

The Governance-Innovation Nexus in MNEs: How HQ Control Shapes Subsidiary Innovation and Performance

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Abstract

This study examines how various dimensions of headquarters control—extent of control, focus of control, and formal mechanisms—affect the innovation and financial performance of foreign subsidiaries. Based on agency theory and resource-based view (RBV), this study empirically tests the conceptual model using survey data from 200 subsidiaries operating in China. The results of hierarchical regression analysis show that control mechanisms have a positive effect on both incremental and radical innovation, and the effect on incremental innovation is stronger. In contrast, the extent and focus of control did not have a significant effect on either type of innovation. Both types of innovation displayed a significant positive relationship with financial performance, and the influence was particularly greater for radical innovation. These results suggest that the control structure of headquarters needs to be aligned with the characteristics of innovation activities. This study contributes to the international business literature by clarifying the specific roles of headquarters control and providing practical implications for the balance between control and autonomy for managing global innovation.

Keywords: Headquarters Control; Subsidiary Innovation; Financial Performance; Agency Theory; Resource-Based View.

1. Introduction

In today's increasingly complex and globally integrated business environment, the success of multinational enterprises (MNEs) largely depends on how effectively they manage their geographically dispersed operations. One of the most pressing challenges in this context is how headquarters can exercise control over their overseas subsidiaries in a way that promotes strategic alignment while not undermining local autonomy. Since subsidiaries operate in diverse institutional and market contexts, the need for sophisticated control mechanisms is particularly emphasized (Kano & Verbeke, 2015; Nell, Kappen, & Laamanen, 2017). Excessive control can stifle local autonomy and innovation, while insufficient control can lead to strategic misalignment or inefficiency (Mudambi, Piscitello, & Rabbiosi, 2014). For this reason, the balance between the central coordination function of headquarters and the autonomy of subsidiaries has emerged as a key topic in international business (IB) research, and it is an important perspective for understanding how MNEs adapt to changing external environments while maintaining organizational consistency (Andersson, Forsgren, & Holm, 2015; Ciabuschi, Dellestrand, & Kappen, 2012a). Therefore, identifying the appropriate intensity, and focus of headquarters control is not only a management practice issue but also a key research topic for developing theories on MNE governance and performance.

Reflecting the importance of this issue, there is a growing body of research exploring how MNEs exercise control over their subsidiaries in various strategic contexts. For example, some studies have focused on the role of bureaucratic control in standardizing procedures and the function of output control in monitoring performance outcomes (Piperopoulos, Wu, & Wang, 2018; Zhou & Wu, 2010). In contrast, cultural control is concerned with the mechanisms by which corporate values and norms are diffused across geographically separated organizational units (Yamin & Golesorkhi, 2010; Verbeke & Kano, 2016). Beyond control mechanisms, the intensity of headquarters control has also been questioned, with some studies pointing out that excessive centralization may hinder the development of capabilities at the subsidiary level (Marano, Arregle, Hitt, Spadafora, & van Essen, 2016). Meanwhile, research on the focus of control underlines the differences between strategic oversight and operational management, arguing that different approaches have different effects on subsidiary behavior and performance (Ciabuschi, Dellestrand, & Martin, 2017; Liu & Meyer, 2020). Such studies highlight the complexity and heterogeneity of headquarters control, suggesting that the form and level of control can lead to different outcomes depending on the context. Despite this research progress, however, studies that explicitly analyze how various forms of headquarters control affect the innovation performance of foreign subsidiaries are surprisingly rare. In particular, few studies have examined incremental innovation and radical innovation separately. Furthermore, very few studies have examined how this innovation performance is linked to specific financial performance in the local markets where subsidiaries are located. Most existing studies concentrate on the overall impact of control on subsidiary autonomy or do not systematically investigate the link between innovation and performance (Andersson, Dasí, Mudambi, & Pedersen, 2016; Li, Strange, Ning, & Sutherland, 2016). In addition, some studies that deal with innovation itself overlook the difference between

incremental and radical innovation, which require different resources, have different levels of risk, and have different strategic implications (Fainshmidt, Andrews, Gaur, & Schotter, 2021). Similarly, while the literature acknowledges that innovation contributes to MNE competitiveness, the mediating role of innovation in the relationship between headquarters control and performance has not been fully explored (Stadler, Rajwani, & Karaba, 2014). This research gap is problematic because understanding this path is crucial for both theoretical development and strategic decision-making in international firms. This study aims to fill this gap by empirically exploring how headquarters control influences subsidiary innovation and how this innovation in turn contributes to the local financial performance of subsidiaries.

To this end, this study develops a conceptual model based on agency theory and the resource-based view (RBV) and empirically verifies it. Specifically, it explores how headquarters exerts three dimensions of control over subsidiaries: (1) control mechanisms (means of exercising control), (2) the extent (tight vs. loose) of control exerted by headquarters, and (3) the focus of control between strategic focus and operational focus. Then, it scrutinizes how these control dimensions affect two types of innovation at the subsidiary level: incremental innovation and radical innovation. Finally, we examine how these types of innovation contribute to the financial performance of subsidiaries in their local markets. The main research questions of this study are as follows: (1) How do different control mechanisms affect subsidiaries' incremental and radical innovations, respectively? (2) How does the intensity and the focus of control affect subsidiaries' innovation performance? (3) What mediating roles do incremental and radical innovations play in the relationship between headquarters' control and subsidiaries' financial performance?

This study makes several contributions to the literature on IB. First, by decomposing the control of subsidiaries into multiple dimensions, namely extent, focus, and mechanism, the head office seeks to go beyond the simplistic concept of control that is commonly found in existing studies (Nell et al., 2017; Liu & Meyer, 2020). This multidimensional approach allows for a more precise understanding of how each aspect of control differentially affects subsidiary innovation. Second, by distinguishing innovation into incremental innovation and radical innovation, it complements the limitations of existing studies that usually treat innovation as a single and homogeneous concept. Third, by clarifying the mediating role of innovation in the relationship between control and subsidiary financial performance, the head office presents a process-oriented theoretical framework that explains the impact of control on performance (Li et al., 2016; Andersson et al., 2016). Fourth, by integrating agency theory and RBV, this study provides a more comprehensive theoretical framework that encompasses the two tasks of control efficiency and capability development, and theoretically reconciles the tension between control and innovation. These contributions contribute to advancing theoretical discussions on the coordination mechanisms of MNEs, subsidiary development, and global performance dynamics.

2. Theories and Hypotheses

2.1. Agency theory and its relevance to headquarter-subsidiary control in MNEs

Agency theory sees relationships within organizations as contractual arrangements between principals and agents, who often have different interests and asymmetric access to information (Jensen & Meckling, 1976). In the case of MNEs, the headquarters (HQ) plays the role of the principal and delegates decision-making authority and operational responsibility to overseas subsidiaries. Subsidiaries act as agents operating in diverse environments, and the contexts they are in are complex and heterogeneous (O'Donnell, 2000; Verbeke & Greidanus, 2009). This delegation of authority creates room for opportunistic behavior due to goal misalignment between headquarters and subsidiaries and differences in local knowledge and incentive structures (Eisenhardt, 1989; Roth & O'Donnell, 1996). Therefore, MNEs must design governance systems that effectively monitor and control subsidiary behavior while minimizing agency costs (Birkinshaw, Bouquet, & Barsoux, 2016).

Within the theoretical framework, control mechanisms implemented by headquarters—i.e., bureaucratic control, output-based control, and cultural control—serve as tools to mitigate agency problems, contribute to more effective monitoring of subsidiary behavior, and align it with the firm's strategic goals. Bureaucratic control establishes rules and procedures to structure subsidiary discretion (Harzing & Feely, 2008), while output control establishes accountability through performance goals and aligns reward systems with goals (Gong, Shenkar, Luo, & Nyaw, 2007). Cultural control can reduce monitoring costs and increase compliance even in environments where tasks are difficult to standardize by promoting shared norms and cognitive alignment within the organization (Noorderhaven & Harzing, 2009). This control mechanism reduces information asymmetry between headquarters and subsidiaries, inhibits opportunistic behavior, and induces more predictable organizational behavior (Nell et al., 2017).

Another key concept in agency theory is the extent (i.e., intensity) of control, that is, how much autonomy the headquarters allows to the subsidiary. This theory posits that the higher the level of risk or information asymmetry perceived by the headquarters, the more likely it is to strengthen the level of control (O'Donnell, 2000; Poppo & Zenger, 2002). However, recent studies warn that excessive control can discourage innovation by lowering the motivation of local managers and limiting entrepreneurial autonomy (Birkinshaw, Ambos, & Bouquet, 2016; Ciabuschi et al., 2017). This insight is especially important in innovation-focused subsidiaries, where creativity and sensitivity to local conditions are key. Therefore, agency theory supports a situational approach to control rather than a one-size-fits-all approach, and recommends adjusting the intensity of control according to the level of trust in the subsidiary, the complexity of the task, and the strategic role of the subsidiary (Andersson et al., 2016).

Finally, agency theory provides a useful theoretical framework for understanding how headquarters control influences the innovation performance of subsidiaries, which in turn is reflected in financial performance. Operational control can hinder radical innovation by limiting the subsidiary's risk taking and adaptability, especially in situations where local adaptability is required (Schotter, Mudambi, Doz, & Gaur, 2017). Conversely, excessively wide control can lead to inefficient use of resources or deviation from headquarters' strategy, which can hinder the achievement of performance goals (Li et al., 2016). In this context, innovation plays a mediating role in the relationship between headquarters control and subsidiary financial performance (Stadler et al., 2014). A well-coordinated control system can help subsidiaries pursue both incremental and radical innovation, which is possible when subsidiaries can act autonomously based on market-specific knowledge while remaining consistent with headquarters' expectations and strategic direction (Liu & Meyer, 2020; Marano et al., 2016). Thus, agency theory provides a central theoretical foundation for explaining the dynamic interactions among headquarters control, subsidiary innovation, and value creation in foreign markets.

2.2. The extent of HQs control and subsidiary innovation

The extent to which MNE headquarters exercise control over their overseas subsidiaries is a central issue in the field of IB, and is particularly important in relation to the impact of such control on innovation performance. The extent of control refers to the extent to which headquarters monitors, provides guidance, and intervenes in the operations and decision-making processes of subsidiaries (Ciabuschi, Forsgren, & Martín Martín, 2012b). Higher levels of control are generally associated with closer coordination, standardized procedures, and closer alignment with the strategic goals of the headquarters, which may favor incremental innovations that build on existing technologies and procedures (Junni, Sarala, Taras, & Tarba, 2013). When the intensity of control is clearly defined and consistently applied, subsidiaries are better positioned to refine processes, reduce uncertainty, and implement incremental improvements that meet corporate expectations (Anderson, Sutherland, & Severe, 2015). Thus, the extent of control can act as a structural enabler of small-scale, non-exploitative innovation within subsidiaries.

However, the same level of high control does not consistently have a positive effect on all types of innovation. Radical innovation is defined as the development of fundamentally new products, processes, or business models, which requires greater flexibility, experimentation, and risk-taking than incremental innovation (Hesse, 2020). When headquarters exerts tight control through formalized monitoring systems or standardized procedures, it can stifle the autonomy and creativity of subsidiaries to undertake exploratory or disruptive innovation (Ambos, Andersson, & Birkinshaw, 2010). In such situations, the subsidiary may have less discretion to deviate from existing procedures or explore new opportunities, which may consequently hinder its ability to innovate radically. Therefore, a higher span of control may be advantageous for incremental innovation, but at the same time, it may act as a constraint on the subsidiary's ability to innovate radically.

Despite this theoretical dichotomy, empirical evidence on the effect of the extent of control on innovation performance remains conflicting. Some studies report that subsidiaries operating under strong headquarters control exhibit higher innovation performance due to increased resource access and strategic guidance (Ciabuschi, Dellestrand, & Holm, 2012c). On the other hand, other studies argue that tight control can lead to organizational inertia and inhibit initiative-taking, especially in heterogeneous or dynamic local environments (Strutzenberger & Ambos, 2014). These conflicting findings suggest that it is crucial to distinguish between types of innovation—incremental innovation and radical innovation—when assessing the impact of headquarters control. A more sophisticated understanding of this relationship is essential, especially as multinationals seek to balance global integration and local responsiveness in their innovation strategies.

Based on the above discussion, we propose the following hypotheses. First, we hypothesize that the higher the level of control (i.e., tight control) of the headquarters, the more positively it will be related to the incremental innovation of the subsidiary. This is because the structured environment and centralized coordination contribute to promoting small-scale improvements and operational efficiency. Conversely, we hypothesize that the higher the level of control of the headquarters, the more negatively it will be related to the radical innovation of the subsidiary. This is because the centralized decision-making structure reduces autonomy and flexibility. These hypotheses reflect the dual nature of control and the differential impact of control depending on the type of innovation pursued by the subsidiary.

To improve clarity, this subsection was streamlined by removing overlapping theoretical arguments while retaining the core logic linking the extent of headquarters control to incremental and radical innovation outcomes.

Hypothesis 1a. The extent of headquarters control is positively related to subsidiaries' incremental innovation.

Hypothesis 1b. The extent of headquarters control is negatively related to subsidiaries' radical innovation.

2.3. The focus of HQs control and subsidiary innovation

In IB, not only the intensity of control from the headquarters but also the focus of that control plays a pivotal role in shaping the innovation performance of the subsidiary. The focus of control refers to the specific area that the headquarters emphasizes in its oversight of subsidiaries, such as financial domains, operational efficiency, strategic alignment, or innovation objectives, when interacting with the subsidiary (Verbeke & Asmussen, 2016). The direction of this control determines which functions receive the most supervision, incentives, and guidance, and ultimately reflects the strategic priorities of the headquarters (Bouquet, Morrison, & Birkinshaw, 2009). For example, when headquarters focuses control on innovation-related goals, this can act as a strong support signal to subsidiaries and provide them with resources to develop new products and processes. On the other hand, when control is focused on financial performance or efficiency indicators, subsidiaries may prioritize short-term cost reduction over long-term innovation. Therefore, understanding control focus is key to explaining heterogeneity in innovation performance across subsidiaries (Kostova, Nell, & Hoenen, 2018).

A strategic focus on incremental innovation from headquarters can create a conducive environment for subsidiaries to refine existing technologies and practices. When HQs underscore process improvements, quality control, and technical optimization, subsidiaries are more likely to engage in exploitative learning that enhances operational effectiveness (Poppo, Zhou, & Li, 2016). This alignment of control focus with incremental innovation goals facilitates knowledge sharing, routine formalization, and best-practice transfer, all of which are key drivers of small-scale, cumulative innovation. Additionally, the clarity of performance expectations associated with such control focus reduces uncertainty for subsidiary managers and encourages calculated improvements within bounded risk profiles. In essence, headquarters can use a targeted focus to nudge subsidiaries toward controlled experimentation and refinement activities (Yang, Mudambi, & Meyer, 2008). Therefore, we propose that a control focus oriented toward operational and process-level outcomes will be positively associated with subsidiaries' incremental innovation.

However, the influence of headquarters' control focus on radical innovation may differ from the logic described above. Radical innovation involves exploring new and high-risk ideas outside of existing procedures or routines, which usually requires a significant degree of local discretion and a sensitive response to new opportunities (Ciabuschi et al., 2012a). If headquarters focuses its control on narrow areas such as operating metrics or cost control, subsidiaries may perceive that they have limited strategic flexibility to invest in these uncertain and resource-intensive innovation paths. Previous studies have shown that a centralized strategic focus can constrain the entrepreneurial behavior of subsidiaries, thereby inhibiting the occurrence of transformational innovations (Ambos, Andersson, & Birkinshaw, 2010). Even when innovation is formally encouraged, if the control focus of the headquarters is not clearly aligned with long-term exploration, subsidiaries may not have the incentives and psychological safety necessary to pursue radical projects. This tension demonstrates the duality of control focus, suggesting that mismatches between the control focus of the headquarters and the local innovation logic can have negative effects on exploratory innovation activities.

Based on the above discussion, we hypothesize that the control focus of the headquarters will have different effects depending on the type of innovation of the subsidiary. If the headquarters' control focus is on process and operational improvement, the level of incremental innovation is expected to increase as routines within the subsidiary are strengthened and structured guidance is provided. On the contrary, such control focus may have a negative effect on the radical innovation of the subsidiary, because if the strategic attention of the headquarters is concentrated on short-term performance and efficiency-oriented results, it may discourage the subsidiary's risk taking or new

exploration activities. These conflicting effects shed light on the importance of alignment between the control orientation of the headquarters and the innovation needs of the subsidiary. Accordingly, we propose the following hypothesis:

This section was refined to reduce conceptual repetition and to more clearly distinguish how the focus of headquarters control differentially affects incremental versus radical innovation.

Hypothesis 2a: HQs' focus of control over foreign subsidiaries is positively associated with subsidiaries' incremental innovation.

Hypothesis 2b: HQs' focus of control over foreign subsidiaries is negatively associated with subsidiaries' radical innovation.

2.4. HQs' control mechanisms and subsidiary innovation

Control mechanisms refer to the specific tools, procedures, and systems that the headquarters uses to manage and coordinate the activities of its foreign subsidiaries. These mechanisms may include formal tools such as performance appraisal systems, budgeting procedures, reporting systems, and incentive structures (Kostova et al., 2018). The choice and implementation of control mechanisms reflects the extent to which the headquarters relies on standardized systems or discretionary authority to achieve alignment across organizational units (Luo & Wang, 2012).

Indeed, formalized control mechanisms are crucial to ensuring strategic coherence within geographically dispersed MNEs, especially when innovation activities need to be coordinated across locations. In particular, whether these mechanisms are outcome-based, behavior-based, or input-based has different implications for the subsidiary's approach to innovation (Andersson et al., 2015). In addition to ensuring accountability and alignment, these mechanisms also shape the type and intensity of innovation behavior at the subsidiary level. Therefore, understanding how headquarters designs and implements control mechanisms is critical to assessing their impact on the innovation performance of subsidiaries.

When control mechanisms are properly aligned with innovation goals, they can play a useful facilitating role in promoting incremental innovation. By establishing structured feedback loops, standardized routines, and clear performance indicators, headquarters can reduce ambiguity within subsidiaries and foster predictable and repeatable innovation behaviors (Poppo et al., 2016). Such a system simultaneously provides motivation and procedural clarity for subsidiaries to continuously enhance existing products or processes. For example, reward systems linked to continuous improvement or process efficiency can encourage exploitative learning and create an organizational culture that values operational efficiency. In addition, centralized mechanisms that systematize benchmarking and sharing of best practices can help subsidiaries recognize innovation gaps and introduce incremental solutions. Thus, if control mechanisms are designed to support stability and reproducibility, they are likely to be positively related to subsidiaries' incremental innovation performance.

However, the effect of control mechanisms on radical innovation is more complex. Radical innovation involves experimentation, risk-taking, and departures from established routines, activities that are not always compatible with rigid and formalized control structures (Ciabuschi et al., 2012a). Overly prescriptive or bureaucratic control mechanisms can inhibit the autonomy and flexibility that subsidiaries need to engage in exploratory innovation. Previous research has exhibited that formal controls may help maintain consistency, but they can also stifle creativity and reduce the agility needed to recognize and respond to new opportunities (Gong, Kim, & Lee, 2013). In particular, when subsidiaries face dynamic or heterogeneous local environments, rigid mechanisms can exacerbate misalignment and further reduce the effectiveness of radical innovation. Thus, unless control mechanisms are explicitly designed to accommodate adaptability, they can function as obstacles to transformative innovation. This paradox illustrates the problem of balancing control and creativity within MNEs, especially when pursuing innovations that disrupt the established order.

Minor refinements were introduced in this section to improve readability and ensure consistency with the overall theoretical framework.

Hypothesis 3a: HQs' control mechanisms over foreign subsidiaries are positively associated with subsidiaries' incremental innovation.

Hypothesis 3b: HQs' control mechanisms over foreign subsidiaries are negatively associated with subsidiaries' radical innovation.

2.5. Resource-based view

The RBV provides a powerful theoretical framework for explaining how firms achieve superior financial performance by developing and strategically leveraging internal capabilities. Among these capabilities, innovation activities are particularly central, and among them, incremental and radical innovations are widely regarded as knowledge-intensive, path-dependent, and organization-specific resources. RBV emphasizes that resources must be valuable, rare, difficult to imitate, and non-substitutable to provide competitive advantage (Barney, 1991), and innovation meets these criteria because it occurs based on the firm's unique procedures, tacit knowledge, and organizational learning.

Incremental innovation in the form of improving existing products and processes improves efficiency and operational excellence, resulting in cost savings and stable financial returns. On the other hand, radical innovation breaks down existing boundaries by creating new knowledge and markets, enabling firms to establish leading positions in emerging areas. Radical innovations involve greater uncertainty, but when managed successfully, they can deliver more than proportional financial returns. Teece, Peteraf, and Leih (2016) argue that innovation functions as a dynamic capability that enables firms to capture and exploit opportunities in rapidly changing environments. Therefore, innovation is not simply a result of existing resources, but also a key input required to continuously renew a firm's resource base. From this perspective, financial performance depends not only on whether or not the firm possesses innovation capabilities, but also on how well they are aligned and utilized within a strategic framework. Accordingly, firms that develop and sustain innovation as a core organizational resource are more likely to achieve superior and sustained financial performance.

The RBV provides a clearer explanation of why the financial returns from innovation vary across firms operating in the same industry. These differences arise from the way firms internalize, develop, and apply innovation-related capabilities over time. For example, Laursen and Salter (2006) report that MNEs that invest in openness and absorptive capacity achieve greater innovation performance, which ultimately leads to higher profitability. From the RBV perspective, innovation is not simply a technological output, but a firm-specific capability embedded in complementary assets such as managerial know-how, cross-functional integration, and strategic insight.

Incremental innovations are easier to standardize and better aligned with short-term financial objectives because they leverage existing knowledge and infrastructure. Radical innovations, on the other hand, are inherently more risky and resource-intensive, requiring organizational slack, experimentation, and long-term strategic investment. Ritala and Hurmelinna-Laukkanen (2013) argue that a firm's underlying capabilities, such as an appropriability regime and strategic alliances, are important for generating returns from radical innovations. Firms that integrate both incremental and radical innovations into their resource portfolios build more robust performance trajectories that can withstand external shocks. Importantly, RBV underlines that the financial value of innovation is not realized automatically, but depends on the unique integration mechanisms of the firm that can realize the potential value of innovation. Therefore, the firm must not simply

create innovation, but also build organizational routines that can convert it into financial success. This resource-based logic positions innovation as a key driver of firm performance in dynamic and competitive markets.

Another implication of RBV is that the type of innovation has a different impact on performance depending on the strategic orientation of the firm and the market environment. Subramaniam and Youndt (2005) emphasize that incremental innovation relies heavily on the effective use of existing intellectual capital, while radical innovation requires the continuous renewal of human and social capital. Firms with a strong learning orientation and decentralized decision-making structure are better positioned to translate innovation into financial performance, especially in dynamic environments. From the perspective of RBV, these organizational characteristics are not simply managerial choices, but are considered as an essential part of the firm's resource configuration. In addition, the scalability and imitability of innovation results depend on how well the innovation is integrated into the firm's value chain and business model.

Radical innovations are rare, but if well protected and commercialized, they can generate significant rents through temporary monopolies or first mover advantages. Incremental innovation, on the other hand, supports financial stability and consistency through process improvement and quality improvement. In both cases, how effectively a firm coordinates its internal and external resources—from R&D talent to supply chain partnerships—determines the magnitude of its financial performance. Thus, the RBV places innovation at the center of strategic resource management, highlighting alignment with corporate-level objectives beyond mere creation. Ultimately, the extent to which innovation contributes to financial performance reflects how comprehensively a firm can manage and leverage its knowledge-based resources.

Finally, the RBV sheds light on the path-dependent and cumulative nature of innovation capabilities, which further reinforces the role of innovation in contributing to financial performance. Unlike tangible assets that depreciate over time, innovation-related capabilities can grow through exploitation, learning, and recombining. Teece et al. (2016) explain that dynamic capabilities, including innovation, enable firms to adapt to environmental uncertainty and reconfigure their resource base. This adaptability enhances the long-term financial resilience of a firm by creating new growth avenues and reducing its vulnerability to market volatility. Furthermore, innovation capabilities can be the basis for organizational ambidexterity, allowing a firm to balance exploration and exploitation according to strategic needs. Firms that integrate innovation routines into their operational and strategic processes can enjoy economies of learning, which accumulate over time to create sustainable financial advantages. These advantages are difficult for competitors to imitate, especially when combined with complex social and organizational processes. Thus, the RBV offers a strong theoretical foundation for understanding innovation as a sustainable resource that drives financial performance, rather than a one-time activity. As innovation becomes more deeply embedded in a firm's identity and capabilities, it contributes to financial performance not only directly through new products or services, but also indirectly through increased agility, improved reputation, and building stakeholder trust.

2.6. Incremental innovation and subsidiary financial performance

Incremental innovation refers to systematic improvements to existing products, processes, or services in small but meaningful ways. While radical innovations involve major technological or market breakthroughs, incremental innovations enhance existing capabilities by optimizing operational efficiency and refining product features. This type of innovation can be more easily integrated into existing organizational routines and generally tends to be less risky and resource-intensive (Ringov, 2017). In the context of MNE subsidiaries, incremental innovation allows them to respond nimbly to local market demands without significantly deviating from their global strategy. It thus plays a key role in subsidiary adaptation, enabling them to remain competitive even in situations where autonomy is limited and performance monitoring is high. The RBV views incremental innovation as a firm-specific capability based on accumulated knowledge and embedded routines, which contributes to competitive advantage (Teece et al., 2016). These characteristics make incremental innovation a key way for subsidiaries to effectively utilize existing resources and generate results. It enables continuous adjustment and fine-tuning of internal operations, promotes learning economies, and contributes to reducing process-level inefficiencies. It also increases customer satisfaction by continuously improving product quality and reliability, which leads to increased customer retention and stable profits. Incremental innovation thus becomes a means of continuously delivering financial value without the disruption that comes with radical change.

Several previous studies have shown that incremental innovation is positively related to various corporate performance indicators, such as productivity, profitability, and cost reduction. By strengthening internal capabilities and improving process excellence, incremental innovation contributes to improving resource utilization efficiency and operational control. For example, Alegre and Chiva (2013) document that incremental innovation has a significant positive relationship with firm-level performance when supported by organizational learning capabilities. Similarly, Li et al. (2016) show that Chinese firms that have made foreign direct investments also boost domestic performance through incremental learning and innovation. In the context of MNEs, incremental innovations are often aligned with performance indicators such as return on investment set by the headquarters. This alignment provides both strategic consistency and internal legitimacy, helping subsidiaries meet expectations without breaking away from established routines (Benner & Tushman, 2015). Furthermore, incremental improvements often result in clear and measurable outputs, which are easily tracked by formal control systems, making them advantageous in cross-border management situations. These characteristics make incremental innovation a particularly attractive option for subsidiaries with limited discretion or structural constraints in resource allocation. Incremental innovation also increases the predictability and stability of financial returns by reducing dispersion and uncertainty in performance. This mechanism explains why incremental innovation is increasingly recognized as a central driver of sustainable performance in subsidiaries around the world.

Incremental innovation helps subsidiaries effectively respond to complex external environments while maintaining the stability of internal operations. Because it is based on existing knowledge and infrastructure, it allows them to respond to changes in a flexible and modular manner without requiring a complete organizational change. This adaptability is especially crucial in IB environments where subsidiaries must coordinate diverse institutional demands with headquarters' goals (Andersson et al, 2016). Incremental innovation allows subsidiaries to secure local adaptability by tailoring their products to local market preferences while maintaining global integration. This duality is central to value creation within MNEs and is consistent with the RBV's emphasis on leveraging context-dependent capabilities. Furthermore, by embedding incremental innovation into routines, subsidiaries build routines that enhance organizational learning and improve long-term performance (Jansen, Van den Bosch, & Volberda, 2006). Once institutionalized, these routines reduce the marginal cost of additional innovation and allow subsidiaries to accumulate innovation efforts over time. In this way, incremental innovation contributes not only to short-term financial performance but also to the long-term strategic resilience of subsidiaries. Firms that master these innovation capabilities will be positioned to maintain sustained performance even in dynamically changing external environments.

Taken together, the above discussion suggests that incremental innovation is a low-risk, high-reward capability that enables subsidiaries to escalate financial performance by increasing efficiency, creating customer value, and strengthening organizational alignment. It allows subsidiaries to generate economic benefits from accumulated knowledge and existing operating systems without large-scale restructuring or disruptive changes. Incremental innovation is a practical and effective strategy for subsidiaries operating under the governance structure

of complex MNEs because it is aligned with both internal control mechanisms and external market expectations. Accordingly, we propose the following hypothesis:

Hypothesis 4. Incremental innovation is positively related to subsidiary financial performance.

2.7. Radical innovation and subsidiary financial performance

Radical innovation is a fundamental change in a product, service, or process that deviates from the existing technological or market path. Unlike incremental innovations that optimize current capabilities, radical innovations introduce new knowledge, redefine value creation mechanisms, and often result in industry standards being shaken. Radical innovations therefore have the potential to create entirely new markets, reset customer expectations, and provide considerable first-mover advantages. From the resource-based view (RBV), radical innovation is seen as a unique and difficult-to-imitate capability unique to a firm, which, when managed effectively, can generate substantial economic rents (Teece et al., 2016). Although it generally carries higher risks, radical innovation is a main driver of long-term financial growth and strategic resurgence. In the context of MNE subsidiaries, radical innovation enables them to respond proactively to technological change and institutional transformation. In particular, when a subsidiary develops new technologies or capabilities that can be applied at a global level, this can further enhance the strategic importance of the subsidiary to the headquarters (Verbeke & Kano, 2016). Of course, not all radical innovations are successful, but the cumulative impact of successful radical innovations can reposition the firm within the global value chain and lead to sustained performance improvements. Therefore, despite the inherent risks, radical innovation is often considered a key element of high-performance growth strategies in knowledge-intensive and dynamic industries.

A number of empirical studies have exhibited that radical innovation is closely linked to improved firm performance, especially in uncertain or rapidly changing environments. For example, Jansen et al. (2006) indicate that firms that engage in exploratory innovation, which is closely related to radical innovation, achieve better performance when faced with high environmental dynamism. Radical innovation can create temporary monopolies through intellectual property rights, innovative designs, and disruptive business models. These advantages lead to premium pricing, retention of customers, and blocking of imitation by competitors, which in turn increases profitability (Ritala & Hurmelinna-Laukkanen, 2013). In the perspective of MNEs, subsidiaries that create radical innovations often occupy a higher position in internal knowledge networks and are allocated more resources and autonomy. This process of 'innovation-based upgrading' strengthens a virtuous cycle of capability building and performance improvement (Andersson et al., 2016). Furthermore, radical innovation, when linked to sustainability, digital transformation, and other global strategic values, can also contribute to brand differentiation and market legitimacy. These non-financial benefits can further support the financial success of subsidiaries by increasing stakeholder trust and long-term loyalty. In short, radical innovation is a high-risk, high-reward strategy that allows subsidiaries to outperform competitors, redefine industry norms, and achieve long-term financial performance. Not all attempts are successful, but when they are, they can significantly enhance a firm's position in the global marketplace. For MNE subsidiaries, engaging in radical innovation can help increase their strategic role and financial contribution within the overall corporate ecosystem. Given the potential for radical innovation to disrupt markets and generate superior financial performance, we propose the following hypothesis:

Hypothesis 5. Radical innovation is positively related to subsidiary financial performance.

All the hypotheses discussed above are presented in Figure 1.

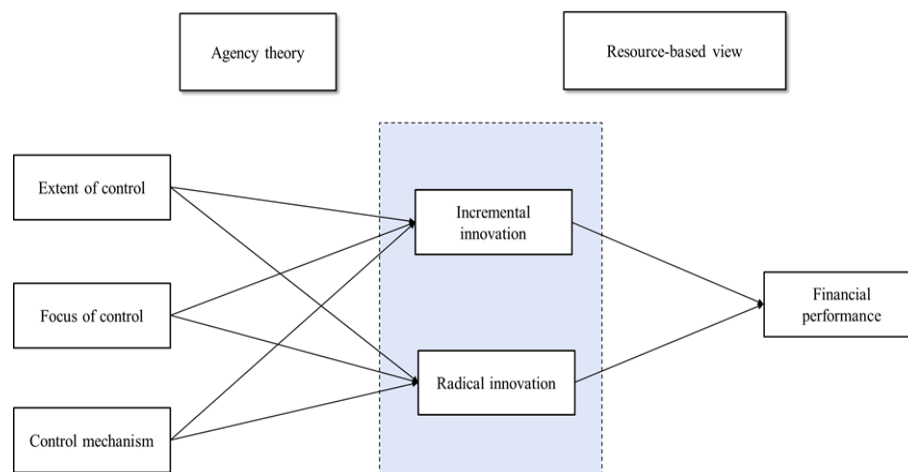


Fig. 1: Research Model.

3. Data and Methods

To empirically test our hypotheses, we conducted a survey of foreign subsidiaries operating in China. The sampling frame was constructed using the database provided by the Ministry of Commerce (MOFCOM), which contains detailed information on foreign-invested enterprises registered throughout China. We limited the survey target firms to subsidiaries that have been operating in China for more than three years and have at least 20 full-time employees. These criteria are intended to ensure that the participating firms have a certain level of organizational maturity and are suitable for evaluating the key variables of this study, namely, innovation activities and headquarters control mechanisms.

The survey was conducted on senior executives, including the general manager, deputy general manager, and department heads, who are directly involved in strategic decision-making at headquarters. They were selected as respondents because they have a comprehensive understanding of both the influence of headquarters and the innovation activities within subsidiaries. The structured questionnaire was distributed between late 2024 and early 2025. Considering linguistic and cultural differences, the questionnaire was originally written in English, translated into Chinese, and then back-translated into English. This process was undertaken by two independent bilingual experts to ensure the accuracy and conceptual equivalence of the translation.

We initially distributed 600 questionnaires to subsidiaries located in major economic zones such as the Yangtze River Delta, Pearl River Delta, and Bohai Economic Rim. A total of 238 questionnaires were returned. After careful review of the returned questionnaires, we found that some of them contained excessive missing values, which may have reduced the reliability of the data. Therefore, only 200 complete and valid questionnaires were included in the final analysis. As a result, the usable response rate was calculated to be 33.3%. To assess the possibility of non-response bias, we compared several corporate characteristics, such as company size, establishment years, and industry type, between early and late respondents based on the timing of the response. As a result, no statistically significant differences were found, suggesting that non-response bias was minimal.

The final sample covers a wide range of industries, including manufacturing, service, and high-tech industries, and consists of subsidiaries headquartered in North America, Europe, and other parts of Asia. This diversity not only enhances the generalizability of the findings, but also helps capture the complexity of MNEs' activities and innovation behaviors in the Chinese institutional context.

All constructs used in this study were measured using a multi-item scale based on existing literature on IB and innovation. Respondents indicated their level of agreement for each item using a 7-point Likert scale (1 = very highly disagree; 7 = very highly agree). To ensure content validity, the existing scale was reviewed and some items were modified if necessary to fit the context of foreign subsidiaries in China. The detailed description of the measurement items and sources is provided in Appendix A. The appendix contains the full set of measurement items for the key variables, including control dimensions, innovation performance (both incremental and radical), and financial performance, as well as the control variables. All scales were confirmed to have acceptable levels of reliability and validity in subsequent analyses.

4. Empirical Analyses, Results, and Discussions

4.1. Preliminary diagnostics

As part of the preliminary diagnosis, reliability analysis was conducted to assess the internal consistency of the multi-item scale. Cronbach's α coefficient for the main variables, including control mechanisms, incremental and radical innovation, and financial performance, were calculated, and the results are presented in Appendix A. All α values exceeded the generally acceptable standard of 0.70, indicating good to excellent reliability (Hair, Black, Babin, & Anderson, 2019). This suggests that the questionnaire items used to measure each construct consistently measure the same theoretical concept.

Before testing the hypotheses, the possibility of multicollinearity and common method bias (CMB) was checked to ensure the robustness of the regression analysis results. As shown in Table 1, the correlation coefficients among the variables included in this study were generally at a medium level, and no pair of variables exceeded 0.80. This suggests that multicollinearity is unlikely to be a serious problem (Hair et al., 2019). To evaluate this problem more precisely, the variance inflation factor (VIF) was calculated for all independent and control variables. As a result, all VIF values were significantly below the generally acceptable criterion of 10, confirming that multicollinearity was not a problem in this dataset (Hair et al., 2019).

To address the possibility of CMB, two complementary procedures were applied. First, Harman's single factor test was performed, which showed that no single factor explained most of the total variance, confirming that no specific common factor dominates the data structure. Second, a marker variable approach was applied to introduce a variable theoretically unrelated to the main constructs, 'preference for the color blue'. The analysis results exhibited that this marker variable did not demonstrate a significant correlation with the dependent variable, which further proves that CMB is unlikely to undermine the validity of the results of this study (Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, 2012).

4.2. Main regression results

Table 2 summarizes the results of hierarchical regression analysis from Model 1 to Model 6. In Model 1, financial performance was set as the dependent variable and only control variables were input. In Model 2, three major independent variables were added: extent of control, focus of control, and control mechanisms. Models 3 and 4 analyzed the effects of these headquarters-level control dimensions on incremental innovation and radical innovation, respectively. Model 5 verified the indirect effect on financial performance through the mediating effect of the two types of innovation. Finally, Model 6 presented the full model including all variables. In addition, stepwise regression analysis was performed in parallel with Model 6 to confirm the robustness of the main analysis results.

Several key findings can be drawn from the analysis results. First, both incremental innovation and radical innovation had a positive and significant effect on financial performance, and the coefficient of radical innovation was particularly stronger. This result supports the existing argument that radical innovation, although it carries greater risk, generates higher performance when successful. Second, control mechanisms have a significant positive effect on both types of innovation (Models 3 and 4), suggesting that formal structures such as reporting systems and performance monitoring are effective tools for promoting subsidiary innovation. In particular, control mechanisms have a stronger effect on incremental innovation, indicating that these mechanisms play a pivotal role in enabling continuous improvement of the daily operational basis.

However, the extent of control and focus of control of the headquarters did not have a significant effect on incremental innovation (Model 3) and did not have a statistically significant effect on radical innovation (Model 4). These results point out that direct or strategic control of the headquarters may not play a decisive role in promoting innovation at the subsidiary level. This is because contextual or operational constraints may affect the process in which the headquarters' control is translated into the subsidiary's innovation performance.

Other notable findings include the effect of intra-industry competition, which has a positive effect on both incremental and radical innovation. This result suggests that subsidiaries in a more competitive environment are more likely to engage in innovation activities regardless of the type of innovation. Meanwhile, the number of years since the establishment of a subsidiary has a negative and significant relationship with radical innovation, indicating that organizational inertia can weaken the ability of a subsidiary to pursue disruptive innovation.

These results indicate that formal control mechanisms function more as innovation enablers than as constraints, particularly for routine-based incremental innovation.

4.3. Robustness check

To ensure the stability of our research results, we performed stepwise regression analysis. As a result, there was no substantial difference in significance and coefficient direction compared to the main regression analysis results, which further strengthened the robustness of our empirical results. This verification procedure contributed to reducing concerns about model over fitting or omitted variable bias.

4.4. Discussion: why extent and focus of control do not enhance incremental innovation

These non-significant findings may be explained by the fact that incremental innovation is largely driven by bottom-up routines and localized problem-solving rather than top-down strategic intervention by headquarters.

Furthermore, in the Chinese institutional context, regulatory constraints and operational rigidity may suppress the observable effects of control extent and focus on subsidiary innovation.

One of the most crucial theoretical but somewhat unexpected empirical findings was that neither the extent of control nor the focus of control had a considerable effect on the subsidiary's incremental innovation. In theory, it is often argued that a broader span of control and a more strategically coordinated control structure can promote innovation by steering subsidiary behavior toward corporate goals (Ghoshal & Bartlett, 1990; Eisenhardt, 1989). However, incremental innovation typically occurs through bottom-up, context-specific learning rather than top-down, and is deeply embedded in everyday work routines and problem-solving practices (Nonaka & Toyama, 2003). It has more to do with local responsiveness and operational sophistication than with a firm's strategic alignment (Ambos et al., 2010).

When headquarters exerts extensive or strategic control, this may inadvertently inhibit subsidiary autonomy and weaken subsidiary managers' willingness to experiment, especially in areas requiring agility and tacit knowledge (Birkinshaw & Ridderstråle, 1999). Indeed, prior research suggests that excessive strategic oversight can limit creative flexibility at the subsidiary level (Kostova et al., 2018). In the case of incremental innovation—which tends to be driven by decentralized decision-making and internalized capabilities—top-down control from headquarters can turn such bottom-up innovation into compliance pressure, thereby hindering continuous improvement efforts (Cia-buschi, Forsgren, & Martín Martín, 2011).

In contrast, radical innovations often involve cross-border knowledge integration, resource-intensive projects, and major strategic shifts, and headquarters interventions can greatly benefit from the legitimization and coordination functions they provide (Andersson et al., 2016). This supports the argument that the fit between control mechanisms and types of innovation is critical, and suggests that a one-size-fits-all approach to headquarters control is not optimal (Lunnan, Tomassen, Andersson, Benito, & Narula, 2019).

Table 1: Correlation Matrix

	Mean	S.D	1	2	3	4	5	6	7	8	9	10
Entry mode	0.85	0.36	1									
Ownership	0.62	0.49	-0.11	1								
Size	2278.6	5461.13	0.1	0.17*	1							
Age	18.11	8.48	0.18*	0.15*	0.50**	1						
Level of competition	5.19	0.96	0.19**	-0.08	0.13	0.12	1					
Extent of control	5.25	1.12	0.06	-0.09	0.12	0.14*	0.1	1				
Focus of control	5.42	0.94	0.08	-0.02	0.1	0.08	0.24**	0.74**	1			
Control mechanisms	5.6	0.81	0.03	-0.05	0.02	-0.02	0.22**	0.60**	0.67**	1		
Incremental innovation	5.95	0.61	-0.06	0.07	0.01	-0.02	0.32**	0.05	0.11	0.24*	1	
Radical innovation	5.51	0.74	0.01	0.02	0.04	-0.07	0.35**	0.15*	0.23**	0.26*	0.43**	1
ROI	14.54	9.56	0.05	0.02	0.01	0.05	0.14*	0.04	-0.02	0.11	0	0.07

Notes: N= 200; *p<0.05, **p<0.01.

Table 2: Regression Results and Robustness Check

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Robustness Check	VIF
Entry mode	0.019	-0.012	-0.093	-0.03	0.006	0.006	0.02	1.097
Ownership	0.034	-0.018	0.1	0.061	-0.065	-0.044	0.033	1.102
Size	-0.035	0.081	-0.002	0.063	0.08	0.067	-0.006	1.396
Age	0.043	-.199**	-0.051	-.157*	-146*	-.158*	0.035	1.427
Level of competition	.144*	.638***	.315***	.311***	.526***	.531***	1.439*	1.322
Extent of control		.169*	-0.061	-0.03		.183*	0.027	2.398
Focus of control		-0.066	-0.093	0.089		-0.074	-0.054	2.799
Control mechanisms		0.095	.280**	.164†		0.025	0.077	2.061
Incremental innovation					.122*	.119*	-0.048	1.354
Radical innovation					.240***	.222***	0.023	1.377
Adjusted R ²	-0.001	0.465	0.132	0.146	0.515	0.53	0.016	
F	0.955	22.607***	4.781***	5.263***	31152***	23.421***	4.210*	

Notes: N= 200; †p<0.1, *p<0.05, **p<0.01, ***p<0.001.

5. Conclusions

5.1. Summary of this study

This study analyzes how the control of the headquarters affects the innovation performance and financial performance of the subsidiaries of MNEs operating in China. When the headquarters controls the subsidiaries, there are three dimensions: the extent of control, focus of control, and control mechanisms. This study uses agency theory and RBV as theoretical frameworks to develop a conceptual model and empirically verify it to examine how these influence the two types of innovation of the subsidiaries: incremental innovation and radical innovation. Based on the survey data collected from 200 subsidiaries, the hierarchical regression analysis showed that the control mechanism had a positive effect on both types of innovation, and in particular, the effect was stronger on incremental innovation. On the other hand, the extent and focus of control exhibited no significant relationship with incremental innovation, and their effect on radical innovation was limited. Both types of innovation contributed to improving the financial performance of subsidiaries, but the effect of radical innovation

was stronger. These results suggest that the impact of headquarters control on the innovation and financial performance of subsidiaries of MNEs is not simple, and that the effects vary depending on the type of innovation.

5.2. Theoretical implications

Agency theory holds that a principal, such as headquarters, designs governance structures to align the behavior of its agents with organizational goals and to mitigate opportunism. The results of this study partially support this view. Specifically, formal control mechanisms, such as reporting systems and performance monitoring, had a positive effect on both incremental and radical innovation. This suggests that structured supervision can induce subsidiaries to take actions that are consistent with headquarters' demands. However, the results that the extent of control and focus of control do not significantly affect incremental innovation raise questions about the universal applicability of agency theory. It shows that when innovation comes from localized routines and tacit knowledge, strong supervision or strategic direction from headquarters may not only be ineffective but may even be counterproductive. This insight shows the limits of the applicability of agency theory, especially in the context of cross-border innovation where subsidiaries require localized learning, and enriches the theory. Therefore, the relationship between headquarters and subsidiaries needs to be theorized more flexibly depending on the characteristics of the innovation task and the knowledge asymmetry between headquarters and subsidiaries.

The RBV underlines that the basis of competitive advantage is a firm's unique, valuable, rare, and difficult-to-imitate resources. The results of this study are consistent with this logic, as it confirms that both incremental innovation and radical innovation serve as core internal capabilities that improve financial performance. In particular, radical innovation exhibited a stronger effect, which highlights its role in strategic renewal and long-term value creation.

This study also displays that control mechanisms enable capability development by institutionalizing routines that promote knowledge utilization. In contrast, the strategic control dimension of headquarters had a weak or insignificant effect, which suggests that resource deployment should be context-specific. In other words, subsidiaries need autonomy to utilize their internal knowledge and build dynamic capabilities locally. These results extend the RBV, highlight the importance of subsidiary-level heterogeneity, and suggest that headquarters control should be designed to support the realization of context-specific capabilities. Therefore, the RBV is not only effective in explaining differences in performance, but also serves as a theoretical framework that guides the design of control in global strategies.

This study also extends accounting and performance governance literature by explicitly linking headquarters control dimensions, subsidiary innovation outcomes, and return on investment.

5.3. Practical implications

First, our findings offer essential practical implications for HQ executives who manage overseas subsidiaries. Our study advises that formal control mechanisms, such as regular performance reviews, reporting requirements, and target tracking, can promote both types of innovation (incremental and radical innovation). Therefore, HQs need to invest in well-designed administrative systems that can standardize expectations and enhance accountability, especially for subsidiaries located in complex institutional environments such as China. But when trying to foster radical innovation, headquarters must be careful not to rely too heavily on top-down strategic direction. Instead, it must create an environment that supports experimentation, cross-boundary collaboration, and calculated risk-taking.

Second, this study suggests that subsidiary management needs to demand a control structure that reflects the local operating conditions of the subsidiary. When innovation activities are mainly operational and incremental in nature, it may be advantageous for management to minimize strategic intervention from headquarters and secure greater autonomy. Conversely, when embarking on radical innovation, it is desirable to seek alignment with headquarters to secure resources and provide legitimacy. By understanding how different dimensions of control affect the type of innovation, subsidiaries can negotiate more appropriate control structures. Ultimately, maintaining a balance between control and flexibility is key to optimizing innovation performance and sustaining financial performance across geographically dispersed organizational units.

The findings suggest that headquarters should tailor control structures to the nature of innovation activities rather than applying uniform governance mechanisms across subsidiaries.

5.4. Research limitations

Despite its contributions, this study has several limitations. First, the cross-sectional survey design limits causal inference. Longitudinal data should be utilized to more robustly examine the dynamic interaction between headquarters control and innovation. Second, this study is based on self-reported survey data from subsidiary managers, which may be affected by cognitive bias or social desirability effects. Although we attempted to mitigate CMB through various statistical techniques, future studies should employ multi-source data or objective performance indicators. Third, since this study targeted foreign subsidiaries in China, the generalizability of the research results is limited. Given China's unique institutional environment, it is necessary to verify the external validity of this model through follow-up studies in other emerging markets or developed countries. Finally, this study did not consider moderating variables such as the subsidiary's strategic role, level of autonomy, and environmental uncertainty. These factors may moderate the control effect of the headquarters, and may serve as promising research paths for future studies on governance and innovation of MNEs.

Future research should further examine how institutional environments moderate the relationship between headquarters control and subsidiary innovation.

Data Availability Statements

Data available on request from the authors

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Conflicts of Interest

The authors declare no conflict of interest.

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Appendix A: Variable Measurements

Dependent variable	ROI	What is your firm's return on investment (ROI) in 2023? (Unit: %)
Independent variables	Extent of control (Cronbach's alpha: .890)	1 = very highly disagree; 7 = very highly agree (i.e., measured by 7 point-Likert scale) (adapted from O'Donnell, 2000) (1) MNE headquarters are primarily a strategy planner and imagineer for overseas subsidiaries, and thus the former strongly controls the latter's overall goals. (2) MNE headquarters have worldwide responsibility for production activities, and thus they strongly control subsidiaries' production processes. (3) MNE headquarters have a high level of specialized information on the application of conceptual knowledge for achieving practical goals, and thus the former strongly controls the latter's technology uses. (4) MNE headquarters have worldwide responsibility for marketing activities, and thus they strongly control subsidiaries' commercial ends. (5) MNC headquarters play a central role in doing product research and development activities, and thus they strongly control subsidiaries' product development.
	Focus of control (Cronbach's alpha: .816)	1 = very highly disagree; 7 = very highly agree (i.e., measured by 7 point-Likert scale) (adapted from Puck, Hödl, Filatotchev, Wolff, & Bader et al., 2016) (1) MNE headquarters exercise control over a relatively wider scope of the subsidiaries' activities. (2) MNE headquarters typically wield authority over a broad spectrum of their subsidiaries' operations, spanning various sectors and functions.

Mediating variables	Control mechanisms (Cronbach's alpha: .789)	(3) MNE headquarters pay attention to subsidiary control, which encompasses strategic planning, resource allocation, and operational oversight within the latter. (4) MNE headquarters control over a wide range of activities carried out by their subsidiaries, often extending across different divisions and operations. 1 = very highly disagree; 7 = very highly agree (i.e., measured by 7 point-Likert scale) (adapted from Ghauri, Cave, & Park, 2013)
	Incremental innovation (Cronbach's alpha: .769)	(1) MNE headquarters staff subsidiaries' top management positions to control the latter. (2) MNE headquarters deploy expatriates to control the latter. (3) MNE headquarters actively communicate with subsidiaries to control the latter. (4) MNE headquarters support subsidiaries' policy and planning processes to control the latter. (5) MNE headquarters provide training opportunities to subsidiary employees in order to control the latter. 1 = very highly disagree; 7 = very highly agree (i.e., measured by 7 point-Likert scale) (adapted from Escrig-Tena, Segarra-Ciprés, & García-Juan, 2021)
	Radical innovation (Cronbach's alpha: .788)	We try to achieve innovations that reinforce (1) our prevailing product/service lines, (2) our existing expertise in prevailing products/services, (3) how we currently compete. 1 = very highly disagree; 7 = very highly agree (i.e., measured by 7 point-Likert scale) (adapted from Escrig-Tena et al., 2021)
	Entry mode	We try to achieve innovations that (1) make existing products obsolete, (2) fundamentally change existing products, (3) significantly enhance customers' product experiences, (4) require different ways of learning from customers.
Control variables	Ownership	Greenfield investment = 0; Brownfield investment = 1
	Size	International joint ventures = 0; Wholly owned subsidiaries = 1
	Age	Number of employees
	Level of competition	Year elapsed since the establishment of the venture firm 1: very low; 7: very high