how and why firms commit different levels of resources in host countries with different levels of institutional voids.

4.2.2. Transaction cost theory

Transaction cost theory is the second most widely used theoretical perspective for offering theoretical understanding about the relationship between institutional voids and firms' resource commitment. The fundamental underlying principle behind the transaction cost theory is that companies need to invest resources to create and establish governance structures which minimize costs and inefficiencies related to entering and running operations in foreign markets (e.g., Hennart, 1989; Williamson, 1985). This implies that firms adopt certain organizational structures (which represents certain degrees of resources committed in foreign markets) in order to reduce the cost of controlling and monitoring operations in foreign markets.

Transaction costs are made up of the costs of finding, negotiating and monitoring partner firms (Agarwal & Ramaswami, 1992; Erramilli & Rao, 1993; Makino & Neupert, 2000; Williamson, 1985). Scholars of the transaction cost theory maintain the argument that the costs of finding, negotiating and monitoring the behavior of prospective partners influence resource commitment and entry mode (Agarwal & Ramaswami, 1992; Taylor et al., 1998; Williamson, 1985). The underdeveloped market supporting institutions in the foreign market may increase these costs in finding and/or negotiating a contractual agreement either (1) because of the inability to estimate and include all contingencies and requirements in the agreement, or (2) because of the difficulties to negotiate a fair price as a result of problems with information asymmetry (Taylor, Zou, & Osland, 1998; Williamson, 1985).

4.2.3. OLI framework

The review further showed that some authors (see Kumar, 1996, 2001; Sanyal 2004) use the OLI framework by Dunning (1988, 1993) to offer an explanation for their argument about how the institutional environment conditions a firm’s decision to commit resources into foreign markets. The OLI framework is premised on the idea that firms’ internationalization decision is conditioned by three sets of factors: ownership-specific (e.g. including firm size, firm’s international experience, and the firm’s technological capabilities), location-specific (e.g. materials availability, market potential, legal restrictions, investment risk and uncertainties), and internalization (e.g. internalization cost stemming from the lack of control over the firm’s operation in foreign markets, and/or the costs of finding and negotiating with a partner).

Central to the arguments of these authors (see Kumar, 1996, 2001; Sanyal 2004) is the explanation that, MNEs’ decision to increase resources in foreign country by internationalizing the distribution of R&D activity is dependent upon, among other things, the location-specific factors such as the extent and nature of legal regulation governing

intellectual property right and the resources prevailing in the country for carrying out technological activities (Kumar, 1996, 2001). In other words, the regime of intellectual property, among other policy mechanisms in the host country is also an imperative factor in MNEs ability to locate R&D activities and investments in foreign countries. The application of OLI framework by these authors has contributed immensely to the understanding of how institutional dimensions such as the level of development of intellectual property regime in foreign country affects MNEs' resource commitment (in the form of location of R&D activities overseas). But, the OLI framework was applied in a standalone manner (see Kumar 1996; 2001; Sanyal 2004), limiting the comprehensive understanding of the impact of institutional dimension such as intellectual property right protection in host country on firms' decision to locate R&D investment to these host countries. Since, the quality of intellectual property laws in a host country may have multifaceted effects on various components of market transaction (e.g. may increase or decrease transaction cost and risk of operating in such market, or may create a new set of certain instructional requirements), a combination of different theoretical perspectives is necessary to provide a compressive reasoning concerning the impact of the instructional environment on firms' resource commitment decision in foreign markets.

In sum, the findings on the theoretical perspective show that three main theories (i.e. institutional theory, transaction cost theory and the OLI framework, see Table 2) have been used to offer theoretical explanation for the relationship between institutional voids and firms' resource commitment but almost all these theories have been applied in isolation, neglecting the explanatory power that combining these theories may possess. Very few of the reviewed papers (Brouthers, 2002, 2013; Morschett *et al.*, 2010) combine the institutional and transaction cost theories to explain how institutional voids influence firms' decision to commit resources in foreign markets. Hence further studies are warranted to combine these

theories to explain the institutional voids - resource commit relationship because institutions provide the structure in which transactions occur (North, 1990). (i.e. the transaction cost theory assumes the existence of institutional structures that support firm actions). Therefore, by combining these theories authors are able to provide insightful theoretical arguments for the relationship between how the institutional context shapes firms' investment commitment decisions.

4.3.Methodological approach

In this section, we focus on how extant literature has conceptualized and operationalized the institutional voids and resource commitment variables. Table 3 gives details of all the various ways in which both institutional voids and firms' resource commitment have been measured in the reviewed studies.

4.3.1. Institutional voids variable

The review showed that institutional voids in host country have been operationalized in many ways: (1) governance indicators (i.e. level of economic freedom; degree of political risk and stability; level of regulatory quality, and level of corruption) (Álvarez & Marín, 2010; Ang & Michailova, 2008; Brouthers & Brouthers, 2003; Chang *et al*., 2012 ; Demirbag et al., 2010; Elia *et al*., 2014; Hernández & Nieto, 2015; Huang & Sternquist, 2007; Slangen & Tulder, 2009), (2) level of development of intellectual property laws in a host country (Delios & Beamish, 1999; Heyman & Tingvall, 2015; Kumar 1996, 2001 ; Lou, 2001; Sanyal, 2004), (3) level of legal restrictions in host countries (Brouthers 2002, 2013; Morschett *et al*., 2010), (4) Institutional environment (i.e. internal institutional pressures, coercive pressure from regulative institutions, normative pressures from normative institutions, cognitive pressures and market supporting institutions) (Arslan 2012; Meyer *et al*., 2009;Yiu & Makino, 2002) (5) bribery index (Demirbag *et al*., 2010), and (6) degree of accessibility of scarce resources in the host country (Meyer & Nguyen, 2005).

In general, majority of the reviewed papers measured institutional voids by using the governance indicators variables and the level of intellectual property rights development in the host country. While authors have used the governance indicators (usually related to a country's economic freedom and institutional development) to represent the strength of market-supporting institutions in host countries as proxies for institutional voids, these indicators somewhat do not essentially reflect the extent to which an entrant firm *perceives* its industry in a host country to be affected by voids in the institutional environment (Orr and Scott, 2008). This creates an important gap (relating to the operationalization of the institutional voids variable) in the literature, which merit further research.

4.3.2. Firms' resource commitment variable

The findings from the review indicate that, firms' resources commitment in foreign market have been operationalized and captured in different ways: (1) entry mode used in entering the foreign market (e.g. Brouther, 2013; Elia *et al*., 2014; Chang *et al*., 2012; Meyer *et al*., 2009; Meyer & Nguyen, 2005), (2) the level of technology or R&D transfer to the host country (Kumar, 1996, 2001 ; Lou, 2001; Sanyal, 2004), (3) the level of foreign direct investment (FDI) in the host market (Hernández & Nieto (2015) (see Table 3 for details of these measures). Each of these conceptualizations represents different degrees of resource commitment in foreign countries, i.e. each requires a set of dedicated assets that cannot be redeployed to alternative use without cost. Specifically, the studies mainly captured the amount of resource commitment in foreign market by simply using the type of entry mode (usually a dummy variable) employed in entering the host country but not the actual 'value' of resources invested in the host country. The only exceptions are the few studies (Kumar 1996; 2001; Sanyal 2004) which employed expenditure on R&D to capture resource commitment in terms of technology or R&D transfer. The lack of measure for resources commitment in foreign markets in terms of actual value of investment made in host country

creates a relevant research gap in the measurement of the resource commitment variable in the host country.

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4.4.Contextual dimensions

In order to provide a comprehensive understanding of the relationship between institutional voids and resources commitment in extant literature, it is paramount to understand the contextual dimension in which these studies have been carried out since the study context has direct implications on the relationship ascertained. In this section, we focus on the contextual dimensions of home/host country and developed/emerging economies. i.e. in which context (home versus host; developed versus emerging) have the studies analyzing the impact of the institutional environment on resources commitments focused on?

Our review shows that studies examining this topic have mainly focused on the host country institutional environment while neglecting how the home institutional environment influences the entrant firms' resource commitment decisions in foreign markets. This is surprising because the home country institutional environment shapes firms' decision to expand and their propensity to commit resources in foreign markets (Wu and Chen, 2014). For example, the more developed an institutional environment in the home country, the more likely there will be less government intervention, minimized transaction costs, effective contract enforcement and an increased market efficiency. Accordingly, MNEs' expansion and commitment of resources into a foreign market are facilitated. Therefore, the question of how institutional development in both home and host country jointly shapes firms' decisions to commit resource in host country remains a very important question to answer.

5. Discussion and future research directions

Firms strategic actions such as resource commitment in foreign market has been a topic of international business research for several decades, and the issue of how the institutional environment in the foreign market shapes the entrant firms' decision has been one of its central questions. In this paper, we sought to review, synthesize and extend this body of literature. By doing so, we hoped to provide a succinct view of the relationship between institutional voids and firms' resource commitment in host country and help future research to push the current research agenda further by identifying gaps in the literature and new promising areas for study.

We reviewed literature on institutional voids and resource commitment in foreign markets for their key findings, theoretical perspective employed in explaining how the institutional environment influences firms' resource commitment in foreign markets, methodological issues regarding how the institutional voids and resource commitments have been operationalized, and the contextual dimensions in which these studies have been carried out. This review indicates that researchers do not agree about the relationship between institutional voids and firms' resource commitment in foreign markets. i.e. the literature reported mixed results: positive, negative, and non-significant. On the theoretical frameworks used to offer explanations for the relationship obtained, the study reveals that three main theoretical frameworks have been used: the institutional theory, transaction cost theory and OLI framework.

The review further shows that both institutional voids and resource commitment in host country have been conceptualized and measured using various proxies as explained earlier: (1) institutional voids have mainly been captured and measured using a combination of governance indicators. However, these proxies do not fundamentally reflect the manner in which an entrant firm's industry in a host country is affected by voids in the institutional

environment. (2) Resource commitment has been measured in three different ways. i. e. (i) entry mode used in entering the foreign market, (ii) the level of technology or R&D transfer to the host country (iii) the level of foreign direct investment (FDI) in the host market. However, in all these measurements of resource commitment (except the level of technology or R&D transfer to the host country), not the actual value of investment made in the host countries is used. Finally, the findings indicate that researchers have primarily focused on host countries' institutional environment and how it impacts on the decision of the entrant firm to invest in the host country, neglecting the question of how a firm's home country institutional environment affects the firm's decision to invest and commit resources abroad.

We identified some areas that arise as promising avenues for future research. First, the literature review revealed mixed findings regarding the relationship between institutional voids and firms' resources commitment. These findings have contributed significantly to understanding the institutional environment-firms' resource commitment relationship in host country. Yet, there are still conflicting results which represent a relevant gap in the literature and this demands further research be aimed at solving this contention of inconsistent results about the relationship between institutional void and firms' resource commitment. The second research lacuna that this review identified relates to the theoretical framework employed by authors to provide explanation to their hypothesized relationship(s). The study confirms that authors used three main theories (i.e. institutional theory, transaction cost theory and internationalization theory) and majority of these authors used these theories in isolation to ground their arguments: very few authors combine both the institutional and transaction cost theories to put forward their arguments about the relationship between institutional voids and firms' resource commitment. The effect of institutional environment and for that matter, the institutional voids on business decisions and action in a market economy is a complex phenomenon and may require a multifaceted theoretical approach in

providing a sound theoretical argument. Hence, further studies which merge these theoretical lenses together are necessary to provide a deeper theoretical understanding of the relationship.

Besides integrating theories, other theoretical frameworks which are not captured in this study, such as agency theory (Jensen and Meckling, 1976), could be useful for examining the institutional void-resource commitment link. For instance, due to weak institutions, corporate governance is weak and agency problems are prevalent in emerging countries (Liedong and Rajwani, 2017). This could render non-equity entry modes such as exporting, licensing and franchising less viable because of the difficulties an MNE will encounter when trying to control local or foreign partners in emerging countries. There is, therefore, an urgent need not only for cross-fertilization of theories but also for a broader scope of theoretical frames used to investigate how institutional voids affect resource commitment in foreign markets.

Third, this review highlighted the need for more research on the operationalization of both the institutional voids and resource commitment variables. The institutional voids variable has primarily been measured by combining various indicators related to a country's economic freedom and institutional development usually collected from secondary sources (e.g., Chan, Isobe, and Makino, 2008; Meyer *et al*., 2009) such as, international development and financial associations, for example, the World Bank and International Monetary Fund. Still, these indicators do not necessarily reflect the extent to which an entrant firm *perceives* its industry in the emerging market to be affected by voids in the institutional environment (Orr and Scott, 2008). Consequently, the call for further studies to use different measures of institutional voids is important. One of the ways to do this is to survey firms to understand the extent to which certain voids in emerging markets posed as constraints to them.

In the case of the resource commitment variable, the review indicated that not the actual values of resources invested in host country were used but instead the type of entry mode used in entering the host country (which are usually captured as dummy variable). Studies have shown that these entry strategies (i.e. wholly owned subsidiary, joint venture, licensing and franchising, and exports) represent different degrees of resource commitment in host countries (Anderson & Gatignon, 1986; Hill *et al.,* 1990) (i.e. wholly owned subsidiary has the highest level of resource commitment followed by joint venture. Exporting has the least level of resource commitment whilst licensing and franchising falls between joint venture and export). In fact, these entry modes do not necessarily reflect the actual amount or value of resources invested. For example, a joint venture initiative may involve more resource commitment than a wholly owned subsidiary depending on factors such as the nature of business and the type of industry the firms operate in. This suggests that one of the better ways to capture resource commitment is the use of actual value of resource invested.

Further, the review showed that there is a total neglect of the home country institutional environment. All the reviewed studies mainly centered on how the host countries' institutional environment impacts on entrant firms' decisions to invest in the host country. While the host country's institutional environment significantly shapes the entrant firm's strategic actions, the home country's institutional environment equally plays a significant role in the entrant firms' decision to enter and invest in the host country. Therefore, the question of how both home and host countries' institutional environment influence a firm's resource commitment in the host country remains a very germane issue to be addressed in future research.

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Table 1. list of journals and the number of studies included the review

Journal	Number of studies
Journal of Management Studies	4
Strategic Management Journal	2
Management International Review	2
International Business Review	2
Journal of International Management	2
Journal of Management & Governance	1
Journal of International Business Studies	1
Journal of Business Research	1
Global Strategy Journal	1
World Development	1
Research Policy	1
Journal of Intellectual Capital	1
Organizational Science	1
B.E. Journal of Economic Analysis & Policy	1
Journal of World Business	1
Total	**22**

Table 1. The relationship between institutional voids in the host countries and firms' resource commitment.

Author(s) and year of publication [a]	**Main findings (Proposed theoretical argument)**	**Sign of the relationship (obtained findings)** [b]	**Theoretical framework**
Heyman and Tingvall (2015)	Better contracting institutions favor offshoring investments	Positive	Institutional theory
Hernández & Nieto (2015)	Firms will be more likely to prefer entry modes requiring a lower level of resource commitment in host countries with weak regulatory institutions than home country	negative	Institutional theory
Elia *et al*. (2014)	The higher the quality of political and market infrastructure in the host country, the lower the probability of outsourcing foreign functions to third-party providers (because of the lower need to limit exposure and to be able to quickly disinvest)	Not significant	Transaction cost theory
Brouthers (2013)	Firms entering markets characterized by high legal restrictions tend to use joint ventures as opposed to wholly owned subsidiary	Negative	Institutional theory and transaction cost theory
Chang *et al*. (2012)	MNCs tend to choose joint venture as oppose wholly owned subsidiary as entry mode when governance quality in the host country is good and vice versa	Positive	Institutional theory
Arslan (2012)	Propositions: MNEs prefer WOS in response to high internal institutional pressures for conformity. MNEs prefer JV in response to high coercive pressures from the regulative institutions. MNEs prefer JV in the in response to high normative pressures from the normative institutions. MNEs prefer in response to the presence of strong market supporting institutions in the host country.	n/a[c]	Institutional theory
Álvarez and Marín (2010)	High institutional voids in host economies foster export as opposed to equity-based entry modes	Negative	Institutional theory
Morschett *et al*. (2010)	Firms prefer to enter a host country with high level of legal restrictions (high level of institutional voids) with joint ventures as against wholly owned subsidiaries	Negative	Institutional theory, transaction cost theory

Demirbag *et al*., (2010)	In markets where "law and order uncertainties" are high, firms will select joint ventures over wholly owned subsidiaries. he higher the pervasiveness of corruption, the more likely foreign investors will be to choose a joint venture over a wholly owned Subsidiary.	Negative	Institutional theory
Meyer *et al*. (2009)	Firms enter emerging economy with stronger market supporting institutions (low institutional voids) by greenfield or acquisition (as oppose joint venture)	Negative	Institutional theory
Slangen and Tulder (2009)	The lower the target country's overall governance quality, the more likely that an MNE will enter that country through an equity JV rather than through a WOS.	negative	Institutional theory
Ang and Michailova (2008)	The adoption of equity alliance mode (joint venture) against non-equity alliance mode is positively affected by levels of institutional voids	Not significant	Institutional theory
Huang and Sternquist (2007)	Proposition: the entry mode in terms of resource commitment has an inverted U shaped relationship with the strength of the rule of law in the host country	n/a[c]	Institutional theory
Meyer and Nguyen (2005)	The more developed market-supporting institutions in a region are, the more likely foreign investors are to establish Greenfield operations in that sub-national region.	Positive	Institutional theory
Sanyal (2004)	A stronger intellectual property protection in the host country induces MNCs to locate their key R&D facilities in the host country	Negative in the case of full sample (developed and developing countries); not significant in the sub-sample of developing economies	OLI framework[d]
Brouthers and Brouthers (2003)	Firms facing high environmental uncertainty in the host country prefer joint venture to wholly owned subsidiary	Negative	Transaction cost theory
Brouthers (2002)	Firms entering markets characterized by high legal restrictions tend to use joint ventures as opposed to wholly owned subsidiary	Negative	Institutional theory and transaction cost theory

Yiu and Makino (2002)	Foreign firms are more likely to form a joint venture with local partners than wholly owned subsidiary as the degree of regulative and normative pressures in a host country increases	Negative	Institutional theory
Kumar (2001)	MNCs are better placed to obviate the constraints placed by a weak patent regime by registering patents in their home countries than national firms	Not significant	OLI framework[d]
Lou (2001)	In an emerging economy, the level of governmental intervention is positively associated with the probability of choosing the joint venture mode (as oppose WOS).	Negative	Institutional theory
	In an emerging economy, the level of property right is positively associated with the probability of choosing the joint venture mode (as oppose WOS).	Not significant	
Delios and Beamish (1999)	The greater the legal restrictions on foreign equity participation, the lower the ownership position assumed in the foreign investment	Negative	Institutional theory
	The lower the level of intellectual property protection, the higher the ownership position assumed in the foreign investment.	Positive	
Kumar (1996)	MNCs may be apprehensive about locating their key R&D centers in countries with weak IP regimes. Still, MNCs do some local R&D in countries with weak IP regimes to safeguard their IP by registration of adaptations as local innovations	Negative when the host country is a developed country; not significant when the host country is an emerging economy	OLI framework[d]

[a] Articles ordered from the most recently published.
[b] While some studies have developed indicators of institutional voids that increase the higher the voids in the host country, other studies have developed indicators that work in the opposite direction. Here we refer to the sign of the relationship between institutional voids and resource commitment.
[c] Not applicable: the article is a conceptual paper
[d] focuses on internationalization of R&D activities

Table 3. Operationalization of institutional voids and resource commitment variables and their contextual dimensions

Author(s) and year of publication [a]	Institutional voids variable (in the host country)	Resource commitment variable (in the host country)	Contextual dimension [b]			
			Home country	Host country	Developed country	Emerging/ developing country
Heyman & Tingvall (2015)	Level of development of intellectual property and rule of law	Captured offshoring by using import data		x	x	x
Hernández & Nieto (2015)	Governance indicators: voice and accountability; political stability and absence of violence/terror- ism; government effectiveness; regulatory quality; rule of law; and control of corruption.	level of resource commitment captured as entry modes (export, collaborative agreements such as technology transfer and licenses, FDI)	x	x	x	x
Elia *et al*. (2014)	The level of development of institutional infrastructures measured in terms of political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption, maintenance and development of distribution infrastructure	Types of delocalization mode with different levels of control (full control of foreign functions; outsourcing of foreign functions to third-party providers)	x	x	x	x
Brouther (2013)	The level of legal restrictions in the host country	Types of entry mode with different levels of control (joint venture; wholly owned subsidiary)		x		x
Chang *et al*. (2012)	The degree of governance quality, expressed in terms of control of corruption, rule of law, regulatory quality, government effectiveness, political stability, voice and accountability and absence of violence	Types of entry mode with different levels of control (wholly owned subsidiary; joint venture)		x	x	x

Arslan (2012)	Institutional environment – internal institutional pressures, coercive pressure from regulative institutions, normative pressures from normative institutions, cognitive pressures and market supporting institutions.	ownership strategies: WOS & international JV	N/a	N/a	N/a	N/a
Álvarez and Marín (2010)	The degree of institutional voids measured in terms of the level of control of corruption, rule of law, political stability, voice and accountability, governance effectiveness, and regulatory quality	Types of entry mode with different levels of control (export; greenfield; cross-border merger and acquisition)		x	x	x
Morschett *et al*. (2010)	The degree of legal restrictions in the host country	Entry modes with different levels of control (joint venture; wholly owned subsidiary)	N/a	N/a	N/a	N/a
Demirbag et al., (2010)	Law and order and bribery index	Entry modes investment type (acquisition and Greenfield)		x		x
Meyer *et al*. (2009)	The degree of strength of market supporting institutions expressed in terms of the level of business freedom, trade freedom, property right protection, investment freedom, financial freedom	Entry modes with different levels of control (greenfield; acquisition; joint venture)		x		x
Slangen & Tulder (2009)	Governance quality dimension (rule of law, control of corruption, regulatory quality, government effectiveness, political stability, voice and accountability and absence of violence)	Entry mode (Joint venture and Wholly owned subsidiary)		x	x	x
Ang and Michailova (2008)	The degree of rule of law, control of corruption, regulatory quality, government effectiveness, political stability, voice and accountability and absence of violence	Types of entry mode with different levels of control (equity alliance mode; non-equity alliance mode).		x	x	x
Huang & Sternquist (2007)	The level of development of rule of law	Conceptual paper but the proposition revolved around entry mode (WOS, JV and franchising) in terms of resource commitment	N/a	N/a	N/a	N/a

Meyer and Nguyen (2005)	Degree of accessibility of scarce resources in the host country	Entry mode (Joint venture and Wholly owned subsidiary)	x	x	x
Sanyal (2004)	Level of intellectual property right protection in the host country.	Expenditure on R&D of majority owned affiliates of US MNCs in the host country.	x	x	x
Brouthers and Brouthers (2003)	Environmental uncertainties expressed in terms of the degree of stability of the political, social and economic conditions in the host country, and the risk of converting and repatriating income from the host country.	Types of entry mode with different levels of control (wholly owned subsidiary; joint venture)	x	x	
Brouthers (2002)	The level of legal restrictions in the host country	Types of entry mode with different levels of control (joint venture; wholly owned subsidiary)	x		x
Yiu and Makino (2002)	Regulative institutions expressed in terms of the level of state influence; normative institutions expressed in terms of cultural influence; and cognitive institutions expressed in terms of mimetic entry	Types of entry mode with different levels of control (wholly owned subsidiary; joint venture)	x	x	x
Kumar (2001)	Level of intellectual property protection (IPP) in the host country	MNC's R&D expenditures in the host country over total sales	x	x	x
Lou (2001)	Government interventions and property rights system	Entry mode (Joint venture and Wholly owned subsidiary)	x		x
Delios & Beamish (1999)	Extent of restrictions on foreign ownership and extent of intellectual property protection	Percentage ownership by affiliated firms	x		x
Kumar (1996)	Level of intellectual property protection (IPP) in the host country	MNC's R&D expenditures in the host country over total sales	x	x	x