Multinationals' value chain configuration for product diversification in emerging markets: Western firms in China

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Abstract

Purpose – This study aims to analyse how multinational corporations (MNCs) organise value chain activities to penetrate new market segments. It contributes by expanding traditional decisions regarding the vertical fine-slicing of value chain activities (whether performed internally or externally) and the consideration of resource-sharing decisions (integration or separation) for each value chain function.

Design/methodology/approach – The authors draw on primary data collected from two case study firms operating in the large emerging Chinese market: Volvo Construction Equipment AB and Epiroc AB. In-depth cases illustrate how foreign MNCs expand into new market segments and simultaneously target both the lower-priced mid-market and the premium segments in the Chinese mining and construction industry.

Findings – The results reveal that product diversification creates challenges for managers who must oversee new (vertical) value chains, often simultaneously. Beyond geography and modes of governance, managers must decide whether to integrate or separate value chain activities for the new product lines.

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The study identifies four main strategic choices for firms to address this complexity, focusing on the decision to internalise or externalise (i.e. within or across organisational boundaries) and integrate or separate value chain activities between different product lines.

Originality/value – This study builds upon the internalisation theory and recent international business contributions that focus on value chain configurations to explain MNCs' product diversification as a growth strategy in a host emerging market. It also sheds light on the choice of conducting new activities in-house or externally and elucidates firms' managerial decisions to operationally integrate or separate individual value chain activities. The study provides insights into the drivers explaining managerial decisions to configure value chain activities across product lines and contributes to the growing body of literature on MNC activities in emerging economies by highlighting that product diversification impacts entry mode diversity and resource sharing across units.

Keywords Multinational corporations (MNCs), Product diversification, Value chain configuration, Internalisation, Externalisation, Integration, Separation, Market expansion, Entry mode, Emerging markets, China

Paper type Research paper

Introduction

In the ever-evolving landscape of global business, leading Western multinational corporations (MNCs) have extended their focus beyond high-income segments in emerging economies to encompass lower-income markets. This segment, called the "mid-market" (Demir and Angwin, 2021; Zeschky *et al.*, 2011) or the "good-enough" segment (Gadiesh and Leung, 2007), embodies a realm of robust and cost-effective solutions, offering basic functionality at affordable prices (Agarwal *et al.*, 2017; Zeschky *et al.*, 2011). This strategic shift represents a departure from Western MNCs' traditional tailored premium solutions. In their pursuit of this diversification, MNCs must recalibrate their business models and value chain activities to incorporate a new product line, which is distinct in terms of pricing, production processes, raw materials, performance, technological sophistication and target customer segments (Winterhalter *et al.*, 2016). The critical questions of whether to leverage existing operations or build new ones and whether to conduct these activities internally or externally hold the keys to their success.

The existing international business (IB) literature has provided valuable insights into why and how MNCs operate in emerging markets (Luo *et al.*, 2019), adapt strategically in response to dynamic market conditions (Hoskisson, 2000; Palepu and Khanna, 2010) and cultivate requisite capabilities. However, a critical gap persists in our understanding of how Western MNCs can transition from outsiders to insiders (Ohmae, 1989) in these markets. This transition involves localising value chain activities, embracing product diversification and establishing a local presence.

Surprisingly, limited attention has been devoted to the critical process through which MNCs identify and seize new market opportunities by reorganising their value chain activities to facilitate product diversification (Ryan *et al.*, 2020), particularly to cater to diverse market segments within emerging markets (Benito *et al.*, 2011; Winterhalter *et al.*, 2016). The journey of product adaptation and diversification compels MNCs to make vital decisions about localising and internalising/externalising their activities (Buckley and Casson, 2009; Pedersen *et al.*, 2014). Moreover, operating multiple product lines in one foreign host-market results in complex strategies, as it creates the opportunity to separate organisationally not only by externalising different product lines but also within the existing organisation by building a dedicated team for the new product line. Hence, this study argues that, in addition to the traditional decisions regarding location and control of activities (Hernández and Pedersen, 2017; Mudambi, 2008), MNCs also have to decide to what extent resources between different

product lines should be shared (i.e. whether to operationally integrate or separate value chain activities) (Delios *et al.*, 2008; Richard and Devinney, 2005).

The aim of this study is to investigate whether, why and how MNCs (re-)configure multiple value chains for different product lines, decide to conduct activities internally or externally and choose between integrating and separating value chain activities across product segments. To this end, we draw upon the internalisation theory and recent IB contributions that scrutinise value chain configurations to elucidate MNCs' adoption of product diversification as a growth strategy in foreign markets. We also explore the choices surrounding the in-house or external execution of new activities, as well as the combined entry mode strategies (Benito *et al.*, 2011). In parallel, we delve into the pivotal role of product diversification in explaining MNCs' motivation to partner with local businesses (Hennart, 2009; Narula *et al.*, 2019) and deepen our understanding of how product diversification may result in several (vertical) chains targeting different market segments *within* one foreign market.

Empirically, two in-depth case studies offer profound insights into how MNCs orchestrate value chain activities to serve both premium and mid-market segments simultaneously. Our investigation is underpinned by rich qualitative data gleaned from 18 interviews conducted with managers at Chinese subsidiaries of Volvo Construction Equipment (VCE) and Epiroc – two Swedish MNCs operating in the construction and mining industry. The Chinese context provides a fertile ground for our exploration, as succeeding in this market requires far more than simply adapting existing products; MNCs must diversify their product portfolios, offering varying price, performance and quality ratios to bridge the gap between lower- and higher-quality market segments to capture the mass market at its core. The historical perspective, covering a period of 15 years, enables us to develop contextualised explanations from these qualitative case studies (Welch *et al.*, 2011, 2022).

Our study advances several key contributions. Firstly, we enrich the literature on MNC strategies in emerging markets by shedding light on how MNCs respond to local pressures, prompting product diversification from premium to mid-market offerings and we illuminate how the dynamism of these markets acts as a catalyst for MNCs to recalibrate their value chain configurations. Secondly, we elucidate how and why MNCs reshape their value chains to cater to both the premium and mid-market segments. We contribute to the internalisation theory by providing insights into the internalisation/externalisation choice at the level of value chain activities within a host country (Buckley, 2009) and entry mode combination (Benito *et al.*, 2011) and by identifying integration/separation of value chain activities as a key factor in the strategic decision. Furthermore, we recommend an increased focus on product diversification as an essential element in understanding MNCs' motivations for partnering with local entities (Hennart, 2009; Narula *et al.*, 2019) and reconfiguring value chain activities for competitiveness in dynamic emerging markets. Finally, we contribute to the literature by presenting several propositions and developing a conceptual model distinguishing between (re-)configuration *within* or *across* organisational boundaries (i.e. conducting value chain activities internally or externally) on the one hand and, on the other hand, operational integration/separation of value chain activities across product lines.

The paper proceeds as follows. The next section presents our theoretical foundation, drawing from the internalisation theory and recent IB insights into value chain configuration to elucidate MNC expansion strategies in foreign markets, product diversification and value chain localisation in emerging economies. We then provide an overview of our qualitative study design, encompassing data collection and analysis methodologies. Empirical findings follow, offering a comprehensive depiction of multiple coexisting value chain configurations

embraced by firms in the Chinese market over time. We distil a set of unique drivers influencing the integration or separation of value chain activities between product lines. Subsequently, we discuss our main findings, illuminating key theoretical contributions. We conclude with limitations and avenues for future research.

Theoretical background: multinational corporations, product diversification and value chain localisation in emerging markets

This study aims to investigate whether, why and how MNCs (re-)configure value chain activities to diversify product offerings in host countries, decide to conduct activities internally or externally and decide between operational integration and separation of tasks across product lines.

Decision to internalise or externalise activities in foreign markets

Building on transaction cost economics (TCE) (Coase, 1937, 2005; Williamson, 2005), the internalisation theory emphasises the advantages and costs associated with MNCs internalising economic activity across borders, focusing on the mode of entry choice in host countries (Buckley and Casson, 1976; Rugman and Verbeke, 2001; Hennart, 2009). In the present context, the internalisation theory provides a conceptual understanding of Western MNCs' internationalisation, with a focus on research and development (R&D) and technological advancement as main sources of international growth and market imperfections as key explanations for modes of entry (Buckley and Casson, 1976, 2007), with hierarchical modes of governance prevailing in the case of knowledge-intensive activities (Buckley and Casson, 2020). Since the 1990s, the dominant assumption has been that firms should focus on "the core" and conduct in-house activities that add the greatest value to their competitive advantage while externalising all other activities (Buckley and Ghauri, 2004; Prahalad and Hamel, 1990).

Studies have explored conditions of firms' vertical boundaries, especially across borders (e.g. Giroud and Mirza, 2015; Mudambi, 2008; or recent theoretical development of the Global Factory, Buckley, 2018). Here, the literature distinguishes between two main strategies influencing the vertical scope of the firm: vertical integration and specialisation. Through the internalisation of activities, the firm can gain control, increase efficiency and deliver improved offerings to an existing customer base. Specialisation strategies involve realising cost advantages by disaggregating or "fine-slicing" generic value chain activities into smaller activity subsets or modules (Buckley and Ghauri, 2004; Contractor *et al.*, 2010; Kano *et al.*, 2022; Mudambi, 2008) and conducting high-value-adding activities such as R&D and marketing in-house, while externalising/outsourcing (e.g. to emerging economies) more standardised activities such as component manufacturing and assembly (Mudambi, 2008). In foreign markets, headquarters (HQs) initially decide upon the functional specialisation of foreign subsidiaries (White and Poynter, 1984). This functional specialisation depends upon the role assigned to the subsidiary, which may evolve depending on autonomous actions of the subsidiary and successful competence development (Cantwell and Mudambi, 2005) and its position within a complex network of internal and external business relationships (Ghoshal and Bartlett, 1990). MNCs decide upon the structure and organisation of value chain activities conducted internally by various units of the firm or externally in the home and/or foreign markets (Pedersen *et al.*, 2014; Rugman and Verbeke, 2001).

To compete within foreign markets, MNCs rely upon both internal and external resources, leveraging unique firm-specific advantages that are location- or non-location-bound, at the HQ or subsidiary level (Rugman and Verbeke, 2001) and firm-specific advantages of local business partners. This often leads to a trade-off between alternative organisational forms, motivated by the level of resource commitment, the degree of control

the firm wishes to exert, types of risks and returns and the degree of global rationalisation (Hennart, 2009). For instance, in the case of knowledge-intensive activities, externalising activities through equity (vs non-equity) alliances allows for more control and safeguards against opportunistic behaviour (Elia *et al.*, 2019). This results in the MNC choosing between various modes of ownership and sometimes managing multiple units within the host market (Contractor *et al.*, 2010; Narula *et al.*, 2019).

Overall, the internalisation theory provides powerful explanations for the governance choice of MNC activities across borders, and recent IB literature on value chain configuration shows the choice of governance also takes place at the level of individual value chain functions (i.e. internal vs external activities). In this paper, we also wish to understand whether, why and how MNCs organise individual value chain activities – in-house or externally – to engage in product diversification to evolve and compete in a host country.

Multinational corporations' product diversification in host countries

According to traditional theory, subsidiaries of Western MNCs tend to initially offer products innovated in the home market in emerging economies (e.g. the classical idea of the product life-cycle; Vernon, 1966) and/or engage in the adaptation of existing products to local market requirements (Kuemmerle, 1997). Moderate levels of product adaptation enable firms to exploit economies of scope, as resources and capabilities can be shared among various units of the firm (Benito-Osorio *et al.*, 2012). In this case, R&D is conducted at home and focuses on the creation of new, technologically advanced and high-quality products (Buckley and Casson, 2007). More recent evidence, however, suggests that MNCs increasingly develop new products and solutions to serve different market segments within large strategic host emerging markets (Ivarsson and Alvstam, 2017; Jha *et al.*, 2018; Schweizer *et al.*, 2021).

Thus, once in foreign markets, subsidiaries can grow through related product diversification (Benito-Osorio *et al.*, 2012; Buckley and Casson, 2007; Delios *et al.*, 2008) – that is, the development of a new product which differs from the existing solution in terms of size, cost and market segment addressed but still offers the same core functionality. Traditionally, greater support from HQs is needed for subsidiaries' sales and marketing as well as their technological activities (Achcaoucaou *et al.*, 2017), while external networks enable subsidiaries to compete when local markets require new product lines (Alcácer, 2006; Ryan *et al.*, 2018). To succeed in emerging economies and respond to the different nature of demand found in the mid-market segment, it is argued that the adaptation of existing products is no longer sufficient (London and Hart, 2004) and that new business models (Demir and Angwin, 2021; Winterhalter *et al.*, 2017) and the reconfiguration of innovation, manufacturing, sales and delivery channels are needed. Thus, of central importance is how the MNC will (re-)organise value chain activities and build a specialised value chain for the new product line to expand to a new market segment in the host market.

Integration or separation of value chain activities between product lines

In this paper, we argue that sharing resources between different product lines relates to MNCs' choice of operational integration or separation between various product lines at the individual value chain activity level and the benefits or costs of operating a single or multiple value chains for different product lines (Kano *et al.*, 2022; Ryan *et al.*, 2020). Operational integration means that the same team performs the activities for the existing and new product lines, thus sharing resources and knowledge across product lines. Operational integration provides opportunities for potential synergies and economies of

scale and increases the possibilities of exploiting existing knowledge and resources across product lines.

Conversely, operational separation focuses on creating distinct and specialised functional teams for new product lines, which means few or no resources are shared (Winterhalter *et al.*, 2016). MNCs can separate different product lines internally by building a new team specialised in mid-market products (Zeschky *et al.*, 2014) or they can look for an external partner to specialise in the new product line (combining operational and organisational separation) (Christensen, 1997; Zeschky *et al.*, 2011). Irrespective of the mode of operation (e.g. hierarchy, JV, market), operational separation may reduce the risk of cannibalising existing product lines (Christensen, 1997), alleviate the risk of over-engineered products, increase autonomy (London and Hart, 2004; Zeschky *et al.*, 2011) and have a positive effect on performance (Prahalad and Hamel, 1990). Nonetheless, separation between different product lines may increase organisational complexity, increasing the cost of coordination (Buckley, 2014), decreasing synergies and potentially resulting in additional costs of maintaining a second brand (Richard and Devinney, 2005).

To date, the literature that has considered the challenge for Western MNCs serving emerging markets of integrating versus separating value chain activities has focused either on product diversification from premium to mid-market products or on entry mode combination. Focusing on product diversification, Winterhalter *et al.* (2016) use an activity system perspective to investigate how 11 MNCs expanding to the mid-market integrate or separate low-cost and premium product lines at the individual value chain activity level within the existing subsidiary. The study finds that separation is especially beneficial in situations with significant differences in demand, institutions and environmental conditions between the market segments. In such situations, the studied MNCs established dedicated R&D units in emerging economies, thereby separating this type of cost-based R&D from HQs-level R&D and engaging in local partnerships to create new sales channels. Benito *et al.* (2011) studied how six Norwegian MNCs in China chose to combine modes of operations. The study distinguishes between mode combinations at different points of the value chain (e.g. where sales are carried out by a foreign distributor while manufacturing is performed at a wholly-owned subsidiary [WOS]) and those at the same point of the value chain (e.g. where sales to large customers are conducted in-house while sales to smaller customers are conducted by an external distributor).

To explore how MNCs decide upon the (re-)organisation of value chain activities when engaging in product diversification to succeed in a large emerging market, we use two case studies. We present our research methodology in the next section.

Methodology

Research design

The purpose of this study is to investigate whether, why and how Western MNCs (re-) configure value chain activities when introducing new product lines in emerging markets after initially serving the market with products developed in the home market. We use in-depth case studies to thoroughly analyse these decisions (Yin, 2014), as our complex research question necessitates contextualised explanations (Welch *et al.*, 2011, 2022).

VCE and Epiroc were chosen based on information gathered during initial interviews conducted in 2016 to explore mid-market strategies of Swedish MNCs in China. VCE, headquartered in Gothenburg, is a leading producer of wheel loaders and excavators, with sales primarily from machine sales and services. Epiroc, headquartered in Örebro, manufactures surface and underground equipment for the mining and construction industry. In January 2018, Epiroc became an independent company following the divestment of the mining division of

Swedish Atlas Copco. We selected two cases to enable a comprehensive comparative analysis (Eisenhardt and Brown, 1998) and enhance the clarity of insights (Langley and Abdallah, 2015). Both firms are large multinationals with global operations, and Asia represents a significant portion of their global turnover (see Table 1).

The two case studies were carefully selected for their comparability in the research phenomenon under study. They share commonalities such as the same home country, involvement in manufacturing complex products and systems (Hobday, 1998), and engagement in related industries (mining and construction) that experience significant government intervention in host markets, particularly in China. Initial interviews revealed that both firms encountered challenges expanding successfully in the mid-market segment in China by simply adapting existing products. Existing processes and capabilities were geared towards producing technologically advanced solutions for the premium segment, which covered only a small portion of the large Chinese market (London and Hart, 2004; Zeschky *et al.*, 2011).

Data collection

We collected primary data through two rounds of semi-structured interviews using a brief interview guide containing questions about the firms' history, current status and future decisions regarding value activities when diversifying from premium to mid-market products (see Appendix 1). Respondents were selected based on their key roles, involvement in expansion decisions in China and tenure at VCE or Epiroc since the initial China expansion. This allowed them to provide retrospective insights (Schultz and Hernes, 2013) into the firms' product diversification strategy and related value chain (re-)configurations over time. Data was collected at the firms' HQs in Sweden and among their subsidiaries in the Chinese market.

A total of 18 interviews were conducted with carefully selected senior managers in the two case companies (see Table 2). The first round of semi-structured interviews, conducted in 2016 with key informants at the HQs of VCE and Epiroc (formerly Atlas Copco) and in the Chinese subsidiaries, helped identify challenges and opportunities related to managing value chain activities for product diversification. The second round of interviews, conducted in April 2019 in China, involved general managers, heads of operations and managers responsible for individual functional value chain activities (i.e. R&D, manufacturing and sales). Additionally, a semi-structured interview was conducted with the joint-venture partner, Shandong Lingong Construction Machinery Co. Ltd. (SDLG).

To mitigate potential manager bias and enhance narrative validity and rigour, we triangulated (Yin, 2014; Langley and Abdallah, 2015) between perspectives of managers responsible for overall strategies or core value chain functions, using secondary data to verify key dates and contextual information and cross-referencing interview data with external sources (e.g. press releases, company presentations). The interviews, lasting between 30 min and 3 h, were recorded and transcribed verbatim. All interviews concluded with an open-ended question to allow interviewees to address relevant issues not covered by the interview guide.

Data analysis techniques

To elucidate how subsidiaries organise their value chains to simultaneously offer premium and mid-market product lines, we used systematic combining, moving continuously between data and theoretical lenses to help explain the data and analysis (Dubois and Gadde, 2002, 2014) – a suitable approach for extracting deep explanations of complex phenomena (Wynn and Williams, 2012).

Table 1.
Company data

Indicators	Epiroc AB							Volvo CE AB						
	2000	2005	2010	2015	2019	2020	2021	2000	2005	2010	2015	2019	2020	2021
Turnover total (million SEK)	6,921	15,154	29,156	41,965	40,849	36,122	39,645	19,993	34,816	53,810	51,008	88,606	81,543	92,031
Turnover Asia (million SEK)	623	3,031	7,872	10,355	10,665	10,114	11,186	2,484	5,717	24,352	16,424	33,932	39,095	36,812
Asian share of total turnover	*9%*	*20%*	*27%*	*25%*	*26%*	*28%*	*28%*	*12%*	*16%*	*45%*	*32%*	*38%*	*48%*	*40%*
Number of employees total	*4,156*	*7,363*	*12,733*		*14,268*	*13,840*	*15,529*	*8,830*	*10,290*	*16,648*	*13,889*	*13,756*	*13,404*	*13,847*
Industry	Construction and mining							Construction and mining						
Product range	Underground rock drilling rigs for tunnelling and mining surface drilling rigs, surface drilling rigs, loading equipment, exploration drilling equipment and construction tools							Excavators, hauliers, wheel loaders and a small range of backhoe loaders						

Sources: Compiled from various company reports; Atlas Copco (2005, 2010, 2015); Epiroc (2017, 2018, 2019, 2020, 2021); Volvo Group (2010, 2015, 2021)

Company	Interviewee	Date	Position	Duration	Employed since	Place
Atlas Copco/ Epiroc	E1	06/2016	VP R&D, Atlas Copco Sweden	3 h including factory tour	2006	Örebro, Sweden
	E2, 2016	11/2016	GM Epiroc China	6 h including factory tour	2006	Nanjing, China
	E2, 2019	05/2019	VP supply chain	3 h	2006	Hemel Hempstedt, UK
	E3	04/2019	GM Epiroc China	45 min	2017	Nanjing, China
	E4	04/2019	R&D Manager A, Epiroc China	1 h	2017	Nanjing, China
	E5	04/2019	R&D Manager B, Epiroc China	1 h	2016	Nanjing, China
	E6	04/2019	Sales Manager, Epiroc China	1 h	2018	Nanjing, China
	E7	04/2019	Service Manager, Epiroc China	1 h	2014	Nanjing, China
	E8	04/2019	Manufacturing Manager, Epiroc China	1 h including factory tour	2014	Nanjing, China
Volvo construction equipment	VCE1	06/2016	GM R&D, VCE China	6 h including factory tour	1990	Jinan, China
	VCE2, 2016	11/2016	VP SDLG-Volvo, Sweden	2 h	1999	Eskiltuna, Sweden
	VCE2, 2019	04/2019	GM R&D, VCE China	2 h	1990	Jinan, China
	VCE2, 2020	05/2020	GM R&D, VCE China	30 min	1990	Jinan, China
	VCE3	04/2019	Sales Support Manager, VCE China	1 h	2004	Shanghai, China
	VCE4	04/2019	Head of Operations, VCE China	1 h	2002	Shanghai, China
	VCE5	04/2019	Aftermarket Manager, VCE China	1 h	2006	Jinan, China
	VCE6	04/2019	R&D Manager, VCE China	30 min	2012	Jinan, China
SDGL – VCE JV Partner	SDLG1	04/2019	Sales Manager, SDLG China	1 h	2006	Jinan, China

Source: Compiled by the authors'

Table 2.
Interviews conducted

Firstly, to understand why and how the MNCs engaged in product diversification, we created timelines of major events for each case company, paying attention to the organisation of each value chain activity (i.e. R&D, manufacturing, sourcing, sales and branding) for premium and mid-market product lines and how this evolved over time. Short case narratives were developed and discussed among researchers. These narratives were shared with respondents to ensure alignment with their perceptions, forming the basis for Figures 1 and 2.

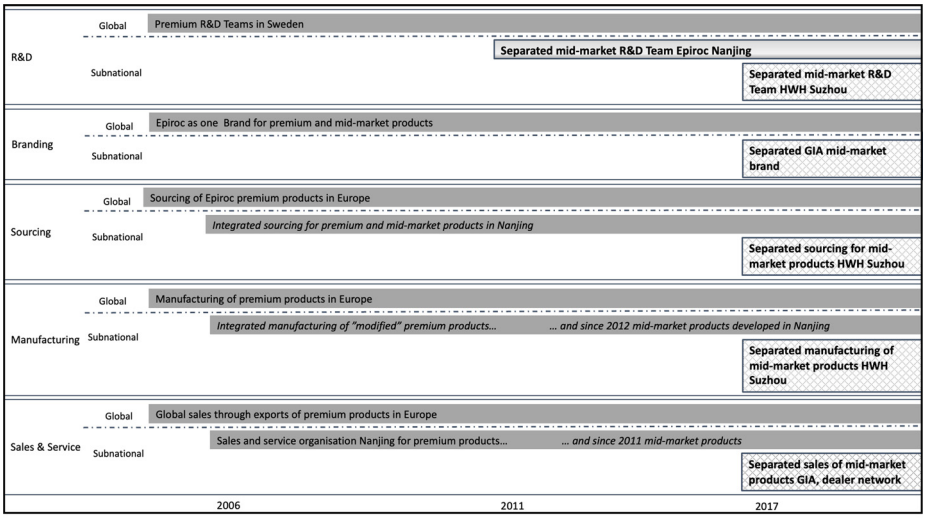

Figure 1.
Epiroc value chain (re-)configuration in China

Source: Authors' own elaboration

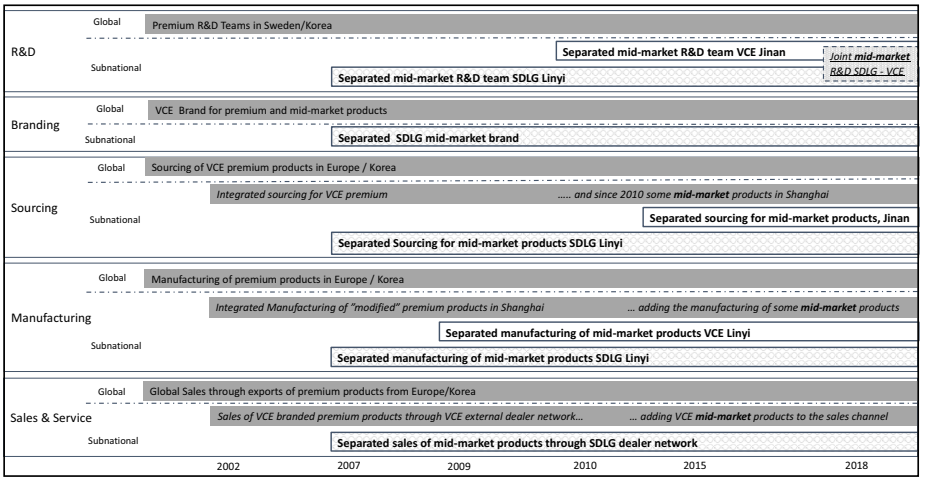

Figure 2.
VCE value chain (re-) configuration in China

Source: Authors' own elaboration

Secondly, in the theorising process, we anticipated that ownership and operational integration/separation would be important concepts, which was confirmed by the interview data. Representative quotes from respondents were selected regarding the organisation of individual value chain activities for premium and mid-market products.

Thirdly, statements describing similar phenomena were grouped together, resulting in 27 distinguishable first-order categories (see Appendix 2). Our data revealed that MNCs adopt different approaches to value chain configuration concerning location, mode of ownership and the extent of operational integration or separation for various product lines.

Fourthly, we revisited the literature to identify relevant concepts to explain the phenomenon. We integrated multiple theoretical concepts drawn from internalisation theory, the literature on MNCs' value chain configuration and product diversification at the subsidiary level to explain why and how MNCs configure multiple value chains for different product lines in emerging markets. This allowed us to group the first-order categories into 12 second-order themes with more theoretically informed terminology.

Fifthly, the theoretically informed second-order themes enabled us to provide empirical explanations and enhance theory on key concepts by creating four aggregated theoretical dimensions:

(1) *Internal* product diversification within organisational boundaries and operational *separation*.

(2) *Internal* product diversification within organisational boundaries and operational *integration*.

(3) *External* product diversification across organisational boundaries and operational *integration*.

(4) *External* product diversification across organisational boundaries and operational *separation*.

In the following, the findings will be presented according to these four strategic options, while the second-order themes helped create the narrative and provide explanations for the chosen options. This analysis process resulted in a conceptual model summarising the study's outcomes.

Given our aim to provide deep, context-rich explanations (Dyer and Wilkins, 1991), we selected two cases. This approach allowed for extensive case descriptions, a focus on context (Dubois and Gadde, 2014; Welch *et al.*, 2022), and a level of comparison between the two firms to enhance understanding and explore potential variations in firm strategies.

Findings

Overview of firms' activities in China

Both firms initially established a representative sales office in Beijing – Atlas Copco in 1985 (Atlas Copco, 2019) and VCE around 1995. They subsequently increased their investment in China in the early 2000s. In 2002, VCE founded a wholly-owned manufacturing plant in Shanghai. Additionally, VCE launched an R&D WOS, a technology centre, in Jinan in 2010, and a wholly-owned production unit in Linyi in 2009. They also established a sourcing unit for mid-market products in Jinan, beginning in 2012. In 2007, VCE created a subsidiary managed by a joint venture (JV) partner responsible for R&D, production, sales and sourcing activities.

Epiroc began building its presence in China by investing in a manufacturing and sales WOS in Nanjing in 2006. The primary motivation for this investment was to reduce the cost of existing products for sale in the local market (Atlas Copco, 2006; E2, 2016). In 2011, Epiroc

established a new R&D centre in Nanjing, aiming to enhance its competitiveness in the Chinese market (Atlas Copco, 2011). In 2017, Epiroc formed a JV for Sales and Marketing in Shanghai and invested in a subsidiary managed by a JV partner that handled R&D, manufacturing and sourcing activities in Quzhou.

In the following analysis, we examine how the firms initially sold premium products developed in the Swedish home market in China before deciding to diversify and expand their activities to include mid-market products.

During their initial foray into the Chinese market, both firms adapted existing premium products developed by their R&D units in Europe (and Korea, in the case of VCE excavators). They also localised manufacturing and partially sourced materials to leverage lower labour costs in China (E2, 2016; E3, 2019; VCE2, 2016; VCE4, 2019). Thus, during this initial phase of market entry, both firms localised their manufacturing, sourcing and sales functions while keeping R&D centralised at the HQs level (VCE4, 2019; VCE2, 2016; E2, 2016). Coordination-wise, the adapted product lines were operationally fully integrated with the products previously sold and were based on the same technology.

Factors explaining the decision to add mid-market products to the existing premium product portfolio

Before 2010, the Chinese construction and mining market was still in an early developmental stage, marked by a high reliance on manual labour, hand-held tools and minimal automation. Most companies were state-owned and produced equipment based on a single-core design. The market was primarily dominated by international industry leaders from Europe, the USA and Japan, with limited domestic competition in the mining and construction sectors (VCE5, 2019; E3, 2019).

The distinct nature of demand, along with changes in the local competitive and institutional environments, led managers to re-evaluate the feasibility of their minor adaptation strategy. Starting in 2010, local competition began to rise, with domestic firms upgrading their capabilities and becoming strong competitors, particularly in the emerging middle- and low-cost segments in China, which exhibited a vastly different price-to-performance ratio. Subsidiary managers learned that the mid-market's demand differed significantly from the premium segment in terms of capacity, pricing, competition, willingness to purchase services and consumption culture.

The premium segment featured higher capacities (over 30 tonnes), energy efficiency, automation and technological complexity, with customers willing to pay a premium for Western technology, reliability, uptime and after-sales services. In contrast, the mid-market was characterised by affordability, with Chinese customers prioritising value over price and being unwilling to pay for non-essential additional features. While mid-market products offered small, robust and user-friendly solutions at a reasonable price, profitability was lower, and customers did not place the same value on after-sales services.

Eventually, both firms realised that merely adapting or downgrading existing products to expand into the mid-market segment would not suffice to compete effectively and increase their local market share. Managers at both firms recognised the need to diversify their product portfolios and reconfigure their value chains to develop new product lines specifically designed to target the mid-market.

Our findings align with previous studies suggesting that MNCs must develop new capabilities and processes that differ from their initial strategy of adapting and localising R&D (Demir and Angwin, 2021; Landau *et al.*, 2016; Winterhalter *et al.*, 2017). Our research demonstrates that changes over time in demand, the competitive landscape and institutional pressures push Western MNCs beyond relying solely on premium products to gain a

competitive edge; they must instead rethink existing business models and value chain activities to enter the mid-market segment. Thus, we propose:

P1. Over time, to diversify into mid-market products, Western MNCs need to (re-) configure value chain activities to serve both premium and new mid-market segments.

Decision to diversify from premium to mid-market products and implications for value chain activities

Internal product diversification within organisational boundaries. Initially, both Epiroc and VCE attempted to develop mid-market products internally by localising activities at the subsidiary level, although their approaches differed in terms of operational integration or separation of individual value chain activities.

Strategic choice 1: Internal product diversification within organisational boundaries and operational separation. Both firms realised that their initial strategy of selling downgraded premium products developed at their global R&D units in Sweden did not succeed as expected. As illustrated in the second-order themes (please see Appendix 2), the realisation that adaptation was insufficient and that more autonomy and proximity to the target market were needed led to the localisation and operational separation of R&D, especially in the case of VCE. In 2011, Epiroc established a new R&D unit in Nanjing, co-located with the existing manufacturing unit, with a specific focus on developing Epiroc-branded mid-market products (see Figure 1). In VCE's case, the company separated not only R&D but also manufacturing and sourcing for mid-market products (see Figure 2). VCE established a separate team to manufacture Volvo-branded mid-market products in Linyi due to capacity constraints in Shanghai and slightly lower labour costs in Linyi. A sourcing team for mid-market products was also set up in Jinan to work closely with suppliers, allowing for more decision-making autonomy and fostering functional interaction between R&D and sourcing. Overall, these data demonstrate how and why firms operationally separate value chain activities between mid-market and premium strategies within the same organisation.

For MNCs, internal operational separation occurs between the HQs and the subsidiary, as well as among firm units within or across host countries. In our findings, internal operational separation became most evident in the case of R&D, aligning with the results of Winterhalter *et al.* (2016) and Zeschky *et al.* (2011, 2014). Initially, both case study firms established local R&D units to gain a better understanding of the market, lower costs and develop mid-market-tailored products. However, both MNCs also decided to operationally separate the subsidiary-level R&D unit from global HQs-level R&D units by granting more autonomy and room for local decision-making. This decision aimed to mitigate the risk of overengineering products, establish new processes and mindsets and enable faster responses to market changes. Our findings provide additional evidence of internal operational separation over time in the case of VCE, which further specialised its value chain by creating a dedicated manufacturing unit for mid-market products in Linyi and a sourcing unit in Jinan to focus on mid-market products. This finding supports those of Winterhalter *et al.* (2017), suggesting that firms use different suppliers in China to source mid-market products to reduce costs and accelerate time to market.

Strategic choice 2: Internal product diversification within organisational boundaries and operational integration. While both firms created dedicated R&D units for mid-market products that were operationally separated from HQs-level activities, other value chain activities continued to share resources between product lines. For example, Epiroc used the

same manufacturing, sourcing, sales and service teams at the Nanjing subsidiary to serve both mid-market and premium segments. Likewise, mid-market products developed by VCE in Jinan were sold by the same team under the same brand as premium products. Operational integration of value chain activities (i.e. using the same teams for both premium and mid-market products) helped increase resource sharing, leverage scale advantages, exploit synergies and reduce costs associated with maintaining an additional team or brand. Both firms used the same teams for the production, sourcing and sales of both product lines and adopted a single-brand strategy (see second-order themes in Appendix 2).

However, managers noted that operational integration of value chain activities for different market segments in one host country presented numerous challenges, including internal conflicts – particularly in sales, where managers tended to focus on the more prestigious and higher-margin premium products. Additionally, functional managers faced core differences in product lines, such as distinct sales logic, different materials and low-cost production requirements, necessitating the design of new sales, sourcing and manufacturing channels.

External product diversification across organisational boundaries

By developing an internal mid-market strategy, Epiroc and VCE could target the mid-market segment up to a certain threshold. It became evident that to achieve cost levels compatible with lower-capacity segments, they needed local partners. Subsequently, both MNCs decided to establish JVs to strengthen their presence in the mid-market, an approach characterised by local partnerships for the mid-market.

In 2006, VCE formed a majority-owned (70/30) JV with one of China's top wheel-loader manufacturers, Lingong (SDLG), aimed at producing lower-cost solutions to compete in the mid-market segment (see Figure 2) (VCE, 2016). Through this JV, VCE gained a strong foothold in lower-capacity segments, particularly for less technologically complex and more compact wheel loaders. In 2019, SDLG contributed 7% to China's total turnover, while VCE contributed 3%. The significance of this JV is further underscored by considering the number of machines sold in China. In 2019, of the 53,664 machines (62% of all delivered machines) dispatched in Asia, the SDLG brand accounted for the majority, with 40,202 machines sold in China (SDLG, 2019). This demonstrates that VCE's choice of JV partner was not solely based on cost reduction. Managers also emphasised the importance of gaining access to sales, sourcing and distribution channels, enhancing market knowledge, and targeting a market segment that was challenging to reach with their existing brand.

Similarly, in 2017, Epiroc established a minority-owned (49/51) JV with compressor manufacturer Hongwuhuan (HWH) Group in Quzhou and a second (49/51) JV with the Shanghai sales and service company GIA industri AB (GIA) (Epiroc, 2017) to further penetrate the mid-market segment (see Figure 1). The primary motivation behind these JVs was to avoid diluting Epiroc's existing brand, which positioned them as Western technology leaders, and instead offer less complex mid-market products. However, both case study firms pursued product diversification by establishing JVs while adopting different approaches to integrating or separating value chain activities.

Strategic choice 3: External product diversification across organisational boundaries and operational integration. Operational integration between the JV partner and VCE was evident in R&D, as the R&D unit in Jinan provided technological support to the JV partner (SDLG1, 2019; VCE2, 2019). Similarly, for Epiroc, the R&D team at the subsidiary in Nanjing offered technological knowledge support to the JV partner (E2, 2019). These findings indicate that MNCs not only develop mid-market products at their local R&D units but also engage in joint technological development and knowledge sharing between the R&D unit and the local JV partner.

Strategic choice 4: External product diversification across organisational boundaries and operational separation. In both cases, apart from R&D, all other value chain activities (i.e. branding, manufacturing, sourcing and sales) remained operationally separate. VCE operated a dual-brand strategy (VCE1, 2016; Volvo Group, 2019). For products sold under the SDLG brand, the JV partner handled sourcing, manufacturing and sales, which were operationally separated from other operations in China and the rest of the world. Similarly, in Epiroc's case, mid-market products were produced, sold and serviced by the JV partner (E2, 2019).

By following this strategy of externalising value chain activities and keeping them operationally separated from activities conducted at the subsidiary level, both firms were able to achieve further cost reductions, expand their market knowledge and reach through the sales channel, access the local supplier network, establish themselves as Chinese brands and address a new customer segment. Managers also noted that entering the mid-market through a well-established Chinese brand allowed them to "act Chinese" in the market. In terms of sourcing materials, calculations and organisational flexibility, neither company was bound by group-wide procedures. Launching a second brand not only mitigated the risk of cannibalising premium product lines (as in Epiroc's case) but also provided an opportunity to enter an untapped market.

In comparison with Winterhalter *et al.* (2016), who showed that MNCs operationally separate activities for mid-market and premium products within the same organisation by establishing a dedicated unit and argued that the sales function is the most prone to externalisation, our results demonstrate that MNCs may choose to externalise not only sales but also the entire value chain except for R&D. Hence, engagement in local partnerships becomes even more critical when aiming to expand into the mid-market segment within a well-established large host country.

Key drivers in the decision to operationally integrate or separate value chain activities by product lines, within or across organisations

Table 3 summarises the key drivers identified in the data that lead to the operational integration or separation of value chain activities between product lines, both internally and externally, within or across organisational boundaries. The findings suggest that R&D for mid-market products tends to be operationally separated from global R&D at the HQs level to increase autonomy, reduce costs and foster a change in mindsets while still building on

Value chain activity	Operational integration	Operational separation
R&D	Technology transfer Learning	Mindset Cost Autonomy
Sourcing	Synergies	Different supplier standards Build low-cost supply base
Manufacturing	Synergies	Capacity considerations Labour cost
Sales and service	Save costs of operating two sales teams	Friction and competing interests Access to sales network
Branding	Save costs of operating two sales teams	New positioning Different brand value

Source: Authors' own elaboration

Table 3. Key drivers explaining operational integration or separation between product lines

technologies transferred from the HQs. When MNCs develop mid-market products internally and retain operational integration for sourcing, manufacturing, sales and branding, they can leverage synergies and avoid the costs of maintaining additional teams; conversely, when they develop such products through a JV partner and separate value chain activities operationally, they can gain access to different suppliers, lower costs, increase manufacturing capacity and benefit from lower labour costs. Operational separation of the sales function minimises internal conflicts between competing product lines and expands access to a broader sales network. Adopting a dual-brand strategy for both premium and mid-market products helps to convey distinct brand values and achieve a new brand positioning.

Overall, the data – especially those pertaining to VCE – show that decisions regarding the reconfiguration of value chain activities for product diversification within a host country evolve over time. For VCE, a shift occurred from 2017 onward, marked by increasing technological convergence and the introduction of new emission standards. Consequently, VCE and SDLG began to leverage shared resources, capitalising on synergies in their sourcing networks and using the same sales channels for specific products. For instance, VCE opted to market all excavators above 15 tonnes under a unified brand (Volvo Group, 2019).

Moreover, it is important to note that new drivers continuously emerge, potentially blurring the operational boundaries between distinct market segments, namely, premium, middle and low. For instance, technological advancements driven by the China Manufacturing 2025 initiative launched in 2015 (Ning *et al.*, 2017) and the implementation of the China VI emissions regulation for heavy-duty vehicles (ICCT, 2018) may lead to further convergence in technology between Eastern and Western markets.

Additionally, differences in consumption culture and the significance placed on specific product features, such as advanced displays and innovations in batteries and internet of things (IoT), underscore China's status as a unique market, necessitating tailored value chain configurations. For the case study firms, partnering with local entities to enter the Chinese mid-market was not merely crucial for expansion within that market but increasingly instrumental for global success. As an example, SDLG has commenced exporting its products to other "global" mid-market destinations, including Africa and Southeast Asia. Consequently, the development of a successful mid-market strategy holds significance not only for thriving in China but also for achieving strategic success on a global scale:

> There is an interesting challenge in the dynamics between centralisation vs. local independence and operating the mid-range products within separate or common organisational structures. Of course, this is not a once-for-all decision that can be made, rather what is right changes over time (E1, 2016).

Product diversification and value chain (re-)configuration

Both case study firms' results reveal the organisational complexity inherent in creating and managing "vertical value chains" for different product lines (Pedersen *et al.*, 2014). Prior literature suggests that value chain configurations require decisions regarding location, governance and coordination (Hernández and Pedersen, 2017), as well as integration and global coordination among various fine-sliced value chain activities as critical success factors for contemporary MNCs (Beugelsdijk *et al.*, 2009; Buckley, 2011). In this study, we argue that the process of (re-)configuring single or multiple value chains to serve various market segments increases organisational complexity and coordination costs

(Buckley, 2014; Pedersen *et al.*, 2014), necessitating the development of orchestration and coordination skills (Richard and Devinney, 2005):

P2. Western MNCs can combine different governance modes to conduct production, sales and distribution activities to build and acquire knowledge to co-ordinate multiple value chains in emerging markets.

By shedding light on the choice between operational integration and separation, our results align with previous studies arguing that firms must not only determine how to organise and where to locate individual value chain activities but also how to effectively coordinate them (Buckley, 2011; Hernández and Pedersen, 2017). This extends our understanding of the connections between various activity bundles, essentially delving into the "physiology" of the chain, as well as the management of multiple value chains within the same firm (Alvstam and Fang, 2021).

Our empirical data illustrate that product diversification can lead to the emergence of multiple vertical value chains. Consequently, managers not only face decisions related to whether activities should be conducted globally or locally or should be handled through make, buy or ally strategies; they also must consider the extent to which the mid-market product line should be operationally integrated or separated from existing premium or other mid-market product lines. Therefore, we propose:

P3. MNCs' value chain (re-)configuration for different product lines is a multidirectional process. Firms need to decide whether to operationally integrate or separate individual value chain activities across or between product segments, as well as within and across organisational boundaries.

Discussion

Multinational corporations' success in emerging markets

This study set out to explore whether, why and how MNCs adapt their value chains to cater to different product lines within host countries. We have unveiled the challenges MNCs face in maintaining their competitive edge within emerging markets, driven by shifting competitive landscapes, evolving demand patterns and unique environmental factors (London and Hart, 2004). The patterns we have observed resonate with prior research, elucidating the substantial shifts witnessed in the Chinese construction and mining equipment market during the first two decades of the 21st century. This industry has transitioned from a reliance on manual labour and hand-held tools to becoming a hub for automated machinery (Brandt and Thun, 2016; Gao *et al.*, 2019). Notably, this transformation has seen the emergence of domestic Chinese firms quickly upgrading their capabilities (Brandt and Thun, 2016), indicating a shift in competition from global competitors to private Chinese firms dominating particularly in the lower-income segments.

China, as a rapidly expanding Asian market, has transformed from a low-cost manufacturing hub to a competitive arena characterised by surging demand across diverse sectors and market segments. This evolution necessitates more adaptive strategies. The mid-market's size, the heightened local competition and the discernible disparities in mid-market versus premium market customer demands in terms of pricing, technological intricacy, core functionalities and service preferences illuminate why Western MNCs have embraced product diversification in a large emerging host market, as well as the implications in terms of value chain reconfiguration.

The shift from a premium to a mid-market strategy is not without challenges. Our case studies reveal that MNCs initially entered China aiming to leverage technological

advantages while focusing on efficiency and cost-driven investments. However, this approach often limits growth within the Chinese market. Strategies centred around adapting existing products to local market needs (Kuemmerle, 1997) or treating the subsidiary as a "mirror organisation" or mini-replica (Porter, 1989; Mudambi, 2008) might result in operations aligned with the global rather than the local market. Consequently, both case firms embarked on the creation of a dedicated mid-market value chain. This value chain incorporated new sales, sourcing, manufacturing and distribution channels alongside the existing configuration for premium products. This extension of our insights brings to the forefront the dynamics of MNCs' value chain reconfiguration in various dimensions.

Multinational corporations and value chain configuration

From a value chain perspective, our study demonstrates that MNCs make decisions not only concerning vertical activity bundles, such as breaking down the R&D function into sequential tasks (Beugelsdijk *et al.*, 2009; Buckley, 2014; Elia *et al.*, 2019) but also horizontal activity bundles distinguishing between different product lines (Alvstam and Fang, 2021). For instance, they might operate distinct sales teams for different product lines (Benito *et al.*, 2011). Thus, our study underscores an often-overlooked facet of value chain configuration. While prior research has acknowledged that firms manage multiple value chains for various business units or product lines (Ryan *et al.*, 2020), possibly resulting in mode combinations at the same point in the value chain, as proposed by Benito *et al.* (2011), our study delves deeper into why firms engage in "horizontal fine-slicing" when diversifying their product offerings. This illustrates how market knowledge, autonomy, access to technological insights, organisational frictions and speed to market drive MNCs not only to localise value chain activities but also to cultivate specialised capabilities for new product lines. They accomplish this either by establishing dedicated teams within their organisational boundaries or through partnerships with local entities. Our study also demonstrates how and why product diversification can prompt MNCs to use a combination of entry modes in the host market (Benito *et al.*, 2011; Delios *et al.*, 2008). We identify factors that dictate whether hierarchical or hybrid governance modes are adopted for the new mid-market value chain configuration.

Our study elucidates that, alongside the traditional considerations of location and control (Buckley and Casson, 2009; Hernández and Pedersen, 2017), firms must also make decisions regarding resource sharing for value chain activities among product lines. Effectively coordinating knowledge exchange across different value chain activities is pivotal to ensuring the seamless flow of goods and information. Therefore, quasi-internalisation (e.g. through information, technological and managerial) can be as important as ownership (Buckley, 2011). Our study contributes to this body of literature by showcasing how MNCs meticulously balance their strategic choices between integration and separation of various activity subsets. The decision often hinges on the necessity of information exchange, technological know-how and the need to adopt novel operational processes for effective competition across two distinct market segments.

A major contribution of this study lies in shedding light on the motivations behind operational separation or integration, both internally and externally (i.e. within or across organisational boundaries). The decision to develop mid-market products internally within the local subsidiary, rather than at the HQs, is driven by a range of factors, extending beyond cost considerations. It often stems from the desire for increased speed to market, local autonomy and enhanced operational flexibility. This approach facilitates adaptation in sourcing, manufacturing and sales channels while minimising organisational friction between teams targeting different market segments and leveraging economies of scale.

Going beyond the findings of Winterhalter *et al.* (2016), we further substantiate the notion that, rather than exclusively opting for internal operational separation of value chain activities, MNCs gain significant advantages from forging local partnerships dedicated to mid-market product development. We demonstrate that the decision to develop mid-market products in collaboration with a JV partner (opting for a hybrid governance mode) can be fuelled by the need to gain insights into the local market, access sales, sourcing and distribution networks and capitalise on the established brand reputation of the local partner. For Western MNCs operating in emerging markets, the establishment of a JV to facilitate product diversification may arise due to substantial disparities between the existing premium product and the (low-end) mid-market products. These disparities can encompass technological sophistication, pricing, emission standards and demand characteristics, while the risk of losing critical technological knowledge remains low.

Hence, our study aligns with conventional wisdom in the internalisation theory, suggesting that MNCs tend to maintain premium product lines in-house while considering hybrid governance modes (e.g. JVs) for product lines characterised by lower asset specificity. Mid-market products are often reliant on more standardised mass production and existing technologies, with a low risk of knowledge leakage. We add nuance to the understanding of motivations behind relational governance modes as alternatives to complete internalisation (Hennart, 1993; Elia *et al.*, 2019). Our focus differentiates between firms' motivations, emphasising the advantages derived from accessing local networks and resources (Scott-Kennel *et al.*, 2022) rather than solely relying on cost-related explanations.

Our study provides deep insights into the dynamics of value chain reconfiguration following product diversification in a host market. In the context of China, increasing technological convergence between the premium and mid-market segments may diminish the benefits of maintaining two separate brands, potentially leading to greater operational integration between activities conducted by the JV partner and the local WOS. Depending on changes in internal capabilities and external factors, managers are likely to reconfigure value chain activities for specific product lines. Previous studies have highlighted the significance of changes in the external environment (Ryan *et al.*, 2020), the impact of product diversification on the types of value chain activities carried out by foreign subsidiaries (Delios *et al.*, 2008; Jha *et al.*, 2018) and the co-evolutionary pattern (Cantwell *et al.*, 2010; Zhao *et al.*, 2021), underscoring the simultaneous development of firm strategy and the local context. Our study adds novelty by demonstrating that these decisions are linked to the operational integration and/or separation of value chain activities individually.

A conceptual model for multinational corporations value chain configuration

Building upon the above insights, we propose that product diversification in host markets requires MNCs to decide which value chain activities are to be performed internally within the organisation (i.e. at HQs or in the host market) or externally across organisations, as well as whether to retain existing value chain activities (i.e. operational integration) or develop new resources and capabilities alongside existing ones (i.e. operational separation). These decisions depend upon the propensity to modularise individual activities such as marketing or R&D (Mudambi and Venzin, 2010; Richard and Devinney, 2005), operating activities under hierarchical control or not (Kano *et al.*, 2022; Kedia and Mukherjee, 2009; Verbeke and Kano, 2015), as well as potential risks of externalising activities (e.g. coordination cost, cost of reintegration, risk of losing proprietary knowledge). MNCs must also decide whether the same teams will conduct individual value chain activities for various product lines; if not, they must create complementary functional teams.

To guide future research and offer clarity on various strategies for MNCs, our model outlines four strategic possibilities for organising individual value chain activities when diversifying from premium to mid-market segments in an emerging host market. These options encompass combinations that MNCs may use and value chain configurations that can evolve over time. Figure 3 visually represents these four distinct strategic choices within a matrix framework.

In sum, this discussion encapsulates a comprehensive overview of our study's key findings and their implications for MNCs operating in emerging markets. It furnishes valuable insights into the intricacies of value chain configuration, elucidating the factors influencing operational integration or separation and the dynamics of product diversification. Our proposed conceptual model serves as a framework for further research and strategic decision-making in this context.

Conclusions

This study aimed to analyse whether, why and how MNCs (re-)configure value chains for different product lines when expanding into new market segments within a foreign country. Drawing on two case studies of Swedish MNC subsidiaries in China, our research contributes novel theoretical insights by proposing key strategic decisions adopted by firms when diversifying from premium to mid-market products in a large emerging market.

Firstly, we contribute to the literature on MNC strategies in emerging markets by examining how MNCs respond to local pressures stemming from changes in the competitive landscape and the distinct nature of demand. This response involves product diversification from premium to mid-market products and the development of specialised value chain configurations for mid-market products. Our results highlight that firms engage in not only vertical but also horizontal specialisation, thereby increasing organisational complexity.

Secondly, we demonstrate that firms can develop specialised mid-market value chains either within or across organisational boundaries. Our argument aligns with internalisation theory, suggesting that MNCs configure their value chains in terms of location and control. However, we introduce novelty by proposing that subsidiaries specialise not only functionally but also in terms of the product scope and market segments served. This specialisation can explain the combination of entry modes, such as wholly-owned enterprises and hybrid governance modes like JVs. This finding advances our understanding of how and why MNCs operate single or multiple value chains within or across organisational boundaries to succeed in large, dynamic emerging markets.

	Value Chain Activities (R&D, Sourcing, Manufacturing, Sales, Branding) **for premium and mid-market products**	
	Operational Integration	**Operational Separation**
Activity conducted *internally* (within organisational boundaries)	Internalising + Operational Integration	Internalising + Operational Separation
Activity conducted *externally* (across organisational boundaries)	Externalising + Operational Integration	Externalising + Operational Separation

Note: Value Chain Activities may be existing or newly created for the new product segment
Source: Authors' own elaboration

Figure 3.
Conceptual model

Thirdly, we identify the operational integration/separation of value chain activities, specifically across product lines, as a critical decision when managing multiple value chains for different product lines. This shift in the horizontal boundaries of the firm varies depending on the type of value chain activity under consideration. A significant contribution here is the recognition that MNCs' value chain reconfiguration for product diversification is a multidirectional process that evolves over time.

In summary, we extend the MNC literature in host countries by illustrating that modern MNCs move from merely establishing mini-replicas for efficiency-based reasons towards orchestrating multiple subsidiaries within a large, strategically important host country. Subsidiaries now specialise not only functionally but also in terms of product scope and served market segments. This insight advances our understanding of how and why MNCs operate multiple subsidiaries in a single, significant host country and how they coordinate different activities within the same organisation. The operational integration/separation of value chain activities across product lines is a critical decision, particularly when configuring the value chain for product diversification in emerging markets. The proposed conceptual model provides a framework for academics and practitioners interested in the topic of organising not only ownership but also the sharing of knowledge and resources between product lines.

Managerial implications

Our findings have valuable implications for managers of MNCs seeking to expand into different market segments within a vast, strategic, emerging economy like China. These managers must prepare their firms to effectively compete with emerging Chinese competition in global markets. Given technological advancements, intense competition, evolving demand characteristics and rapid regulatory changes, responding promptly becomes imperative for Western MNCs.

Managers should consider the following:

- *Building specialised value chain configurations*: To diversify successfully into new market segments, firms must establish and manage additional value chain configurations.
- *Balancing coordination and knowledge*: Finding the right balance between coordination costs, knowledge requirements and brand reputation is crucial when deciding whether to operationally integrate or separate the new product line from existing ones at the level of individual value chain activities.
- *Leveraging local knowledge and competencies*: Assessing how local firms can contribute knowledge and competencies is essential. However, not every market segment necessitates a new product line; rather, the estimated market size must justify such a strategy. Moreover, Western MNCs can use their experience in the Chinese mid-market as a stepping stone to cater to mid-markets in other emerging economies across Asia, Africa and South America. This expansion strategy is no longer solely about safeguarding market share, as previously proposed in the literature, but also about securing long-term competitive survival in these markets.

Limitations and future research

While our qualitative case studies provide unique insights into the interplay between firm strategy and context, they inherently possess limitations regarding generalisation. Therefore, we encourage further studies to test our propositions and conceptual model to offer more insights into how firms manage multiple value chains for different product lines and decide on operational integration or separation between them.

We argue that product diversification and the operation of complex value chain configurations involving multiple subsidiaries under different organisational arrangements will become increasingly important for several reasons. Emerging economies are now significant sources of demand for Western MNCs, and products developed in these markets can be used to expand into other emerging or developing countries and even developed markets. Additionally, recent global events, including the COVID-19 pandemic and geopolitical tensions, have highlighted the deep integration of MNCs' value chains in China. Therefore, understanding the complex value chain configurations firms operate within large, strategic host countries has become an urgent issue. Future studies could further test our propositions and conceptual model on a broader scale, and additional single-case studies focusing on the drivers behind operational separation or integration between value chain activities over time would be valuable in understanding the costs and benefits of these organisational changes.

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Appendix 1. Interview guide

Background to subsidiary activities in China

(1) Please provide a synopsis of your entry into China. Which value chain activities were localised, when and why?

(2) What was the initial motive to enter the Chinese market? How and why did it change?

From premium to mid-market strategy

(3) Please define the mid-market segment compared to the premium segment in China (i.e. customer characteristics, competitors, target markets, price, functionality).

(4) Please describe the evolution of the mid-market strategy in China (i.e. when did it start, main drivers, market shares, competitors, etc.).

(5) Has there been a rise in local competition? If so, how did it influence the mid-market strategy?

Operationalisation of product diversification

(6) Where and how are R&D, manufacturing, sourcing, sales and marketing activities for mid-market products in China mainly carried out: internally (by yourself in-house in China or elsewhere in other parts of the MNC) or externally (i.e. through a JV or other external partners in China or elsewhere)?

(7) Are the approval criteria for suppliers of mid-market and premium products the same?

(8) Are the value chain activities (i.e. R&D/production/sourcing/sales/marketing) in China for mid-market and premium products integrated or separated (i.e. managed and carried out by the same or by different teams, in the same or different places)?

Business model regarding value chain activities across product lines

(9) To what extent do you need to adjust your business model (value proposition, value creation, value capture mechanisms) to generate value for the mid-market customers?

(10) If an adjusted business model is needed, how does it differ from the premium products in terms of sales, R&D, financing, marketing and production?

(11) What benefits and challenges do you see in your market strategy with integrated (or separated) brands, marketing, sales, distribution and after-sales services for mid-markets and premium products?

(12) Is there anything you consider relevant to this topic that we have not mentioned?

Source: Compiled by the authors.

Appendix 2

Table A1. Representative quotes, categories and themes

Representative quotes	First-order categories	Second-order themes	Aggregated theoretical dimensions
"Until ca 2010–11 AC mainly imported and assembled **downgraded premium products** in China, in combination with localization of production), before the local R&D centre started to develop new products". (E1, 2016) "Instead, we believe that **it was enough to offer downgraded premium products from the West**, instead of realising that for these markets the demand and customer behaviour and expectations is very different, and it is not only about the product itself, but very much also about distribution, after sale and all kinds of customer related issues". (E1, 2016) "The local R&D unit is also important if you want to **design the mid-market products more from scratch, instead of mainly downgrad[ing] your existing premium products**, which we now try to do, (. . .) resulting in local variants of existing products, more adapted to local demand". (VCE1, 2016)	A: Companies identify the limitations of premium product adaptation B: Rising need to develop new mid-market products	Adaptation is not enough	**Strategic choice 1:** Product diversification internally within organisational boundaries and operational separation
"When it comes to R&D the local Nanjing unit in China is responsible for the development of **mid-range products**". (E1, 2016) "The mission of the R&D centre in Jinan is to develop **mid-market products** for emerging markets, as well as the interface for technology transfer between VCE and SDLG". (VCE1, 2016)	A: Launch of a local R&D unit specialising in the development of mid-market products	Localisation and operational separation	
"We produce in two locations: in Shanghai, we produce only excavators, designed in Korea. Then we produce in the same location as the JV, but in our own facilities, dedicated Volvo products, using our own Volvo Production System,. . . **are only for the mid-market**". (VCE2, 2016)	B: Decision to produce mid-market products locally, but at a different site than premium products		

(*continued*)

Representative quotes	First-order categories	Second-order themes	Aggregated theoretical dimensions
"This purchasing organisation has about 20 people in Jinan and 100 in Shanghai. The people sitting in Jinan only **source for the mid-market products**, supporting the Jinan R&D organisation, you can say". (VCE2, 2016)	C: New dedicated sourcing team to increase local sourcing for mid-market products		
"The reason we made the organisational change in China was that we did not believe we had generated the expected growth we had hoped for. Therefore, we decided to set up a special 'China portfolio', leaving more room for **local decisions**". (E1, 2016) "The local organisation[s] in China have a **very large freedom to decide** which products to develop and produce locally and also how this should be managed (the global level only sets some restrictions)". (E1, 2016) "We have 100% local organisations, where everyone here report[s] to me, independently of the function resulting in a **quicker reaction** and more **freedom** to operate". (VCE1, 2016)	A: Localisation of activities requires more local decisions in the host country B: Push for increased autonomy of decision-making by the subsidiary	Autonomy	
"I am convinced that **local presence** is absolutely essential to be able to develop low-cost mid-range products, and I am sure that we would never be able to develop these products in Eskilstuna, Sweden (our main R&D centre). There, engineers are trained with a totally **different mind-set**, focusing on performance, properties, quality". (VCE1, 2016) "We are making this investment to strengthen our **design and development capacity** and offer our Chinese customers a **shorter time-to-market** for products designed to suit their specific needs". (Atlas Copco, 2011)	A: Need for greater response to local market requirements (e.g. lower costs, reduced time-to-market) B: Need to change mindsets to respond to local forces	Proximity to target market	

(*continued*)

Table A1.

Table A1.

Representative quotes	First-order categories	Second-order themes	Aggregated theoretical dimensions
"Mid-market products and products transferred from Sweden are produced at the **same site** in Nanjing and **sold by the same sales team**". (E8, 2019) "There is **no specialisation of suppliers** between [those] who deliver to mid-market products and premium products". (E2, 2016) "The challenge in China with **the sales organisations that now include both premium and mid-range products** is that part of the business culture promote[s] the sales of premium products, while the **sales of mid-range products [are] not that prestigious**. So, our local sales organisation has some **problems** [with pushing] the sales of mid-range products". (E1, 2016) "Products developed in Jinan are Volvo branded products **sold by the same team** as the downgraded premium products". (VCE2, 2016)	A: Mid-market products produced by the same team as premium products B: Same team sourcing for both product lines C: Same sales organisation selling premium and mid-market products in the local market	Same teams for production, sourcing and sales for both product lines	**Strategic choice 2:** Product diversification internally within organisational boundaries and operational integration
"Until now Atlas Copco only operate[d] with a **single brand**". (E1, 2016) VCE: Mid-market products developed in Jinan sold under the Volvo brand	A: Premium and mid-market products sold under the same brand	Single-brand strategy	
"The JV was launched in 2017. And that is a JV with a Chinese company HWH. (. . .) The idea is then, even with our mid-market products, **the gap** between the handheld to the mid-market is too big, and the idea is to bring in something in between". (E2, 2019) "In January 2007 the JV with SDLG was started. Volvo owns 70% and the management of SDLG owns 30%". (VCE2, 2019) "We started the JV with SDLG to develop mid-range products with a local brand". (VCE1, 2016)	A: Use of a hybrid ownership mode (e.g. JV) B: Identify a local partner with relevant comparative advantages (e.g. local brand)	Local partners for the mid-market	**Strategic choice 3:** Product diversification externally across organisational boundaries and operational integration

(*continued*)

Representative quotes	First-order categories	Second-order themes	Aggregated theoretical dimensions
"For the first machines that were developed by the joint venture partner, they **had help from Nanjing**". (E2, 2019) "The market developed, we got **technological support** from Volvo, so the timing was right. So, a lot of factors came together". (SDLG1, 2019) "SDLG are also responsible for the sales, marketing [etc.] for the products we have helped them to develop". (VCE1, 2016) "Our location in Jinan was established in 2010, with the new R&D facility launched later in 2014. (. . .) this location focuses on the **development and testing of products for both Volvo CE and SDLG**". (Volvo Group, 2020a, 2020b, 2020c)	A: Joint development of new mid-market products B: Technological support for the JV C: Knowledge sharing with selected value chain teams in the JV	Joint technological development and knowledge sharing between units	
"They do **sales, service, production, stock**". (E2, 2019) "Mid-market products **developed by HWH are sold by GIA**". (E2, 2019) In 2016: "With SDLG **all value chain activities are separate** from Volvo, except R&D". (VCE2, 2019) "Lingong are also responsible for the sales, marketing[, etc.] for the products we have helped them to develop". (VCE1, 2016)	A: Joint venture progressively oversees all value chain activities except R&D B: Increased autonomy of decision-making for mid-market products	Increased operational autonomy of the JV	**Strategic choice 4:** Product diversification externally across organisational boundaries and operational separation
"The synergy comes more from **production, supply base and knowledge from the market**. I think without the local partner we could not have such insight into **local market requirements**". (VCE5, 2019) "The motive to establish the JV with SDLG was to get access to their supply and distribution channels". (VCE2, 2016)	A: Synergies between local partner and the MNC B: Greater market knowledge and access to sales and distribution channels	Increased market knowledge and reach	

(*continued*)

Table A1.

Table A1.

Representative quotes	First-order categories	Second-order themes	Aggregated theoretical dimensions
"To better **understand the customers**, to **reach the sales channel**, HWH has a huge sales network. We are not allowed to have stock, but they are a private company [so] they have a lot of stock. It's a different business model". (E2, 2019)			
"The strong point of SDLG is manufacturing and the **supplier network**". (VCE5, 2019) "We also produce the 7.5 tons excavator for VCE. This is because it's a very competitive segment and most competitors fight on **cost and price**. And **Volvo cannot really reach that level**". (SDLG1, 2019) "We used the supplier network of SDLG which **reduced the cost**". (VCE2, 2019)	A: Increased access to supply networks by joint venture B: Ability to manufacturing cost	Cost reduction	
"The question is, how much do you dilute the brand[?] We do have a second brand strategy in China. For the lower market in China. That is only in China. Was launched 2017". (E2, 2019) "In China, our premium products and mid-range products gradually become closer in terms of technology, and the challenge is to find ways forward, so we do not **cannibalise our products**". (E1, 2016) "We have the **SDLG brand** with new[ly] designed products targeting the lower mid-market segment, and then we have **Volvo branded products** that are downgraded and adapted for the Chinese markets (the higher mid-market segment), and then and also our premium products)". (VCE1, 2016)	A: Differentiation between product lines B: Reduced risk of cannibalisation C: Distinct branding strategy for premium and mid-market products	Dual brand strategy	

(*continued*)

Representative quotes	First-order categories	Second-order themes	Aggregated theoretical dimensions
"We have to focus less on the problem with potential cannibalisation and focus more on the potential benefits of broadening our product range". (VCE2, 2019) "Earlier we [had] **[two very separated sales organisations**, but now we [have] move[d] towards more collaboration to shape one sales organisation but with two brands, improving our [ability] to find the right product for the right customer, rather than [having] the salespeople only focus on one of the brands". (VCE1, 2016)			

Source: Compiled by the authors

Table A1.