Dissertation

Globalization in Modern Capitalism: Digital Innovation, MNEs, and Market Entry Strategies

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Globalization shapes modern capitalism by fostering the expansion and interconnection of multinational enterprises (MNEs) through knowledge intensity, digitalization, and strategic market entry. My dissertation advances the understanding of how MNEs, particularly from emerging markets, achieve global success. It explores how knowledge management and business model innovation enhance innovation capabilities, leveraging AI algorithms and digital platforms for rapid global market access. Finally, my dissertation demonstrates the power and applicability of machine learning (ML) techniques in IB research.

BIG QUESTION

How do knowledge management, digitalization, and strategic market entry enable multinational enterprises to succeed globally?

INTRODUCTION

Globalization has shaped modern capitalism in the contemporary era by fostering the expansion and interconnection of multinational enterprises (MNEs). Globalization remains a multifaceted process, influenced by factors such as knowledge intensity, digitalization, and foreign market entry strategies. It involves the worldwide exchange of goods and services, knowledge and capital, and ideas and information.

In the contemporary world, modern capitalism is a dynamic system shaped by an expanding knowledge base, innovation trends, globalization, digitalization, and the rise of emerging MNEs. It relies on technological advancements, as firms develop new processes and products to enhance global competitiveness. For instance, artificial intelligence (AI) algorithms and digital technologies, as seen in platforms like TikTok, accelerate information sharing and enable innovative business models by leveraging user data. Additionally, the rapid growth of emerging markets, such as China, integrates with modern capitalism by providing opportunities for foreign direct investment (FDI), market expansion, and knowledge acquisition, as demonstrated by ByteDance's success with TikTok. This shift has transformed the global economic landscape, potentially challenging traditional Western dominance through the rise of firms from transforming economies.

While there has been an increase in internationalization over many decades, research still needs to advance understanding of the phenomenon. With different core resources (Dunning, 2014) and internationalization motivations, current theoretical insights may not fully explain the internationalization of firms, particularly those that are digital in nature. Furthermore, existing research primarily focuses on the internationalization of organizations from developed economies. Although research exists on the internationalization of multinationals from emerging countries, there is still a limited understanding of their internationalization journey, particularly regarding foreign entry modes and the roles of knowledge and digitalization. This dissertation seeks to provide a contribution to a sharper understanding of these phenomena.

This dissertation is anchored in multiple theoretical frameworks that provide complementary perspectives on firm internationalization in four studies (Table 1). Specifically, this dissertation endeavors to elevate the existing comprehension of how knowledge-intensive enterprises can bolster their innovation capabilities through the implementation of knowledge management practices and the exploration of business model innovation. Simultaneously, this dissertation seeks to harness the insights derived from the knowledge of internationalization, specifically focusing

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on the realm of digital products and the foreign entry modes of MNEs.

STUDY 1: KNOWLEDGE MANAGEMENT IN CHINESE MNES

The first study employs bibliometric analysis to map 150 articles published in top business and management journals into six major clusters, offering an overview of the relationships among articles on the topic of knowledge management in Chinese MNEs. This study develops an integrative framework that examines the content, process, and outcomes of Chinese MNEs' knowledge management practices, synthesizing the existing literature. We introduced a three-staged approach to Chinese MNEs' knowledge management practices: home orientation, overseas orientation, and global orientation. In the home orientation phase, Chinese MNEs leverage home-country advantages, such as localized knowledge and institutional familiarity, to build foundational capabilities. The overseas orientation phase involves adapting and augmenting these capabilities in response to foreign institutional environments, fostering knowledge transfer and integration. Finally, the global orientation phase reflects a synthesized, globally integrated knowledge management system that balances home- and host-country institutional demands.

This study found that Chinese MNEs leverage government support and domestic market strength before transitioning into global innovation leaders. However, as Chinese MNEs gain more internationalization experience, they increasingly adopt global collaborative innovation networks as their core method for obtaining innovation capability and advanced knowledge (Jing, Chen, & Wu, 2003), directed and stimulated by the staged shift in Chinese government policies.

Moreover, this study emphasizes collaborative innovation activities at Chinese MNEs' overseas R&D centers, reflecting a shift from viewing overseas markets solely as sources of advanced technologies to actively pursuing a global presence. In the context of this evolving internationalization, Chinese MNEs showcase diverse organizational structures, ranging from ethnocentric centralized models to global collaborative innovation networks. To achieve long-term performance, they must further sustain and develop independent innovation, navigate AI trends to upgrade business models, and accumulate international experience to address challenges in the digital era.

STUDY 2: BUSINESS MODEL INNOVATION OF CHINESE DIGITAL GIANT

In the second study, the success of a Chinese firm, ByteDance, is discussed, which developed one of the most globally downloaded apps – TikTok. In the contemporary world, digital platforms facilitate speedy and cost-effective expansion into foreign markets by making products instantly accessible to international markets and enabling interaction with end customers from diverse overseas markets through instant information exchange (Brouthers, Geisser, & Rothlauf, 2016; Nambisan, Zahra, & Luo, 2019).

This study enhances insight into the home country market's vital role in driving successful digital product innovation. China's vast market served as a testing hub that enabled iterative experimentation to refine the video recommendation algorithm, with users playing a key role in this process. ByteDance launched Douyin in China first to refine the algorithm through extensive user feedback, then applied the optimized version to TikTok. Drawing on this approach, TikTok blends imitation and originality, combining social networking and video-sharing features with AI-driven algorithms, to create innovative business models for global deployment. It also highlights how organizations offer a unique value proposition by creatively integrating elements from existing business models. Furthermore, since China is one of the largest cyber markets, the case analysis stresses the pivotal role of ongoing experimentation within the home country market, emphasizing its ability to shape new avenues for value creation and capture.

STUDY 3: INTERNATIONALIZATION OF DIGITAL PRODUCTS

In the third study, research on the internationalization–performance relationship is advanced by shifting attention to the internationalization of digital products. This study utilizes machine learning (ML) techniques to analyze global apps available from the Google Play platform. It complements research on global competition between platform owners by examining the rivalry among apps within global digital platforms.

Digital firms (i.e., digital MNEs or digital product owners) need to carefully consider their international footprints, as these can affect their global performance. Specifically, assisted by ML, this study reached several key findings, of which three are essential. First, I find a non-linear effect where digital apps achieve high downloads with either low or high country diversification, but not moderate levels. Apps with limited diversification succeed through targeted regionalization, while highly diversified apps leverage incremental global reach after strong home market performance. Second, app designers' localization efforts play a crucial moderating role in the relationship between international diversification and app download performance, exerting a positive influence; the relationship between international diversification and app download performance is stronger for apps with a high degree of localization than for those with a low degree. Third, the newer an app is on the market, the more pronounced the positive effect of international diversification on its download performance.

For apps as digital products, this study suggests that the strongest performance is achieved through either global releases or a focused approach targeting a small number of markets, rather than situations in which products are released in a moderate number of countries. It reconciles previous contradictory insights that argued for either stepwise internationalization (Vahlne & Johanson, 2017) or global

Table 1. Research studies included in this PhD dissertation

Study	Key Topic	Key Methods	Key Question	Key Insights
One	Knowledge management in Chinese MNEs	Systematic literature review; Bibliometric analysis	What are the critical factors influencing knowledge management within Chinese multinational enterprises? Is there a difference in knowledge management practices among Chinese MNEs based on factors?	Under the influence of government initiatives, Chinese MNEs focus on global innovation centers to integrate and create knowledge. Leveraging this global knowledge base, Chinese MNEs have bolstered their global competitiveness and achieved internationalization, marking an evolution in innovativeness that shifts from a reliance on external global knowledge sources to a robust emphasis on self-creation.
Two	Business model innovation of Chinese digital giant	Case study	How do Chinese digital firm achieve success on the global stage?	Digital firms can leverage their home country market for continuous experimentation and harnessing AI algorithms as a key driver to shape innovative global business models.
Three	Internationalization of digital products	Logistic regression; Machine learning: • Algorithms: random forest and XGBoost. • Explainability techniques: one-way PDP and ICE joint plot, one-way ALE plot, two-way PDP, permutation importance plot, feature interaction strength, SHAP summary plot and dependence plot.	How does international diversification influence digital product performance, considering their lower marginal costs and immediate global accessibility?	An increase in international diversification significantly enhances the likelihood of an app achieving high download volumes. The localization efforts of digital firms can further increase the potential for their app products to be downloaded more extensively. Additionally, the positive impact of international diversification on download performance is amplified for newer apps in the market.
Four	Foreign market entry strategies	OLS regression; Machine learning: • Algorithms: Decision tree, KNN, random forest, XGBoost, and LightGBM. • Explainability techniques: SHAP Summary plot and dependence plot.	How is the most explanatory theory in the management field identified, and how can it be applied to the global strategies of multinational enterprises?	Network theory is recognized as a powerful framework in management due to its ability to conceptualize MNEs as networks of subsidiaries embedded in diverse relationships, such as with host country governments. By leveraging this theory, MNEs can strengthen their global presence through participation in foreign investment networks, forming strategic alliances, and co-owning subsidiaries with other MNEs. Furthermore, encouraging subsidiaries to collaborate with local and global firms in host countries, rather than pursuing full ownership and centralized control, enhances the effectiveness of their network-based strategy.

releases (Brouthers et al., 2016) by showing that both can be successful. In this way, this research enriches the understanding of globalization strategies in the digital realm.

STUDY 4: FOREIGN MARKET ENTRY STRATEGIES

As firms seek to penetrate new markets and engage with local consumers, the choice of an appropriate foreign market entry strategy becomes critical. Among the various options, FDI is a prominent approach, typically requiring extensive cooperation, collaboration, and knowledge sharing between parent firms and their local or global subsidiaries. Despite the extensive body of literature on foreign market entry, consensus remains elusive regarding the determinants of equity ownership levels in foreign subsidiaries. So, this fourth study investigates the factors influencing equity ownership decisions in foreign subsidiaries through a comparison of IB theories by applying (interpretable) machine learning.

This study found that network theory is highly valuable for the inquiry, conceptualizing MNEs as networks of subsidiaries embedded in complex, dynamic relationships, including with host country governments. By participating in foreign investment networks, forming strategic alliances, and co-owning subsidiaries with other MNEs, firms can expand their global footprint while mitigating risks such as economic volatility and operational challenges. Encouraging subsidiaries to collaborate with local and international partners, rather than relying solely on full ownership and centralized control, enhances the adaptability and effectiveness of their global strategies.

CONCLUDING INSIGHTS ON INTERNATIONALIZATION IN THE DIGITAL ERA

This dissertation advances understanding of how multinational enterprises achieve internationalization in the digital era. By integrating insights from theories related to knowledge management, business model innovation, and internationalization, it addresses important gaps in international business research and offers actionable implications for theory and practice. Moreover, this dissertation illustrates how adding ML as a complementary analytical toolkit can fruitfully expand IB's apparatus in the realm of quantitative empirical research.

Specifically, by incorporating non-parametric ML into the model construction process, the research can inductively identify novel data complexities, which inform subsequent deductive analyses in the classic parametric regression tradition (Bosma & van Witteloostuijn, 2024). Furthermore, machine learning acts as an exploratory lens that reveals candidate relationships and functional forms that would be difficult or impossible to specify a priori, which are then rigorously tested and interpreted using familiar parametric tools such as fixed-effects panel regressions. This approach offers the potential to uncover the "black box" of global business dynamics, harnessing Big Data to reveal insights unattainable through traditional methods (Kitchin, 2014). Future international business research should consider adopting ML toolkits to explore the evolving global landscape.

Returning to substance, the dissertation underscores the pivotal role of knowledge management in fostering global competitiveness among Chinese MNEs. Operating within a unique institutional context shaped by governmental policies, such as the "Bring in and go out" strategy, Chinese firms adopt phased approaches to building knowledge and innovativeness. This evolution, particularly pronounced in State-owned enterprises, shifts from reliance on foreign knowledge to self-innovation. For instance, ByteDance leverages AI-driven business models, tested domestically, to drive TikTok's global success (Mihalache & Volberda, 2021). These findings challenge traditional internationalization models, such as the Uppsala framework, by demonstrating how digital firms exploit low-cost global distribution via platforms like Google Play to bypass incremental expansion (Shaheer, Li, & Priem, 2020).

This study enriches international business theory by uncovering non-linear performance effects in digital product markets, where superior outcomes may arise from either broad global releases or highly focused market strategies. This finding offers a potential reconciliation of the long-standing debate between the stepwise internationalization process (Vahlne & Johanson, 2017) and born-global approaches (Brouthers et al., 2016). In digital contexts, both extremes of internationalization breadth (i.e., very low and very high levels of market coverage) can dominate intermediate levels. The remarkable success of ByteDance and TikTok further illustrates that even aggressively global platforms must invest heavily in localization (e.g., tailored content algorithms, regulatory compliance, partnerships, and infrastructure) to overcome persistent liabilities of foreignness (Buckley & Ghauri, 2004). Thus, these findings reconcile apparently contradictory theories by showing that rapid global reach and deep local adaptation are complementary rather than competing imperatives in digital internationalization. Finally, by blending innovative business models with localized adaptations, Chinese MNEs can bolster their global competitiveness, providing a foundation for future research in an increasingly interconnected and geopolitically complex world.

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