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The Emergence of Multi-sided Platform MNEs: Internalization Theory and Networks

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The Emergence of Multisided Platform-Based MNEs: Internalization Theory and Networks

Abstract

The rise of the digital economy provides firms across the globe with unique business opportunities. Companies such as Facebook, Alibaba, and Uber are competing in a new multi-sided platform world; the primary focus of these firms, from their inception, is to provide digital infrastructure, information and technology—intangible assets that enable direct interaction or value creation across platforms by linking different user group and complementors, often at the international level. Building on data drawn from multinational multisided Platform corporations (MMPCs) operating in China, we combine insights from internalization theory and network effects in understanding the value creation of such firms. We explore the boundaries of these new “breed” of MNEs in exploiting firm-specific advantages (FSAs) and in creating new knowledge between headquarters and subsidiaries. The findings suggest that internalization theory needs to shift its focus from the ‘boundaries of the firm’ to the ‘boundaries of the local network’. By integrating their internal and external networks of knowledge in adapting their business models in host markets, this new breed of MNEs is more likely than the traditional one to gain a sustainable competitive advantage in the new information age.

Keywords: Multi-sided platform MNEs, internalization theory, digitization, Location, networks, firm-specific advantage, emerging markets

1. INTRODUCTION

The role played by digitization in shaping the current business landscape is gaining increasing recognition and significance in economic development (UNCTAD, 2018). Digitization and industry 4.0 technologies offer firms significant business opportunities to compete on a global scale through the use of digital platforms and various technologies—such as the Internet of things (IoTs), big data and analytics, robotic systems, and additive manufacturing (Chen, Shaheer, Yi, & Li, 2019; Hannibal & Knight 2018; Strange and Zucchella, 2017). Many new vibrant enterprises—such as Facebook, eBay and Uber—have emerged from the advent of the internet and digitization. In this paper, we define such firms as multisided platform companies (MPCs) that, from their inception, are primarily focussed on providing infrastructure, information, and technology—intangible assets that enable direct transactions or value creation over virtual platforms by linking different user group and complementors, extracting a significant proportion of their revenue from this process. International Business (IB) scholars have recently termed this type of firm as ‘iBusiness’ and have claimed that such firms have altered the traditional international business landscape (e.g., Brouters, Geisser, & Rothlauf, 2016; Chen et al., 2019). iBusiness firms leverage the internet and industry 4.0 technologies to interact with users based in both their home and global markets. Such platform-based firms are now present in most industries and play an important role in expanding and fostering digital innovation (Hagiu & Wright, 2015). What is particularly interesting about MPCs is that, unlike traditional firms, their value creation is not exclusively dependent on endogenous firm transaction or supply side efficiency; rather, it is mainly based on external customer input to drive demand and direct customer interaction to generate economic value through the use of platforms and industry 4.0 technologies (Katz & Shapiro, 1994; Rochet & Tirole, 2003; Hagiu, 2014; McIntyre & Srinivasan, 2017; Chen et al., 2019; Strange and Zucchella, 2017). A feature that distinguishes MPCs from outsourcing is that the direct value creation process is shifted to outside a firm’s formal boundaries (Parker et al., 2016) and that value is exclusively generated by maintaining and channelling the exchanges that take place between various participants (Chen et al., 2019). In this context, platform value creation is driven by external users from the demand-side of the economy (Chen et al., 2019). In other words, on its own, the platform has no value, nor can it deliver

value on its own or with its supply network directly to its customers like traditional firms do by performing most value chain activities. For example, Uber owns no cars; it thus relies heavily on drivers to use its platform to deliver service to its customers. Thus, the demand side effect is stronger in multisided markets; the more users join a platform, the more value can be generated through it.

Additionally, the growth of MPCs depends simultaneously on positive same side and cross side network effects (Boudreau, 2012; Parker & Van Alstyne, 2005; Srnicek, 2017; McIntyre & Srinivasan, 2017). Cross side network effects are generated when the value of a product or platform for the users on one side depends on the number of users on the other side (Eisenmann *et al.*, 2006). Such multilateral dependency between a platform and its multisided customers determines its value creation activities. Thus, while internalization may contribute greatly to explaining why the intra-firm cross-border exploitation of advantages might be more efficient than market-based arrangements, it falls short in elucidating the high dependency of MPCs on external customers and network effects to create value (Hagiu, 2014; Hagiu & Wright, 2015; Chen *et al.*, 2019). As MPCs rely heavily on their network of users and complementors—who produce complements that enhance platform value—(Adner & Kapoor, 2010), network theory may be able to shed some light on its value creation activities; this is due to the basic premise of network theory—i.e., that economic action is embedded in a network of relations (Ahuja, 2000; Dyer & Singh, 1998; Granovetter, 1992; Uzzi, 1997), and firms drive significant resources from their network partners (e.g., Ahuja, 2000).

Among traditional platform companies—such as those related to payments and advertising-supported media—MPCs deliver information and services that are instantly available to a vast number of customers with significantly reduced search and transaction costs (Dunning & Wymbs, 2001; Malone, Yates & Benjamin, 1987). The market imperfections attributed to information asymmetry, such as price determinism and information transfer, are reduced or eliminated on the internet (Singh & Kundu, 2002; Amit & Zott, 2001). Low entry barriers (Porter, 2001) and easily imitable information-based capabilities and resources (Shapiro & Varian, 1999) also push MPCs to place a higher emphasis on innovation and

leveraging knowledge-based resources and capabilities through their wider networks, rather than largely relying on exploiting FSAs.

As MPCs demonstrate a unique set of characteristics, one might expect that the conventional internalization guiding logic underpinning traditional MNEs and traditional intermediary business and information brokers may only be partially applicable to Multinational MPCs (MMPCs). However—with very few exceptions (Brouthers et al., 2016; Holm, Decreton, Nell & Klopff, 2017; Zeng and Glaister, 2016; Chen, et al., 2019)—there is a limited understanding behind the application of internalization theory and network theory to ‘new’ firms that are different from conventional MNEs (Buckley, 2016, Narula, 2012),.

Drawing inspiration from industry organization, the existing internalization scholarship has contributed greatly to our understanding of the existence of traditional MNEs. However, the new phenomenon of platform-based firms presents opportunities and challenges for the application of traditional IB theories in explaining the rapid rise and internationalization behaviours of such firms, which rely on direct and indirect network effects (e.g., Katz & Shapiro, 1985, 1994; Shapiro & Varian 1999; Parker & Van Alstyne, 2005). Many leading consultancy firms highlight the role played by the rising platform model in dominating our current business landscape and speculate that all firms will eventually become platform ones in the age of the IoTs, where physical products are being equipped with sensors capable of capturing and processing data, and then communicating them to people and other products (McKinsey, 2018). The existing IB scholarship, however, has hitherto provided limited insights into the value creation process of those platform-based firms that span national borders (Autio, 2017; Brouthers et al., 2016; Chen et al., 2019). Above all, few studies in the field of IB have integrated network based perspectives and internalization theory in an effort to understand the value creation of platform-based firms in foreign markets. Given the multi-sided nature of platform-based firms—with both direct and indirect network effects representing a much wider user and complementors base—insights drawn from network theory will enhance our understanding of the value creation of such firms in international markets (Cennamo & Santalo, 2013; McInyre & Srivinasan, 2017; Shapiro & Varian 1999).

Advancements in information technology and increases in digitization are enabling platform-based firms to connect with diverse stakeholders—which, in turn, strengthens network effects, thus improving the platform-based firms’ creation of value for their stakeholders.

Against the backdrop outlined above, research is particularly important in the context of MMPCs as these firms are largely dominating the modern business landscape. Given the MMPCs’ unique value creation process and the highly volatile virtual markets in which they operate, it is imperative for researchers and practitioners to comprehend their international behaviours and value creation. Many scholars have proposed the need for deep contextualization for both theory development and for the meaningful application of existing theory to novel contexts (Tsui, 2007; Bamberger, 2008; Whetten, 2009). The purpose of this paper, therefore, is to apply the internationalization and network theories as the guiding logics to understand MMPC value creation activities in China.

We seek to contribute to the theoretical void by exploring MMPC activities in China for two reasons. First, China is the world’s largest digital market, having surpassed the US and having recorded online shopping transactions worth US\$296.57 billion in 2013. On November 11th, 2016, the shopping initiative known as “Singles Day” generated US\$17.8bn for Alibaba alone. Due to the scale of the country’s economy and its engagement in the digital market, understanding the activities of MMPCs such as Amazon, Google, and eBay in China is a timely undertaking for both China and the rest of the world, with which it is increasingly engaged. Second, since 1998, many MMPCs—including AOL, Yahoo, eBay, Google, Amazon, Groupon, Expedia and Uber—ventured into China. Among these companies, only Amazon and Groupon are still present in the Chinese market with a combined market share of just over 3%. eBay and Google entered China in 2002 and 2006 respectively; their market shares had declined to 6.2% and 19.2% by the time they exited the country in 2006 and 2010. Uber entered the Chinese market in 2014 and sold all of its assets—including brand, business operations, and data—to a local company in 2016. This makes China an interesting research setting for academics, practitioners, and investors.

The article makes three important contributions to the extant literature on the value creation of platform-based firms in international markets. First, it draws insights from network effects theory (Katz & Shapiro, 1986, Shapiro & Varian, 1999) and documents the value creation of these firms in international markets. Second, it integrates network effects with internalization theory in understanding the firm-specific advantages of platform-based firms. Third, it provides important insights into this emerging type of firm by examining the value creation processes in the context of one of the most important emerging markets (China). Lastly, as a by-product, it contributes to the debate on the governance structure of MNEs by highlighting that hierarchical relationships between headquarters and subsidiaries may not be efficient in the context of platform-based firms; this is due to the nature of their business models and to the strong (direct and indirect) network effects that enable these firms to create value for their diverse stakeholders. This would further suggest that control and coordination processes may differ in the context of platform-based firms, where multiple stakeholders participate in a fluid ecosystem-based environment.

The rest of the paper is organized as follows. First, a literature review on internalization in relation to MMPCs is provided. Then the research method is explained. Finally, the empirical findings are presented, and the discussion and conclusions are provided.

2. LITERATURE REVIEW

2.1. Multi-sided platform firms and value creation

A small but growing number of IB scholars has attempted to investigate the widespread adoption of new digital technologies that affect the location and organisation of activities within global value chains (e.g., Ancarani et al., 2019; Alcacer, Cantwell, Piscitello, 2016; Laplume et al., 2016; Strange and Zucchella, 2017). The recent technological advancements associated with industry 4.0—including the IoTs, additive manufacturing, and robots with greater autonomy and flexibility—have fundamentally impacted business models and global business activities (Ancarani et al., 2019; Hannibal & Knight 2018; Strange and Zucchella, 2017). Enabled by digital technologies, MPCs have emerged as a new form of organization that creates value for a wider base of stakeholders (Gawer & Cusumano, 2002;

Gawer, 2014) and is able to reach unprecedented scale and expand rapidly into international markets (Evans & Gawer, 2016; Parker, Van Alstyne & Choudary, 2016). For example, Uber, which started in 2009, is now operating in 737 cities across 84 countries.

Rather than relying on strictly internal resources and endogenous transaction efficiency, MPCs depend largely on exogenous “*interactive multilateral communication between its users*” in order to create value (Brouthers, *et al.*, 2016: 517). For example, Airbnb’s value is largely driven by the scale and frequency of the market exchanges between registered room providers and consumers. The outcomes of such exchanges depend on the actions of both the firm and its customers in a joint co-creation process. Value creation activities are increasingly shifted towards networked types of firms that have the potential to provide novel and optimal value to their wider stakeholders (Gulati, 1995; Dhanaraj & Parkhe, 2006; Tallman & Koza, 2016). The scope and boundaries of any given MPC constantly evolves as new members join and operate on a ‘modular’ basis (Bharadwaj, *et al.*, 2013; Han, *et al.*, 2012). MPCs are thought to leverage open innovation to develop competitive advantages (Chesbrough, 2003a, 2003b). Value creation arises through the development of novel ecosystems of innovation through multi-industry partnerships (Boudreau, 2010; Gawer & Henderson, 2007; Gawer, 2014). MPCs utilize platform-oriented architectures in order to combine both internal and external innovations in ways that generate value throughout the value chain, and then deliver useful technologies to the market (Chesbrough, 2003a; Gawer & Cusumano, 2014). In the digital economy, firms leverage the internet as a platform that further enhances the co-creation of value with customers (Gawer & Cusumano, 2014; Tee & Gawer, 2009; Sawhney, *et al.*, 2005). Such unique characteristics have significantly enhanced the scope and type of resources that MPCs can access and utilize across different markets (Amit & Zott, 2001; Gawer & Cusumano, 2014).

2.2. Network effects and platform-based firm value creation

One of the most important features of MPCs is that, owing to the network externality effect, their value is largely influenced by the number of users (Cennamo & Santalo, 2013; Edelman, 2015; Zhu & Iansiti, 2012; McIntyre & Srinivasan, 2017). Scholars have defined the network effects in terms of the fact that “*the utility that a user derives from consumption of the good increases with the number of other agents*

consuming the good” (Katz & Shapiro, 1985: 424). Such effects are both direct and indirect (cf., Katz & Shapiro, 1985; Parker & Van Alstyne, 2005). Direct (same-side) network effects occur when “*the benefit of network participation to a user depends on the number of other network users with whom they can interact*” (McIntyre & Srinivasan, 2017: 143). This can be reflected in the example of the fax machine; as increasing numbers of people own and use fax machines, fax machine access becomes more valuable to each individual fax machine user (Katz & Shapiro, 1985). Indirect (cross-side) network effects, on the other hand, arise when, by attracting increasing numbers of one type of users, the value of a platform increases to another type that provides complementary products or services (Boudreau and Jeppesen, 2015; Cennamo & Santalo, 2013; Zhu & Iansiti, 2012). An example is provided by Apple’s IOS operating system—the operating system acts as a platform that attracts complementary products and services from third party app developers to serve its large number of customers. Such indirect network effects function like economies of scale on the demand side of the market, and will increase the value that economic agents can realize from the platform (Gawer, 2014; Gawer & Henderson, 2007). Because of this, the behaviours of MPCs operating in the wider ecosystem have been the subject of recent scholarly attention (e.g., Gawer, 2014; Tee & Gawer, 2009). External networks contribute significantly to the efficient provision of value and resultant innovation of platform based firms (Baldwin et al., 2006; Chandra & Coviello, 2010). Network perspectives have been widely utilized to examine diverse sets of phenomena such as alliances and their performance across a wide range of industries (Ahuja, 2000; Gulati, 1995; Ozcan & Eisenhardt, 2009; Wassmer et al., 2017). Scholars have highlighted the important role played by networks in enabling firms to access key know-how and fine-grained novel knowledge not readily available internally to them (Powell et al., 1996; Gilsing et al., 2008). Thus, network effects enable platform firms to benefit from diverse and superior resources, which enable such firms to create value for their stakeholders (Ahuja, 2000; Cennamo & Santalo, 2013; Katz & Shapiro, 1985; McIntyre & Srinivasan, 2017). However, the value creation of platform firms and the impact of network effects on international business, which this study aims to examine, are relatively underexplored. Conversely, although the role played by networks has been widely discussed within internationalization process theories (Johanson & Vahlne, 2009), we still have a relatively limited understanding of how platforms enable firms to leverage networks to create value

in foreign markets and of the adaptation issues these firms face in such contexts. In order to understand the value creation behaviours of platform-based firms in host markets, we both integrate network effects and draw key insights from internalization theory.

2.3. Internalization theory and MPCs.

By extending the work conducted by Coase (1937) and Hymer (1976) on FSAs, Buckley and Casson (1976) demonstrated that MNEs organize bundles of activities internally in order to develop and exploit FSAs in terms of knowledge and other types of intermediate products. The authors' paid particular attention to the issues associated with organizing external markets for new knowledge, and argued that the exploitation of an MNE's knowledge-based assets across national boundaries is often most efficiently undertaken internally within the hierarchical structure of the firm itself (Buckley & Casson, 1976; Rugman & Verbeke, 2003). This view has been further extended by a stream of IB scholars who have accentuated the relative costs and benefits involved in a firm's management and internal coordination of economic activities across national boundaries, as opposed to their external coordination through the market (Buckley & Casson, 1976; Hennart, 1982; McManus, 1972; Rugman, 1981).

The proponents of internalization theory explain the boundaries of an organization and focus exclusively on the way in which market imperfections affect MNE performance (Buckley & Casson, 1976). A wide range of market imperfections has been identified by the previous literature, ranging from risk and uncertainty to information asymmetry, to bounded rationality, externalities, and economies of scale (Buckley & Casson, 1976; Dunning & Rugman, 1985; Hennart, 1982). These imperfections are particularly salient in the markets for knowledge-based assets and capabilities (e.g. R&D); there is thus an incentive to bypass them and bring the activities under common ownership (Buckley & Strange, 2011). In a recent extension to the theory, scholars have focussed on establishing linkages with the strategic management perspective of MNEs (Rugman & Verbeke, 2003), describing differentiated network MNEs (Birkinshaw, 1999; Rugman & Verbeke, 2003), and providing a new perspective on international technology transfer (e.g., Chen, 2005). Heavily rooted in Transaction Cost

theory (TCE), internalization primarily focusses on the minimization of internal transaction costs (Buckley & Casson, 1976) and hierarchical control, optimising and protecting FSAs with the aim of circumventing market imperfections (Hymer, 1960; Rugman, 1981). Referring to Dunning's OLI paradigm framework, Ethier (1986:805) characterised internalization as the 'Caesar of the OLI triumvirate'. Rugman (1980:370) also pointed out that "*existing theories of FDI are really subcases of the theory of internalization.*"

An implicit assumption in internalization theory is that the MNEs are risk-neutral, and that the optimal governance structure can thus be determined simply by reference to the comparative costs of effecting exchanges through the market and within their hierarchies (Buckley & Casson, 1976). MNEs, therefore, have been viewed as hierarchies, whereby decentralization would be implemented only where required by efficiency considerations and following rational strategic planning (Buckley & Casson, 1976) and MNEs were entities unified by ties of control-granting common ownership (Hymer, 1976; Ethier, 1986). Consequently, most of the IB literature has adopted a top-down approach to understanding how MNEs are able to exert power and influence across their inter-organizational networks, focussing on corporate embeddedness. However, the main implications of the link between ownership and control have been criticized by many scholars and practitioners for being less appropriate in the current business landscape (Rangan & Sengul, 2009; Alcácer, Cantwell & Piscitello, 2016; Palmisano, 2006). For example, the CEO from IBM stated: "*These decisions are not simply a matter of offloading non-core activities, nor are they mere labor arbitrage. They are about y [opening] the enterprise in multiple ways, allowing it to connect more intimately with partners, suppliers, and customers*" (Palmisano, 2006: 131)

Although internalization theory has clearly demonstrated its value in understanding MNE performance in international markets, it falls short in explaining MMPCs activities for three reasons. First, internalization mainly emphasises reducing internal transaction costs while overlooking other functions a firm may perform, in addition to those that are transaction-related (Rangan & Sengul, 2009; Dunning & Wymebs, 2001; Kogut & Zander, 1993). This is particularly pertinent in the context of MMPCs, where platform transaction efficiency only partially accounts for its value creation; this, instead, mainly depends on network externality, whereby the benefits brought to a consumer by the use of a product or

service increase with the number of other users of the same or similar goods (Katz & Shapiro, 1986; Srnicek, 2017). For example, eBay's platform value is largely driven by the scale and frequency of interactions between buyers and sellers, while the critical issue for Wikipedia is to attract user participation, which consequently drives the platform's value. As a result, the outcome of this process depends on the modular actions of both the firm itself and customers in the market co-creation process.

Second, although internalization theory has provided the dominant explanation for why firms choose to exploit knowledge assets internally, it has hitherto failed to address the distinctive value creation process and the exogenous networks firms need to establish in the context of MMPCs. As these actions are partially endogenous to those of MMPCs and are partly dependent on those of market co-creators—such as customers—the ability of a firm to generate a network externality effect is often the subject of great uncertainty. We wish to note that MPCs differ greatly from traditional network collaboration, whereby the former operate on a 'modular' basis and are dynamic, as the scope of the sharing network evolves over time as new members join (Bharadwaj, et al., 2013; Han et al., 2012). Traditional network collaboration, however, often operates in a closed alliance context that privileges a centralized approach and a firm's bargaining power to ensure its ability to generate superior economic rent (Gulati and Gargiulo, 1999; Lavie, 2006).

Third, internalization theory has been criticized for its static nature, in that it offers limited explanations as to how a firm can organize its activities to generate future assets, rather than optimizing the use of existing ones (Dunning, 2000; Kogut & Zander, 1993). An overemphasis on protecting the profitable exploitation of FSAs could lead to neglecting the development of new ones (Kogut & Zander, 1993). The internet's low entry barriers and easily imitable information-based capabilities and resources have resulted in a proliferation of players and intensified rivalries in the new information age, particularly in the e-commerce sector (Porter, 2001; Shapiro & Varian, 1999). Furthermore, based upon the interconnectedness of world economies and digitization, North (2005) proposed a non-ergodic uncertainty whereby firms are unable to predict the future by extrapolating from their past experiences. Therefore, a firm's path-dependent knowledge and experience is no longer sufficient to drive its

performance. Firm-level creativity was subsequently introduced and emphasized as a key factor leading to co-evolution with the environment (Cantwell, Dunning & Lundan, 2010; Dunning & Lundan, 2010). This is particularly salient in the context of MMPCs, where the platform's ability to continuously introduce new products and services that attract local customer attention is paramount in the virtual market (Amit & Zott, 2001; Chen et al., 2019).

While many IB scholars have focussed on the boundaries within the firm through internal R&D and internal knowledge transfer to drive its innovation capabilities, Cantwell (2013) and Cano-Kollmann *et al.* (2016) have recently drawn our attention to the external networks that might contribute to two-way knowledge connectivity both within and between firms. In a similar vein, many scholars have highlighted the importance of subsidiaries developing their own competency-creating capabilities, which, in turn, demands that they become more embedded in external networks in their own localities (Birkinshaw, Hood & Jonsson 1998; Andersson, Forsgren & Holm 2002; Andersson, Dellestrand & Pedersen, 2014; Fan, Cui, Li & Zhu, 2015). As MMPCs rely heavily on external resource interaction to create value, an understanding of how MMPCs can generate future assets and create new knowledge to maintain their competitiveness across different markets is therefore crucial to adding new insights to the existing literature (Brouthers et al., 2016; Chen et al., 2019).

The discussion above suggests that the extant internalization perspectives provide only a partial explanation of the strategic activities in the MMPCs context. Many scholars have recently called for a systematic and empirical attempt to refine the existing theory to adequately capture the dynamics of contemporary IB phenomena (Buckley, 2016; Alcácer, Cantwell & Piscitello, 2016; Cano-Kollmann *et al.*, 2016). The redefined firm boundaries of MMPCs, the significantly reduced transaction, communication, and search costs, combined with the rising importance of customers, innovation, and customer-driven value creation processes have called into question our basic conception of the applicability of conventional IB theories to the new realities of contemporary MNEs, such as MPCs. We therefore aim to address this gap by investigating how internalization theory and the network-based perspective can be applied and extended to explain MPCs activities in foreign markets where they might

suffer due to their liabilities of foreignness and network outsidership (Johanson & Vahlne, 2009; Zaheer, 1995)

3 Research methods and context

We adopted a multiple case study format as it provides a more robust basis for theory building (Yin, 2003), it enables us to triangulate the collected information and to augment external validity, it helps guard against observer bias, it enables replication logic (Eisenhardt, 1989; Miles & Huberman, 1994), and it often yields more accurate and generalizable explanations than single case studies (Eisenhardt & Graebner, 2007). In our study, the subsidiary was selected as the unit of analysis.

3.3.1 Case Selection

We adopted a purposeful, rather than random, sampling procedure (Eisenhardt, 1989) in which focal cases were purposely selected to maximize opportunities to “gather the most relevant data about the phenomenon under investigation” (Strauss & Corbin, 1990, p. 181). The five MMPCs selected were eBay, Groupon, Amazon, Expedia, and Uber. We wish to note that Amazon is included as an MMPC in this study because, although it started as an online retailer that did not provide direct interaction between its suppliers and customers, it progressively evolved towards a hybrid model by which it acts as a combination of online retailer and online platform, enabling third party sellers to directly interact with customers. Table 1 provides an overview of the cases considered in the study, including year and mode of entry into China, current status in China, and number of informants.

Insert table 1 here

3.3.2 Data Collection

Research access was negotiated through personal contacts, which was considered appropriate and necessary in the context of China, where informants may not be willing to share information with unfamiliar interviewers (Tsang, 1998; Hwang, 1987). Over a seven-month period, 49 interviews were conducted with employees of the seven selected companies, 43 of which were company directors, senior marketing directors, senior product managers, and data analytics managers. As eBay and Uber had

exited the Chinese market; former senior managers were contacted and took part in the research. In order to gain a diverse perspective of the focal phenomenon, the remaining six interviews were conducted with industry experts who had extensive experience and knowledge of the Chinese internet and platform market. This approach, which combined retrospective and real time cases (Leonard-Barton, 1990), helped to mitigate bias. We chose upper-echelon managers as our main source of primary data as they held key ‘interpretational’ roles (Bennis and Nanus, 1985; Smirich & Morgan, 1982) and had ‘visibility’ of the object of inquiry (Pettigrew, 1990) with respect to the phenomena under exploration.

While we approached the organizational field of interest with theoretical constructs in mind, in keeping with Pettigrew’s (1990) directive for inductive, case-based research, we did not impose them. Rather, we considered how the detailed evidence collected might inform existing theory or any constructs of internalization and value creation through the platform. To do so, we examined how the data informed our understanding of 1) the applicability of MMPC FSAs in China 2) the development of MMPC innovative capability in China 3) the benefits of internalizing FSAs and 4) the effects of the MMPCs’ governance structures on subsidiary performance in China. This guided our semi-structured interview questions. Then, working within the emerging theoretical framework, we reconsidered the data and clarified some particular issues, which led us to refine the developing theory. We prompted our informants to provide more details when their descriptions were brief or when novel strands of narrative emerged. Additional questions were added to the interview protocol in order to probe any emergent themes or to take advantage of special opportunities which may have presented themselves in a given situation (Eisenhardt, 1989). The interviews, which lasted from 60 to 150 minutes each, were conducted in Chinese, recorded (unless disallowed by the informants), and translated into English by a professional translator. For those interviews that were not recorded, extensive verbatim notes were taken and typed up as soon as possible afterwards (Miles and Huberman, 1994). We also conducted follow-up interviews with many informants and had numerous phone calls and short discussions to confirm information and fill in gaps. We also communicated the basic findings of the research and received extensive feedback on the validity and accuracy of our descriptions. Secondary data in the form of published news and articles, as well as background papers—including strategic meeting memos that were not publicly

available—were used in order to validate and confirm the data drawn from the interviewees. We also ensured the anonymity of our informants to encourage their candour. Such anonymity was also requested by our informants because, as they simply put it, they did “not want to burn future bridges with the MNEs”.

3.3.3 Data Analysis

Following recommendations for multiple case theory building (Eisenhardt, 1989; Eisenhardt & Graebner, 2007), we performed within case and cross case analysis with no a priori hypotheses. Although we did not formulate any pre-constructed hypotheses, we did read the relevant literature tentatively to understand how the detailed evidence gathered in the field might inform existing internalization theory and the network effects in the context of our study. The patterns of our findings did not simply follow the traditional trajectory of internalization theory; rather, the three main themes that emerged from our findings illustrated how the cross-border activities of MMPCs are inextricably linked to local demand network building and entrepreneurial capabilities.

We acquired our within case evidence by taking notes and writing narratives in order to develop preliminary concepts and a rough theoretical explanation for our cases. For this purpose, we focussed on analysing the interview data and on integrating and triangulating facts from various data sources. The triangulation of archival and interview data enabled a richer and more reliable description of each case (Jick, 1979) and improved construct validity (Yin, 2003).

Once the individual case studies were complete, we performed a cross-case analysis, relying on methods suggested by Miles and Huberman (1984) and Eisenhardt (1989), to probe for alternative theoretical relationships and constructs that might fit the data better than our initial emergent theory (e.g., Eisenhardt, 1989). To preserve replication logic integrity across cases (Eisenhardt, 1989; Yin, 2003), we began this cross-case analysis after most of the data had been collected. Initially, we compared the cases to identify any common dilemmas and refine the unique aspects of each particular case. Tables and graphs were created to facilitate further comparisons for similarities and differences among our cases. In order to refresh our thinking, we took several breaks during our data analysis, using the

technique recommended by Brown and Eisenhardt (2010). We continued reading broadly in an effort to gain insights into the data (Glaser & Strauss, 1967).

As the theoretical frame became clearer, we compared it with the extant literature to highlight any similarities and differences, strengthen the internal validity of the findings, sharpen construct definitions, and raise the generalizability of the emergent theory. We also presented the inductive model to the informants, inviting their feedback and comments. These interactions were conducted through face-to-face meetings, telephone discussions, and email conversations. During such interaction, some theoretical relationships were confirmed while others were revised and abandoned. Using replication logic, we developed preliminary theories from some cases and then tested them on others to validate and refine the emergent theory (e.g., Eisenhardt, 1989). The theoretical logic for each proposition is thus typically a blend of arguments from case evidence, prior research, and stand-alone logic (Eisenhardt & Garebner, 2007). We cycled until we achieved a strong match between the cases and the emergent theory. Table 2 provides the summary of the cases.

Insert table 2 about here

4 Findings

In analysing the case evidence, we considered whether some of the established theoretical constructs at hand, such as asset specificity and conventional governance control, were useful predictors of value creation for MMPCs in foreign markets. The evidence did not point at the traditional trajectory, at least not to an extent that could justify the extensive value creation of MMPCs in China. This absence of evidence did not prompt us to discard internalization theory, but it did encourage us to widen our reach for other related explanations. Through the iteration of data and theory described in the previous section, we identified three themes to illustrate MMPC activities in China; namely, 1) multisided platform corporations and their exploitation of FSAs; 2) localized network learning to drive platform network effects and 3) continuous experimentation and customer engagement forming subsidiary entrepreneurship. These patterns are explored in more detail below.

4.4.1 Multisided Platform Corporations and Exploitation of FSAs

The dominant view of internalization theory is that the exploitation of a firm's knowledge-based assets across borders is likely to generate value creation in the host countries. Such assets, as a part of FSAs, were introduced by Rugman (1981), who brought internalization to the firm level of analysis (Chi, 1994; Narula & Verbeke, 2015). While earlier scholars emphasized the role of internal knowledge-based resources in providing advantages to the firms (e.g., Rugman, 1981; Hennart, 1982), researchers later pointed out that both the transferability and appropriability of knowledge are necessary for the existence of a firm (Foss, 1996a, b; Foss & Foss, 2005; Martin & Salomon, 2003a, b). According to this theory, the exploitation of an MNE's knowledge-based assets across national boundaries is often most efficiently undertaken internally within the hierarchical structure of the MNE itself (Buckley & Casson, 1976; Rugman & Verbeke, 2003) due the market being imperfect.

In keeping with this view, we observed the knowledge exploitation by multisided platform-based firms in the context of this study. However, contrary to the extant theories, our findings indicate that such exploitation of knowledge did not lead to value creation for platform-based firms operating in China. In the following sections, we provide a detailed account of our observations in support of our emergent theme (Eisenhardt & Graebner, 2007). In Table 2, we provide additional selected quotes to illustrate and document the robustness of this study's findings.

The eBay case illustrates the linkage between the exploitation of assets and knowledge and the limited value creation. After acquiring eachnet.com—a similar Chinese auction site—when it entered China in 2003, eBay kept its auction model, relying on online transaction fees as its major revenue stream. Despite being able to dominate the market when it first entered the Chinese market, eBay soon lost its core customer interest as its local competitors introduced a free business model with supporting communication and payment mechanisms to facilitate buyer and seller interactions. The platforms on which our study is based were unable to adapt their business models to the local context and were unable to reap the benefits of external network effects. One of our informants from eBay recalled,

“They were trying to educate the local customers and push their business with very limited adaptations to make it relevant for the local market. They forgot that their main job here was to connect and build a local interactive network from scratch. How people interact, communicate, buy and sell items online with each other. They focussed too much on taking advantage of what they had and forgot to build a customer network first.”

The Groupon case also illustrates the link between the exploitation of assets and knowledge and limited value creation. In 2010, Groupon partnered with local company Tencent, one of the largest MPCs in China, and officially entered China in 2010 under the name Gaopeng. However, due to the low entry barriers and easily imitable business model, thousands of Chinese companies were already offering online group buying services in China by the time Gaopeng started offering its own. One informant stated,

“They were hoping that replicating their previous experience would lead to a happy ending in China. Well, we have to solve the chicken (retailers) and egg (users) problem first, and there are thousands of competitors offering similar services to fight for the attention of our customers. Without a decent demand network size, we are nothing.”

Several informants noted that Groupon had failed to acknowledge the importance of understanding customer behaviours in China. Such an understanding, according to our informants, would have been crucial in supporting Groupon in building an initial customer base. This was illustrated by the following quote,

They relied too much on their own routines and knowledge without paying much attention to the local customer preferences and interaction between local retailers and customers. They forgot that we are a platform company, so if we are unable to stimulate and facilitate interactions between them (to build an initial network), we have no business.”

Why does the exploitation of FSAs, such as knowledge and technology, lead to limited value creation for MMPCs in China? Internalization scholars have highlighted the importance of exploiting FSAs in cross border contexts. The evidence presented above, however, points at a different perspective. A key

insight is that an MMPC's ability to generate superior economic rent no longer exclusively depends on the firm's endogenous or supply-side of transaction efficiency, but rather on the exogenous value creation process among its customers. In other words, it is mainly driven by network effects, whereby large numbers of customers from both the demand and supply sides create a self-reinforcing cycle. In this context, the value is not created by the MMPCs themselves, but by their customer networks. Thus, the ability to build large customer networks in foreign markets such as China plays a vital role in overcoming various liabilities. Such highly dependent relationships between platforms and customers, and among customers shift the focus from a firm-centred view to a demand-centred one. This unique value co-creation process redefines the boundaries of MMPCs and pushes MMPCs to pay more attention to the broader institutional network context in which their customers' communications and interactions are embedded. Unlike traditional industries, where MNEs have to leverage internal resources and capabilities to make their FSAs relevant to the host markets, MMPCs need to receive input from a multitude of external local market sources outside their sphere of control. In other words, compared to the traditional strategy of focussing on internal firm level efficiency, MMPCs should look beyond their own properties and focus on how to attract and receive input from external resources to drive their own value creation. Therefore, the emphasis is shifted from controlling and owning resources (Rugman, 1981; Hennart, 1982) to leveraging and mobilizing external knowledge-based resources and capabilities to drive direct value creation among users.

Additionally, as platform value is largely driven by supplier side customers directly delivering value to their demand-side counterparts, how to support external customers by exploiting FSAs and the network effect is paramount to drive platform utilization, particularly in the context of multisided platform-based firms. The findings suggest that the terms "*shared-ownership*" and "*co-ownership*" of the platform were often mentioned by managers to emphasize the new value creation process in the MMPC context. An informant from eBay noted,

"Questions such as 'How can we make money from what we have and how can we make money from them [customers]?' are the wrong questions to ask. The right questions should be 'How can we use what we have to help the sellers [on our platform] to attract more buyers, to

stimulate sales and how can we use what to have make them stronger?’ Because our destiny is completely tied up with theirs, the stronger they are and the more money they make, the stronger we will become.”

Such a strategy of embedded network exchanges leads to “size of the pie and share of the pie” (Gulati & Wang, 2003) and creates a positive network effect, which is essential in driving a platform’s value (Hagiu & Wright, 2015; Chen et al., 2019). Thus, the findings suggest that the external customer network effect plays a central role in the creation and capture of value by multisided platform firms in foreign markets (e.g., McIntyre & Srinivasan, 2017).

A second reason why exploiting FSAs such as knowledge and technology leads to limited value creation in China is closely related to the contextual knowledge. As MMPC value creation is largely driven by input from external resources and external customer interactions, the focus of attention requires a paradigm shift from concentrating on reducing internal transaction costs to concentrating on improving external network coordination. The latter is largely influenced by comparatively less developed marketing supporting mechanisms, such as the lack of a credit payment system, coupled with the uniqueness and heterogeneity of customer preferences in China. Therefore, it calls for a contextualized understanding of the local market. This shares a similar vein with the literature on location bound and non-location bound FSAs (Bartlett & Ghoshal, 1989; Rugman & Verbeke, 1992; Ghemawat, 2003). Such view is particular relevant in the context of an emerging economy, where the ‘taken for granted’ market supporting mechanisms—such as infrastructure—that are ‘invisible’ in developed economies emerged as significant factor affecting platform utilization. Additionally, FSAs largely depend on their ability to stimulate customer interactions on the demand-side, which is much more embedded in the local cultural and market context. Therefore, to drive platform utilization, FSAs need to be intimately connected with complementary assets through the external linkages and learning found within the subsidiaries based in emerging economies.

Overall, our findings call into question the explicit assumption that the exploitation of an MNE’s knowledge-based assets across national boundaries is often most efficiently undertaken internally

within its hierarchical structure (Buckley & Casson, 1976; Rugman & Verbeke, 2003). Although possession of ‘superior’ resources is the key driver for the engagement of MNEs in internalization activities, it overlooks network effects—such as customer and demand side strategies—for the creation and capture of value across borders. More importantly, network effects-based advantages are not transferable between local markets. For example, Uber’s US million user base may have little value to a consumer in Beijing. Therefore, when an MMPC enters a new market, it has to create a new local network to drive its effects.

A heavy focus on the exploitation of firm assets and knowledge through internalization—rather than one on leveraging FSAs to attract input from external resources to create a new network effect—is not sufficient to create value in foreign markets. This represents an argument that runs against the prediction drawn from internalization theory. Indeed, a distinctive characteristic of platforms is that they can facilitate harnessing the strength of external resources far beyond traditional ones. As a result, the value of MMPCs stems not just from their internally controlled assets (such as their servers or software algorithms), but from their ability to mobilize external resources. In the case of Uber, these resources include drivers, independent application developers, and users who all share valuable the information and information-based services that eventually help generate formidable strength for the company. Therefore, the way in which these external resources can be transformed through network effects is crucial to create value for the firm. Our findings thus suggest the important role played by user networks and network effects in the creation and capture of value by platform-based firms.

4.4.2 The role of localized network learning in driving platform network effects

The argument drawn from extant internalization theory is that a key success factor behind the emergence of MNEs is their ability to transfer and exploit knowledge more effectively and efficiently within their intra corporate networks than through external market mechanisms (Buckley & Casson, 1976; Rugman & Verbeke, 1992, 2003). Therefore, in order to avoid the transaction costs associated with market contracts in relation to knowledge assets, the transfer of knowledge tends to be internalized within an MNE. In contrast, we found that such one off transfer or absorption of knowledge is no longer sufficient

to contribute to the competitiveness of MMPCs in China. The managers we interviewed highlighted that, as the value creation process moves beyond the firm's boundaries, it creates greater risk and uncertainty in driving platform value. Therefore, to drive their growth, platforms need to gain more contextual knowledge and experimental skills and capabilities by leveraging much broader networks. Many informants pointed at the need for such localized organizational learning and networking to occur at a much wider network level, rather than focussing at the level of the firm or of its contractual relationship with limited strategic partners.

An illustration of this was eBay's lack of knowledge about the Chinese's market. When eBay entered China by acquiring the similar Chinese auction site eachnet.com, it simply translated its own webpage design from English to Chinese and implemented its China operations the eBay way. For example, one director commented,

“They came in with pre-set ideas and routines and it seems that they simply did not leave any space for getting to know the Chinese market and the Chinese customers. This is a very dangerous zone, especially for our business; it's not just about how efficient we are, but also about how well we know how to drive external customer interaction and online traffic”.

This was confirmed by many other informants. A manager recalled,

“There was too much emphasis on exploiting what we had and neglecting the opportunities to learn from outsiders [networks]. I am not talking about the big boys [partner firms]; I am talking about getting to know some unusual suspects; for example, local communities, agencies, or even universities.”

Many of our informants expressed the view that localized learning can be achieved not only through relational assets with direct partners, but also with indirect partners such local communities, logistics providers, and even universities. These wider networks provide important sources of knowledge that MNEs can use to create value in their host markets.

A similar example can be found in Expedia. After officially acquiring successful local travel online agent eLong, Expedia was still struggling to develop online traffic. One of our informants indicated,

“When you have a market like China—which is big, complex, and full of uncertainties—you really need to be curious and to have the urge to understand it. We were purely focussing on what we could do with a limited number of alliances and forgot about the importance of other networks that could add value for our company and customers.”

The importance of network boundaries was repeatedly emphasized during our interviews. Network boundaries have a direct impact on network externality effects, which are crucial for MMPC development (cf. Brouthers et al., 2016; Chen et al., 2019). Words such as *“often isolated”* and *“closed”* were commonly used by our informants in describing the ways in which MMPCs engaged in local learning in China. It was apparent from all interviews that a *“broader”* and *“open”* approach would have been more desirable in relation to reinforcing and gaining more innovation capabilities. The evidence revealed that, in China, MMPCs had often overlooked the role played by external networks in contributing to their innovation capabilities. One of our informants commented:

“When it comes to product/service development, we really needed to be open and close to our customers; how and why they behaved in certain ways. We were often quite confident about what we could do to attract customers and underestimated how much information and knowledge the local establishment had. Who knew our customers better than them? We were either too arrogant or too blind to do anything.”

A similar point of view was shared by Uber. Having quickly gained popularity in China through various marketing campaigns, Uber had gradually started to lose its market share to its competitors. In order to find new ways to retain and attract customer attention, Uber had then heavily focussed on creating novel ways to serve customers at its well-defined platform level. An informant from Uber stated,

“We relied on a set of algorithms to connect drivers and customers, and these algorithms did not shield us from competition. These algorithms were codifiable and transferable and could even be surpassed if you had more data than us. Our competitors were working with local traffic control offices and environmental agencies, experimenting with different ways to build

a smart city, to improve local traffic conditions, while we were still thinking about our operation in a defined box”.

The findings suggest that the internalization of knowledge by MMPCs had led to their limited innovation or knowledge generating capabilities in China. A key insight is that the low entry barriers and easily imitable information-based capabilities and resources had pressured MMPCs to continuously introduce new products and services to attract customer attention; therefore, simply exploiting their existing knowledge had no longer been sufficient to sustain their value creation. This was particularly the case for MMPCs, which could have created better value by utilizing external networks and understanding the local institutional context. This viewpoint echoed with the criticism—expressed by Kogut & Zander (1993)—that internalisation theory is rather static and offers limited explanations as to how a firm can organize its activities to generate future assets, as opposed to optimizing the use of its existing ones (Dunning, 2000; Kogut & Zander, 1993). Our informants repeatedly emphasized that localized learning needs to occur at a much wider network level, which can tap into users as well as into other external networks such as local universities and other institutions. As an informant from Amazon noted,

“There is so much valuable local indigenous knowledge and so much talent out there. However, the only talent they could recognize was someone who could speak good English. That was not right. We needed to broaden our scope to understand the value of our local network.”

These findings highlight the important role played by local national systems of innovation in the creation of value by firms in their host markets. Indeed, Narula (2012) commented that knowledge of similar institutions needs to be separated from that of highly context-specific institutions. Therefore, generating country-specific knowledge by learning from broad external networks would enable MMPCs to a gain a better understanding of local markets, which is crucial to drive platform utilization (Brouthers et al., 2016; Chen et al., 2019). This is consistent with those scholars who recognized the importance of the competency-creating role played by subsidiaries in MNE innovation (Venaik, Midgley & Devinney, 2005) and the rising importance of external networks for the value creation of MNEs (Cantwell, 2013; Cano-Kollmann *et al.*, 2016).

Within the extant internalization theory, location is often perceived to play a passive and recipient role. However, our data suggest that MMPCs could view location as a resource by creating a corporate ecosystem for the creation of new knowledge that is collectively available to partner firms. Rather than viewing innovation as a proprietary good—whereby firms have to acquire new ideas, patents, and products from the external market, often via the licensing of protected intellectual property—MMPCs should adopt a wider and broader network approach to build an ecosystem of partners; including customers, complementors, supporting companies, and even competitors. A firm’s ability to bundle its internal and external assets could create a recombinant advantage and result in superior performance (Verbeke 2009; Hennart, 2009; Narula 2012). We argue that such bundling advantage depends on a firm’s ability to embed itself in the local market network. However, MNEs often experience a liability-of-outsidership disadvantage (Cano-Kollmann *et al.*, 2016; Johanson & Vahlne, 2009). Our informants, however, pointed to a new mentality that MMPCs should adopt to overcome their liability of outsidership. For example, an informant stated,

“Rather than about how to make money through our own properties, we should think about how to use our properties to contribute to each other’s business. Once our mindset changes from how we can take advantage of this society for our own benefit to how can we make ourselves relevant to others so that everybody can benefit, people are more likely to welcome us with open arms.”

Similar views were constantly expressed by most of the managers we interviewed for this study. Such flows of knowledge within open networks can further contribute to MMPC platform utilization, particularly in emerging markets like China. This is consistent with those scholars who highlighted the importance of localized knowledge for the development of exploratory innovation by MNEs (e.g., Andersson *et al.*, 2002; Cantwell & Mudambi, 2005). This also fits well with the evolutionary theory of the MNEs, proposed by Kogut & Zander (2003), and the recent co-evolutionary view of the firm and its location (Cantwell *et al.*, 2010; Kostova, Roth & Dacin, 2008). Thus, our findings highlight the central role played by broader network partners in the creation of value by platform-based firms in emerging markets. The emphasis has shifted from “how strong I am”, which accentuates the importance

of internal resources and capabilities, to “how relevant I am to the rest of the network”, which highlights the interdependency of a firm with its broad ecosystem. These findings again highlight the importance, for platform-based firms, of local networks to gain valuable knowledge and of adapting business models to local contexts to capture value.

4.4.3 The continuous experimentation and customer engagement that makes up subsidiary entrepreneurship

In internalization theory, an implicit assumption is that MNEs are risk-neutral, and that their optimal governance structure can thus be determined simply by making reference to the comparative costs of effecting exchanges through the market and within the hierarchy of the MNEs themselves. Thus, parent MNEs often exercise control of their foreign-located subsidiaries through an internal managerial hierarchy (Buckley & Casson, 1976). However, we observed the opposite; i.e., that such singularly hierarchical and uniformly centralized structures constrain local subsidiary performance.

A good example of this is provided by Amazon. All the informants from Amazon clearly agreed that local subsidiaries had relinquished to the headquarters their right to make decisions about the allocation of their own resources in order to conduct experimentation. An informant said,

“We were constantly fighting with them [headquarters]. The competition was so intense in China that we missed so many opportunities. We needed to design a customer experience tailored for the Chinese customer. We needed to invest more, but our budget and our right to make any decision were always squashed by the top.”

A key disagreement involved which actions needed to be taken to attract online traffic volume. According to a manager, the highly unpredictable business environment required firms to take risks and try out new things. However, such entrepreneurial attitudes were discouraged by the headquarters. A manager described this as follows,

“They were too conservative and wanted to keep things as they were. But you knew for a fact that that approach would not work; well, they can tell it didn’t from the current Chinese

operation. You need to be more experimental. Everything changes so fast and nobody is safe, if you don't at least try to act fast, you die.”

Similar views were highlighted by the managers of eBay. All informants expressed their frustration regarding hierarchical control, which they suggested was not conducive to the creation of value. While eBay's local competitor had introduced a free business model and ways to alleviate buyer and seller concerns over its platform, eBay China's freedom of action was restricted. This view was shared by a manager,

“We knew that changes had to be made, we were in China and the whole market was so different from anywhere else. We had to try new things and it was very frustrating that we could not do anything but stick to the old routine.”

Many informants stated that they disagreed with the headquarters in relation to both priorities and practicalities. While the headquarters prioritized profit maximization over everything else, the subsidiaries fought to gain customer attention; while the headquarters insisted on implementing unified operations, the subsidiaries fought for the flexibility to try out new approaches. An informant said,

“They seemed to forget that, without online traffic, without transactions between buyers and sellers, your platform is worth nothing. And when your current business model is shown not to work, you don't just put your head in the sand and hope for the best, you need to innovate and try something else to get that customer attention.”

These findings highlight the importance of giving autonomy to local subsidiaries to engage in experiential learning in order to effectively organize their activities and business models in order to create value in host markets.

Another good illustration is provided by Expedia. All its informants consistently brought to our attention that long distance hierarchical control had been instrumental in hindering performance in China.

“It is not that they don't value the Chinese market but, somehow, they treated it as they did everywhere else. Our hands were tied to try new things, or even to fix the existing problems associated with routine operations.”

We noted that much debate and negotiation had taken place between the headquarters and the subsidiary; e.g., in relation to trying out new operations and to engaging in more co-participatory approaches with partners—such as hotels—to attract customer attention. However, such discussions had often ended in the headquarters' favour. An informant described the disagreement on the need to engage in more co-participatory approaches to stimulate online traffic. He recalled,

“We wanted to create a better customer experience. The headquarters believed that the offline interaction between, for example, a hotel and its customer had nothing to do with us. They couldn't have been more wrong; when anything went wrong, the customer would think, “I booked it with you guys, so you should help me sort it out.” So we had to get more involved. But they [the headquarters] disagreed. The customer experience was quite poor.”

Why do hierarchical control and centralized structures constrain local subsidiary performance? An obvious reason is that, in a world characterized by non-ergodic uncertainty (North, 2005), there is a need for continuous experimentation in the creation and adaptation of the institutions that sustain the value-creating activities of firms and business networks (Cantwell *et al.*, 2010; Buckley, 2016). As reflected in prior research on the co-evolution of MNEs and their local contexts (Cantwell *et al.*, 2010; Cantwell, 2015), those entrepreneurial approaches that allow goals to emerge and change as MNEs exploit the means under their control and engage in an ongoing process of exploration are more likely to achieve sustainable growth.

Given the benefits of experimentation, an intriguing question is, “Why did the headquarters fail to adopt more decentralized approaches to encourage entrepreneurial behaviours?” Prior theories suggest several reasons for this. One is that subsidiary requirements of very different combinations of resources and external relationships make unified management within a single differentiated MNE network extremely difficult (Rugman & Verbeke, 2003). A second reason is the assumption, made by internalization

theorists, of bounded rationality and opportunistic behaviours. Therefore, MNEs need to ensure that their subsidiaries do not engage in any self-interested behaviours (Buckley & Casson, 1976).

Our informants consistently highlighted the highly volatile and unpredictable Chinese business environment. This, coupled with the easily imitable information-based capabilities and resources, gave MMPCs no other option but to engage in governance modes that went beyond the traditional binary one of markets versus hierarchies. New value creation networks and new knowledge creation require MMPCs to incorporate external relationships to drive sustainable platform growth; an entrepreneurial mindset focussed on building networks

Overall, our data indicate that the MNEs' hierarchical structure had a major impact on their subsidiaries' responsiveness to local market demands and to greater levels of uncertainty. By merely referring to past patterns and experiences, MNEs are incapable to design and implement strategies in a non-ergodic world. Trial and error experimentation and risk taking were the only ways to embrace such fundamental uncertainties (Cantwell *et al.*, 2010). Therefore, MMPCs should evolve alternative governance structures suited to facilitate subsidiaries in being more locally responsive and in generating connected capabilities. This is in a similar vein to those scholars who accentuated the importance of entrepreneurship in the MNE context (Cantwell *et al.*, 2010; Cantwell, 2015; Buckley, 2016). The findings suggest that, in contexts characterised by low entry barriers and a strong need for continuous innovation, and in which a firm's value creation is largely driven by external resources—rather than internal ones—strategies should no longer involve rigid analysis and planning but, rather, a process of continuous experimentation and customer engagement. Therefore, static and hierarchical structures need to be replaced by dynamic and fluid networks of interconnected players. Subsidiary entrepreneurship is crucial to co-develop the market with external resources and networks, which is a radically different process from market entry mode selection decisions, which are strongly emphasised by internalization theory (e.g., Hennart, 2009). Network creation is not generally a response to the transaction costs found in existing markets; it is often carried out in pursuit of the vision of a network that has yet to emerge. This insight pushed us to reconsider internalization as the contractual and market

failure approaches explaining the existence of the MNEs, but to view MNEs as entrepreneurial and network creating firms. This view echoes the entrepreneurship and capability based theory of MNEs (Teece, 2014).

5 *Theoretical and practical contributions*

Drawing insights from the internalization and network perspectives, we examined some platform-based firms operating in China. Such firms, which have emerged on the global stage (e.g., Brouthers et al., 2016; Chen et al., 2019), present significant challenges to the existing IB scholarship, which has hitherto been focussed on understanding the internationalization behaviours of traditional MNEs. Platform-based firms offer an interesting opportunity to understand the application of the extant IB theories; in such context, the aim of this paper was to examine the value creation mechanisms enacted by platform-based firms in foreign markets by leveraging case studies of such firms operating in China.

This study provides several important contributions to the existing internalization and network perspectives. First, it suggests that internalization needs to be extended by bringing together complementary insights from both the internalization and network perspectives. More specifically, it argues that internalization theory can explain why centralised firms might wish to externalize selected activities, but remains largely silent on MMPCs, where a platform is designed to support customers from the demand and supply sides of the economy to interact with each other to drive value. Orthodox internalization theory is mainly focussed on lowering internal transaction costs and exploiting FSAs in order to counter market imperfections (Hymer, 1960; Rugman, 1981; Buckley & Casson, 1976). Our study suggests that this approach does not lead to better firm performance in the context of MMPCs. Although the key element of the FSAs possessed by MMPCs is the establishment of network effects in host countries, such networks cannot be easily transferred between countries, thus highlighting their localised nature. Rather, firms need to place more emphasis on orchestrating their internal and external resources to create network effects—which are the fundamental drivers behind platform utilization—from scratch (Brouthers et al., 2016; Chen et al., 2019). Redefining the spatial boundaries of value creation to include external customer networks, particular in emerging economies, will lead to more

value creation opportunities for platform-based firms. We therefore provide important insights by leveraging internalization theory and network effects, which have a fundamental impact on driving platform value. A large customer network broadens a user's range, attracts more complementary service developers and product providers, thus increasing the options available to users (Katz & Shapiro, 1986). Therefore, large customer networks can complement FSAs, which could create a virtuous cycle acting as an isolating mechanism that not only helps MMPCs to take advantage of network externality, but also ensures the uniqueness of MMPCs, protects them from imitation, and preserves their rent streams (Rumelt, 1984). We therefore suggest that internalization theory might be extended by bringing together complementary internalization and network aspects.

Second, our study highlights the importance of location in driving MMPC knowledge-generating capabilities. While existing internalization theory is mainly focussed on the one-off transfer or absorption of knowledge—in which location plays a passive role—this study's findings suggest the need to move beyond effective internal transfer of knowledge to broader knowledge connectivity between subsidiaries and their formal and informal external networks. This places more emphasis on the subsidiaries' capabilities to tap into local markets, including user networks to explore new knowledge suited to play an important role in creating the market and driving positive network effects in host markets. We argue that alliance capitalism, championed by Dunning (1995, 2000), needs to be broadened to allow for more open, flexible, and direct/indirect relationships with customers, partners and supporting cluster companies—a wider national system of innovation and ecosystem. Network interaction between indigenous partners and MMPC activities will stimulate local knowledge spillovers, which are crucial for MMPCs to create location bound assets that will then enable them to create value in their host markets. This is consistent with recent studies that have suggested that knowledge connectivity with broad network partners plays a role in contributing to MNE activity (e.g., Cantwell, 2013; Cano-Kollmann *et al.*, 2016).

Of course, network cooperation is not a new phenomenon. What is new is its relative significance as the new “breed” of MMPC value creation process, whereby a firm's success increasingly depends on

its ability to co-create value with customers and to tap into external knowledge-based resources and capabilities of ecosystem partners to understand the market and cope with uncertainty, which will further stimulate innovation-led growth. The combination of these factors leads us to suggest that internalization needs to shift from defining the ‘boundaries of the firm’ to defining the “boundaries of the network”; thus suggesting that network effects play a wider role in explaining the value creation processes of platform-based firms (e.g., Zhu & Iansiti, 2012). The complementarity that exists between internal and external networks can be leveraged as a great competitive advantage in the new information age (e.g., Autio, 2017; Chen et al., 2019). We extend this notion by proposing that MMPCs need to engage in localized network learning to stimulate input from external resources in order to create co-specialized assets (Pitelis & Teece, 2010). The insights emerging from this study of platform-based firms overcome the criticisms—recently voiced by many scholars—that, in general, most internalization research ignores the mechanisms associated with non-transaction activities and innovation (Rangan & Sengul, 2009; Dunning, 2001; Kogut & Zander, 1993).

Third, as a by-product, this study further contributes to the governance structure of MNEs. The conventional internalization approach entails a parent- or headquarters-driven perception of MNEs. The findings of this study suggest that traditional hierarchical relationships between headquarters and subsidiaries are not efficient in the context of platform-based firms; this is due to the nature of their business models and to the strong network effects, which play a vital role in the creation of value. In a market characterized by greater uncertainty and intensified competition, centralized decision making processes are no longer viable for MMPCs, as these firms need to rapidly adjust to changing customer demands and digitization (Alcácer et al., 2016). Many scholars have highlighted the capability-creating role played by subsidiaries (e.g., Birkinshaw, 1999; Andersson, Dellestrand & Pedersen, 2014; Fan, Cui, Li & Zhu, 2015). We argue that, in the MMPCs context—where the creation of value is largely driven by input from the exogenous resources that MMPCs possess with complementary formal and informal partners, and by a large customer base—a decentralized governance structure is needed to stimulate continuous experimentation and customer engagement. Although rule-driven behaviours are

a rational managerial response to information costs, we observe that, in highly volatile markets, a subsidiary-level decentralized entrepreneurial innovation that promotes such demand-driven entrepreneurial behaviours is shown to be superior to the hierarchical relationships which have hitherto created competitive advantages for traditional MNEs. Strange and Humphrey (2019) also pointed out that conventional internalization is heavily focussed on control—i.e., whether lead firms can control the activities they have externalized—and that the effective management of such activities may require a mix of hierarchical and market elements. With open and evolving resource networks, we argue that the resources engaged in a platform are bound together by interdependency and mutual self-interest, the possession of complementary resources and capabilities, and risk-sharing (Mudambi & Tallman, 2010). Therefore, rather than any form of behavioural control being exerted by one or the other (Zaheer & Venkatraman, 1995), MMPCs may need a form of control in which the emphasis is placed on enabling external resources to drive the value creation process, rather than on tightly controlling their behaviours.

We also make a contribution by explicitly introducing multisided platform corporations into the existing discussion centred on i-business terminology. “i-business” was often used to describe e-business companies that utilize Internet and other enterprise computer-based information system (CBIS) technologies to provide an Internet-based platform, which allows users to interact with each other (e.g., Brouthers, Geisser, & Rothlauf, 2016; Chen et al., 2019). We offer a more fine-grained approach looking at a platform that relies not just on user interactions, but depending on “the chicken and the egg” mechanism to drive supply-demand interactions between producers and consumers that are both from the demand-side of the economy. Toward this end, we therefore not only build the relevance and applicability of internalization to understand MMPCs’ strategic behaviour in host countries, but also advance the small but growing body of work that has examined the so called “i-business firms”. The unique characteristics of platform-based businesses and their associated platform ecosystems will shed more light on our understanding of IB activities of such firms.

5.4 Managerial Implications

This study also offers important insights for practitioners. As we are writing this paper, many MMPCs—such as Facebook and eBay—are contemplating expanding into/re-entering China and other emerging markets. This research provides some insights into the way MMPCs manage and exploit their FSAs, create knowledge through much broader networks, and think about alternative governance structures for the efficient utilization of their platforms. Managers need to be aware that, rather than starting from internal resources and then investigating how they can fit into a host market, they should attempt to identify the local conditions that favour resources with characteristics suited to stimulate external customer interaction. In order to obtain the local knowledge and create new one to drive platform network effects, MMPC managers should also adopt much wider and more open approaches to connect with local networks and wider national systems of innovation. By being part of an ecosystem, a firm can have more flexibility in driving its innovation capabilities and in leveraging its partners' resources to gain a competitive edge over its competitors.

We also noted the changes required to move away from traditional hierarchical governance modes to alternative decentralized and network governance ones suited to encourage entrepreneurial activities at the local subsidiary level. The many examples we discussed can also offer informative concepts and behavioural patterns that managers can use to make deeper and richer assessments of the ways in which they could manage their firms' internal and external resources to create more sustainable value. The emphasis here is no longer centred on resource ownership and efficiency but on resource accessibility and innovation across the platform environment and networks. MNEs' decisions are not simply a matter of offloading non-core activities or gaining control through different entry modes, but about proactively connecting more intimately with customers, complementors, local actors and even government to drive competitive advantage of the firm. Thus, in order to generate more value for their customers, managers need to connect and exploit resources across the ecosystem.

Platforms and platform ecosystems are giving rise to a new form of competition with a scale and complexity that challenge the traditional managerial mindset (McKinsey, 2018). As industry boundaries blur and digital and fragmented value chains emerge, they require managers to carefully formulate value

creation strategies keeping in mind multi-industry stakeholders. Platform environments and digital value chains require managers to nurture value creating partnerships within their ecosystem and to sustain trust with various transnational and trans-regional stakeholders in order to exploit value creation opportunities. Digitization and industry 4.0 technologies provide both established and small firms with opportunities to participate in the digital value chain; therefore, managers need to look beyond their focal industry and country specific advantages to virtual locations in order to identify and nurture potential partners for the creation of synergy and value across various markets. Since nurturing relationships and building trust are vital in the platform environment, managers need to develop relational skills and capabilities in order to generate more value from platform partnerships. In addition, the rise of platform firms also face legitimacy related issues in host markets, therefore managers need to pay greater attention to the social side of the platform and integrate social responsibility and sustainability practices across the platform ecosystems.

5.5 Limitations and future research directions

The investigation of MMPCs' strategic actions in China opens up several lines of inquiry for future research since the rise of platform and digitalization offer unique business opportunities to firms across the globe.

First, given the MMPC focus of this study, its findings run the risk of being idiosyncratic and not generalizable (Eisenhardt, 1989). Furthermore, the case study method, which is often used in exploratory research, has been criticized for providing insufficient bases for generalization (Chetty, 1996). In those cases in which only a small number of cases is analysed, limitations can also arise due to a lack of comparability (Perry, 1998). However, the scope of this paper was constrained by the small number of MMPCs undertaking internationalization in China, which limited our sample size. We also wish to note the importance of contextualization in the IB context. By focussing on MMPC activities in China, we extend extant internalization theory in a contextualized setting.

In order to evaluate whether the findings of this study can be replicated in other countries, we suggest future research investigating MMPCs in other transitional economies and emerging markets. The dynamic interactions of MMPCs with their extended networks are the key to achieving sustainable firm

growth (Hagiu, 2014; Hagiu & Wright, 2015); this raises the question of how MMPCs can deal with the creation of new routines and new business models in multiple, fragmented, and often conflicted institutional environments. Answering this question would provide critical insights into the co-creation of value between MMPCs and their institutional environments. Taking the local network as a unit of analysis also raises a new set of issues, such as development incentives (Casadesus-Masanell & Yoffie, 2007), knowledge transfer from local to global platform partners, as well as positioning and coordination choices (Iansiti & Levien, 2004; Gawer & Cusmano, 2002). There is also scope to examine any negative network effects on platform firm creation and capture of value (e.g., Boudreau & Jeppesen, 2015). Such studies could separately examine user and complementor networks across different sectors and their impact on the life cycles of platform firm business models and value creation in international markets. As networks play a key role in driving MMPC value, how do the effect of direct and indirect networks impact the traditional OLI or eclectic paradigm that underpins the activities of traditional MNEs? For example, as ownership advantage no longer plays a central role in driving the value creation direction of a platform, the associated sharp distinction between firm and market in defining the MNE organizational needs to change. And, if it does, should knowledge—including big data—be internalized within the MNEs or externalised? In the latter case, what new governance structure would control and coordinate value creation activities spanning beyond traditional MNE boundaries? Recently, the emergence of new technologies associated with industry 4.0—such as 3D printing and the IoTs—is having a great impact on how MNEs conduct their value chains (cf. Strange & Zucchella, 2017; Hannibal & Knight, 2018). Therefore, which set of resource and capabilities can guide MNEs and SMEs to survive in the new digital age? Future studies could pay attention to the dependency and risk issues associated with platforms.

Given the emergence of disruptive technologies associated with industry 4.0 (the IoTs, 3D printing, robotics, and artificial intelligence) and the ever more widespread adoption of such technologies, further research into the changing relationship between the internationalization of platform firms and internalization seems warranted. IB scholars need to reimagine the future of productivity and MNE development in light of the fact that the growing interconnectivity of machines, products, parts, and

humans will require new rules that define competition in the digital era (Boston Consulting Group, 2015). This also means that the existing assumptions about entry modes, lower entry barriers, and governance control and power need to be carefully considered in the new interconnected age.

5.6 Conclusion

Our aim was to apply internalization theory to ‘new’ firms that differentiate themselves from conventional MNEs—MMPCs, which rely on direct external resource interactions to create value. Internalization theory has long provided a compelling rationale for the existence of MNEs. Despite the great explanation power of this theory, we would nevertheless argue that more research is required on the changing nature of the scope of value creation to combine the insights of internalization theory with those of dynamic capabilities and of the entrepreneurial theory of the firm in cross-border contexts by comparing traditional and multi-sided platform MNEs.

We strongly advocate future IB research taking a more bold approach to explore in more depth how interconnectivity and interactions manifest themselves in headquarters-subsidiaries dynamics, and in subsidiaries-local network ones. With the rise of digitization, changing demand patterns, and the fragmentation of value chains, there is a need to examine the value creation process across value chain networks operating in multiple locations. Such studies could examine the transfer of knowledge and economic and social upgrading within such networks. We close by noting that we have made a start in articulating the key theoretical issues implicated in internalization theory in understanding contemporary MNEs such as MMPCs. We would like to point out that MMPCs are not an anomaly; rather, they represent a new chapter for IB discussion. With the increased network and data connectivity of the new industrial revolution, studying networks and ecosystems is of both academic and practical relevance because it can help us to understand and appreciate the paradigm shift occurring in the digitalized world.

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Table 1 Background Characteristics and Data Sources for Cases

MMPCs	Year of entry	Mode of entry	Number of informants	Data sources
eBay	2003	Acquisition (eachnet.com)	6	Semi-structured interviews Press articles
Amazon	2004	Acquisition (joyo.com)	7	Semi-structured interviews Reports and strategic memos Press articles
Groupon	2011	Joint venture (Tencent)	12	Semi-structured interviews Reports and strategic memos Press articles
Expedia	2004	Acquisition (elong.com)	7	Semi-structured interviews Press articles
Uber	2014	Wholly owned subsidiaries	11	Semi-structured interviews Reports and strategic memos Press articles

Table 2 Main data sources and use

Data source	Types of data	Use in the analysis (e.g., gathering, triangulating)
Semi-structured interviews	<p>March, 2016-October, 2016</p> <p>Forty-nine interviews, including 43 with informants from MPCs, including senior executives, senior operational officers, senior product managers, and senior IT engineers, and six with industry experts.</p>	<p>Gathering data regarding MPC actions in managing external value creation activities, control actions at the subsidiary and external network levels, knowledge creation and innovation process.</p> <p>Triangulating facts and data provided by informants. Gaining a better understanding of MPC activities in China.</p> <p>Gaining a real time and retrospective understanding of MPC actions.</p> <p>Revising the earlier framework, connecting new constructs with the overall context to produce a theoretical framework.</p> <p>Gaining a holistic understanding of the strategic actions enacted to manage and control firm value creation and networks in China.</p>
Archival data	<p style="text-align: center;">Internal documents</p> <p>Internal correspondence and memos</p> <p>Company newsletters</p> <p style="text-align: center;">External documents</p> <p>Press articles</p> <p>Independent management bloggers</p> <p>Media coverage</p>	<p>Triangulating informant recollections.</p> <p>Helping track external responses and coverage to organizational actions.</p> <p>Triangulating informant claims about the events and strategic actions of the organization.</p> <p>Enhancing validity of insights, better understanding MPC behaviours.</p>

Table 3 Summary of the cases

Key themes	Illustrated quotes
<p>Multisided Platform Corporation and Exploitation of FSAs</p>	<p><i>“If we don’t reach a critical mass, we are nothing. Without our supply-side customers directly delivering good service to our end consumers, we are nothing. So the question is not about how we can use what we have to make money; the questions we should be asking are: “Who are they [customers]? How do they like to interact? How can we use what we have to support such interactions? How can we stimulate such interaction? Our eyes should not be focussing inside, they should be focussing from the outside in.” (U, 02)</i></p> <p><i>“We had the same ideas and same products. We thought that how we connected with our customers in the States would work just as well with our Chinese customers. We tried to milk it too much and sat there waiting for customers to come. It is all about customer experience, which is deeply embedded in the culture and social setting. We never bothered to think about or understand what would be a good customer experience for our Chinese customers, how to solve the problems that hindered the interaction and communication process between them.” (G, 04)</i></p> <p><i>“China is a wild, wild place. We had certain ways to gain market share outside of China. Here, it is hard for them [the headquarters] to envisage the need to sacrifice profit to gain market share. The operation we have here is still quite old school; it relies too much on successful past experiences. But these experiences are exactly the weapon that is killing the Chinese operation. We need to have a bottom up approach that starts from the customers first.”(E,09)</i></p>
<p>Localized network learning to drive platform network effects</p>	<p><i>“When you have a market like China, which is big, complex and full of uncertainties, you really need to be curious and have the urge to understand it. You can stay indoors thinking about all the good ideas, but how many of these ideas will be relevant to our customers? We were not eager to learn; even with our partners in China, the conversation was mostly dominated by us, which was a joke. It is absolutely essential to penetrate into a broad network to have that holistic picture about our customers, not one just limited to a handful of what we called strategic partners.” (A, 09)</i></p> <p><i>‘If nobody uses your product/service, no matter how advanced your business is, it means nothing. China is such a unique market and we have so much to learn. We really need to broaden our learning network scope, not just rely on fixed business partners. You need to understand the world in which they [the customers] live, their way of thinking, certain behaviours that you might view as odd. This means that you need to penetrate the different local networks that have the best first-hand knowledge of who they are.’ (e, 06)</i></p>

	<p><i>“Travel is a huge market in China, not just within the country, the amount of people travelling overseas has increased significantly in the last few years and I believe this trend will continue to grow at a fast pace. People from the States and other developed countries travel in a certain way, The Chinese are different, very different. We have to place more emphasis on understanding this market, treating it as one of a kind. We need to seek information and knowledge beyond the conventional boundaries, to get more intimately connected with the local information network. You have to ‘Jie Di Qi’, which means get more grounded knowledge.” (E, 02)</i></p>
<p>Continuous experimentation and customer engagement that make up the subsidiary’s entrepreneurship</p>	<p><i>“We knew the potential this market could bring, but we didn’t know about its depth and complexity. When we dipped our toe into the water, we needed to keep testing to see how the water would react, we kept learning about the market and we had to try things out to see different ways of interacting with the market. They [the headquarters] were too focussed on short term profits. We tried to convince them that here it is a different battleground, so we needed a different strategy; but they never listened.” (G, 05)</i></p> <p><i>“We knew that changes had to be made, we were in China and the whole market was so different from anywhere else, the level of competition intensity, everybody was fighting to get that online traffic. As we understood the market more, it was very frustrating that we could not do anything about it but stick to the old routine, everything was decided for us.” (e, 04)</i></p> <p><i>“We couldn't even change certain features of our web design. We were being slowly cooked, not by the market, but by the top [the headquarters]. This kind of structure was a death sentence for us. Everything moved so slowly; well, it was like a big dinosaur. By the time the decisions had travelled down to us, it was either not feasible in the local market, or it was too late to respond.” (A, 01)</i></p>