THE IMPACT OF FOREIGN DIRECTORS, RETURNEE DIRECTORS AND FOREIGN OWNERSHIP ON CORPORATE INNOVATION IN CHINESE LISTED MANUFACTURING COMPANIES

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by

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LIST OF ABBREVIATIONS

AT	Agency Theory
BOD	Board of Directors
CG	Corporate Governance
CSRC	China Securities Regulatory Commission
DEA	Data Envelopment Analysis
EMCs	Emerging Market Companies
EU	European Union
FC	Foreign Chairman
FD	Foreign Directors
FID	Foreign Independent Directors
FIDO	Foreign Individual Ownership
FISO	Foreign Institutional Ownership
FMD	Foreign Managing Directors
FO	Foreign Ownership
GLS	Generalized Least Squares
R&D	Research and Development
RD	Returnee Directors
RDWDB	Returnee Directors with Dual Backgrounds
RDWSB	Returnee Directors with Overseas Study Background
RDWWB	Returnee Directors with Overseas Work Background
SOEs	State Owned Enterprises
ST	Special Treatment
UET	Upper Echelon Theory
U.S.	The United States of America

IMPAK PENGARAH ASING, PENGARAH PULANG DARIPADA LUAR NEGARA, DAN PEMILIKAN ASING TERHADAP INOVASI KORPORAT DALAM SYARIKAT PERKILANGAN TERSENARAI CHINA

ABSTRAK

Globalisasi ekonomi telah mendorong integrasi yang belum pernah berlaku sebelum ini bagi bakat, modal, dan faktor produktif lain di seluruh dunia, lantas memberi peluang baru kepada perusahaan pasaran yang sedang pesat membangun untuk berinovasi. Dengan latar belakang inovasi korporat menjadi strategi penting untuk mencapai prestasi unggul dan mengekalkan kelebihan daya saing, kajian mengenai bagaimana pengarah asing, pengarah pulang daripada luar negara, dan pemilikan asing mempengaruhi inovasi korporat masih terhad. Menggunakan sampel 17980 pemerhatian tahun firma dalam syarikat pembuatan tersenarai China sepanjang 2008–2021, kajian ini menilai hubungan antara pengarah asing, pengarah pulang daripada luar negara, pemilikan asing, dan inovasi korporat dari perspektif tadbir urus korporat. Selain itu, kajian ini meneliti kesan interaksi pemilikan kerajaan terhadap hubungan antara pengarah pulang daripada luar negara dan inovasi korporat. Berbeza dengan reka bentuk penyelidikan sebelum ini, kajian ini mengkategorikan pengarah asing dan pengarah pulang daripada luar negara kepada tiga jenis yang berbeza masing-masing dan pemilikan asing kepada dua jenis. Dapatan kajian menunjukkan bahawa pengarah bebas asing, pengerusi asing, pengarah pulang daripada luar negara dengan latar belakang pengajian di luar negara, pengarah pulang daripada luar negara dengan latar belakang pekerjaan di luar negara, dan pengarah pulang daripada luar negara dengan latar belakang dua hala mempunyai kesan positif dan signifikan terhadap inovasi korporat. Sebaliknya, kehadiran pengarah urusan asing, pemilikan

institusi asing, dan pemilikan individu asing tidak mempunyai kesan yang ketara. Tambahan pula, pemilikan kerajaan hanya berinteraksi dengan hubungan antara pengarah pulang daripada luar negara dengan latar belakang pekerjaan di luar negara dan inovasi korporat. Kesimpulan ini sebahagiannya mengesahkan pandangan teori agensi dan teori peringkat atasan dalam proses inovasi. Keputusan kekal kukuh merentasi siri ujian, termasuk kaedah anggaran alternatif, pembolehubah bersandar alternatif, sub-sampel yang tidak termasuk tempoh pandemik COVID-19, anggaran dua langkah Heckman, dan penggunaan model DEA dua peringkat untuk mengawal kebolehan pengurusan. Secara keseluruhan, kajian ini menyumbang kepada pemahaman yang lebih baik tentang kepentingan pengarah asing, pengarah pulang daripada luar negara, dan pemilikan asing dalam inovasi korporat. Dapatan ini sangat penting untuk syarikat yang ingin meningkatkan keupayaan inovasi mereka dan untuk pembuat dasar yang berusaha untuk memupuk daya saing inovasi dan pertumbuhan ekonomi.

THE IMPACT OF FOREIGN DIRECTORS, RETURNEE DIRECTORS AND FOREIGN OWNERSHIP ON CORPORATE INNOVATION IN CHINESE LISTED MANUFACTURING COMPANIES

ABSTRACT

Economic globalization has driven the unprecedented worldwide integration of talent, capital, and other productive factors, offering emerging market enterprises new opportunities for innovation. Against the backdrop of corporate innovation becoming a crucial strategy for achieving superior performance and maintaining competitive advantage, research on how foreign directors, returnee directors, and foreign ownership affect corporate innovation remains limited. Using a sample of 17980 firm-year observations in the Chinese listed manufacturing companies during 2008–2021, this study evaluates the relationships between foreign directors, returning directors, foreign ownership, and corporate innovation from a corporate governance perspective. Additionally, this study examines the interaction effect of state ownership on the relationship between returnee directors and corporate innovation. Unlike previous research designs, this study categorizes foreign directors and returnee directors into three distinct types each and foreign ownership into two types. The findings indicate that foreign independent directors, foreign chairmen, returnee directors with overseas study background, returnee directors with overseas work background, and returnee directors with dual backgrounds positively and significantly affect corporate innovation. In contrast, the presence of foreign managing directors, foreign institutional ownership, and foreign individual ownership does not have a noticeable effect. Furthermore, state ownership only interacts with the relationship between returnee directors with overseas work backgrounds and corporate innovation.

These conclusions partially confirm the viewpoints of agency theory and upper echelons theory in the innovation process. The results remain robust across a series of tests, including alternative estimation methods, alternative dependent variable, subsamples excluding the COVID-19 pandemic period, Heckman two-step estimation, and applying a two-stage DEA model to control for managerial ability. Overall, this study contributes to a better understanding of the importance of foreign directors, returning directors, and foreign ownership in corporate innovation. These findings are valuable for firms seeking to enhance their innovation capabilities and for policymakers striving to foster innovation competitiveness and economic growth.

CHAPTER 1

INTRODUCTION

1.1 Research Background

Over the years, the unique phenomena of “Made in China,” “Smart Manufacturing in China,” and the characterization of China as the “World’s Factory” have consistently captured the attention of economists and policymakers, benefiting from the substantial advantages of the demographic dividend (Fang & Wen, 2012; Wang et al., 2021). What has perplexed them is that, since China’s accession to the World Trade Organization on December 11, 2001, and its integration into the process of economic globalization in just nine short years, the output of China’s manufacturing sector has consistently ranked first globally since 2010. The low cost of labor and the expansive domestic market have attracted global capital to invest in manufacturing facilities in China, thereby establishing its indispensable position in the global manufacturing landscape (Ceglowski & Golub, 2012; Klafke et al., 2018).

In reality, the process of economic globalization is akin to a double-edged sword. While the wave of globalization has attracted a significant influx of international talent and investment capital to China, it has also subjected the country’s manufacturing industry to unprecedented competitive pressures, leading to the emergence of an innovation crisis.

1.1.1 Innovation Crisis in Chinese Manufacturing

As the world’s largest manufacturing country, “Made in China” has consistently played a pivotal role in the global economy. On the one hand, China’s manufacturing sector, comprising 31 major categories, 179 subcategories, and 609 sub-subcategories, has deeply integrated into the global supply chain (Ministry of Industry and Information Technology of China, 2023). Over the past decade, China’s production has accounted for over 40% of more than 500 major industrial products globally, establishing itself as the globally acknowledged most comprehensive industrial system (Briken et al., 2017; Dychtwald, 2021; Frynas et al., 2018; Gao et al., 2022; Grummes, 2019; Liu et al., 2023; Su & Liu, 2021; Wei et al., 2017; Yang et al., 2020). On the other hand, the large-scale manufacturing sector is a major driver of China's economic growth. As shown in Figure 1.1, the contribution of manufacturing value added to China's GDP has remained between 25% and 35% from 2008 to 2021, underscoring its critical role in the Chinese economy.

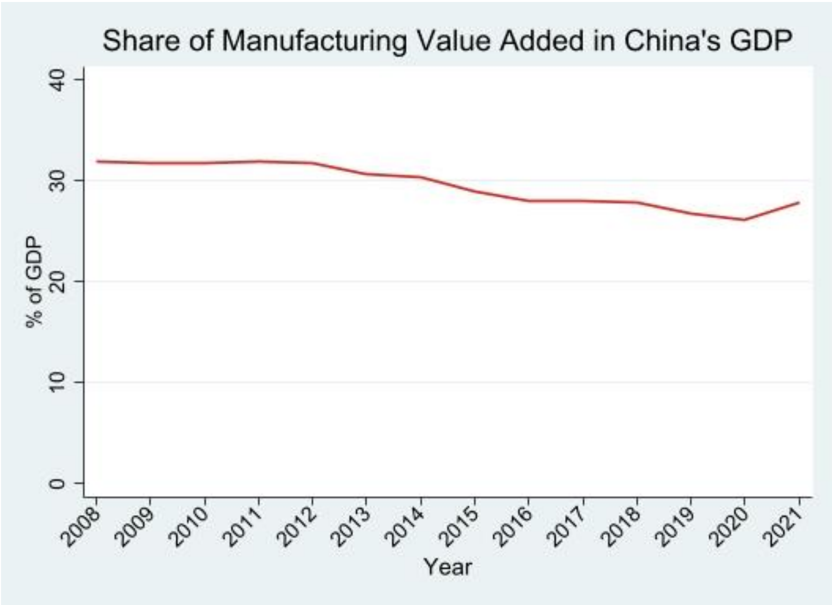

Figure 1.1 Share of Manufacturing Value Added in China's GDP

Source: (WorldBank, 2022)

However, despite its vast production scale, China's manufacturing sector has consistently occupied the lower end of the value chain, relying heavily on a substantial workforce with low labor costs (Liu et al., 2023). Unfortunately, the rapid aging of the Chinese population has intensified the competitiveness crisis within the manufacturing industry (Zheng et al., 2023). Rising labor costs have also rendered the traditional low-cost manufacturing model increasingly unsustainable (Zhou et al., 2021). Indeed, the combined impact of these adverse factors is also reflected in Figure 1.1. From 2008 to 2021, the share of manufacturing value added in GDP has gradually declined, underscoring the urgent need for China's manufacturing industry to accelerate its transformation.

Corporate innovation is a key driver of technological advancement, and it represents a crucial aspect of addressing the crisis in China's manufacturing sector (Javaid et al., 2021). By introducing new technologies, processes, and materials, enterprises can enhance production efficiency, reduce energy consumption, and develop more innovative and advanced products, thereby propelling the overall development of the manufacturing sector (Björkdahl, 2020; Canh et al., 2019). Moreover, corporate innovation enables the adoption of advanced production technologies and automation systems, leading to increased production efficiency. By reducing excessive reliance on labor, enterprises can produce goods more efficiently, lower production costs, and maintain competitiveness in the manufacturing industry amid rising labor costs (Lin et al., 2021; Liu et al., 2023). In other words, the challenges faced by China's manufacturing industry amount to an innovation crisis. Therefore, researching how to address the innovation crisis in China's manufacturing sector has become a crucial topic in current economic studies.

1.1.2 Boardroom Internationalisation of Chinese Manufacturing

In the context of economic globalization and the expanding operations of Chinese manufacturing companies into various countries and regions, it has become imperative for corporate boards to possess the knowledge and adaptability required for diverse business environments and global strategic initiatives (Adams et al., 2019; Choi et al., 2012; Dahlquist et al., 2003; Ghosh et al., 2021; Oh et al., 2021). Consequently, the emergence of boardroom internationalisation, comprising directors with foreigners and returnees, has become a recurring phenomenon in the Chinese manufacturing sector.

Despite the restrictions placed on foreign employment in various nations, their nationality constitutes a distinctive attribute in the boardroom (Zaid et al., 2020; Fernández-Temprano & Tejerina-Gaite, 2020; Jouber, 2021). On the one hand, the absence of conflicting interests affords foreign directors a heightened degree of independence compared to their national directors (Tao et al., 2022). On the other hand, their capacity to establish themselves in foreign lands, along with their backgrounds and expertise, including industry experience, financial acumen, and governance proficiency, have been demonstrated to provide valuable perspectives that can inform effective decision-making processes (Cao et al., 2019; Mardini & Elleuch Lahyani, 2021). It is important to acknowledge, as evidenced by previous scholarly studies, that the advantages inherent to foreign directors can potentially play a decisive role in guiding the direction of the firm's innovation efforts (Masulis et al., 2012; Tao et al., 2022; Xiang & Yi, 2022).

In fact, China has become an increasingly appealing working destination for foreign directors (Agyemang et al., 2020; Du et al., 2017). Huawei, a leading Chinese multinational manufacturing company, made a significant move in this strategy in 2011 when it established the board of its first overseas subsidiary, which notably included three foreigners: former Australian Foreign Minister Donaldson, former Victorian Premier Brumby, and retired Australian Rear Admiral Rod, who also serves as chairman of Huawei's Australian subsidiary. Overall, the trend of increasing numbers of foreign directors on the boards of Chinese listed manufacturing companies has persisted for over a decade, as demonstrated by Figure 1.2, with the number in 2021 nearly 4.6 times that of 2008, it is believed that internationally diverse board of competent and committed directors will facilitate better global connectivity and enhance corporate governance (Ahsan et al., 2021; Naciti, 2019; Veselovsky et al., 2018).

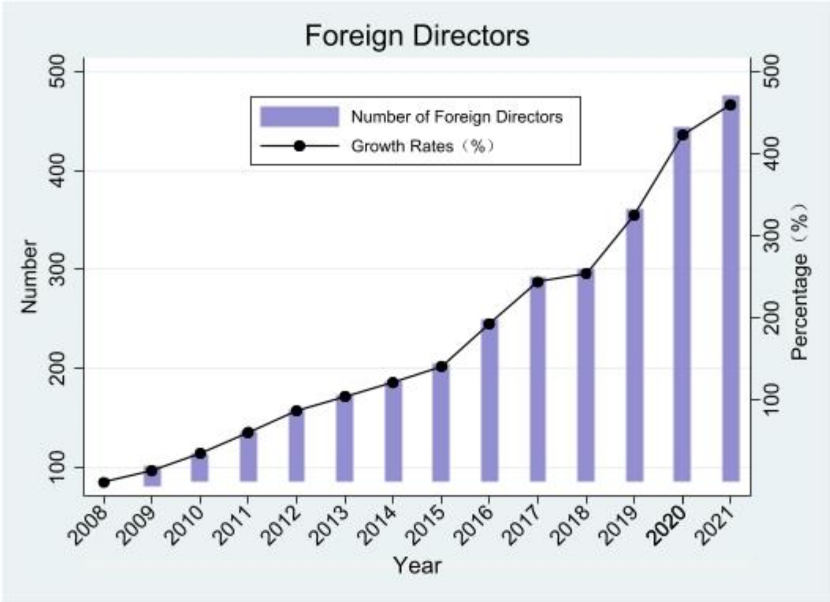

Figure 1.2 Number and Growth Rate of Foreign Directors of Chinese Listed Manufacturing Companies

Source: CSMAR Database

In addition, boardroom internationalisation also encompasses the phenomenon of returnee directors, referring to Chinese individuals who have pursued education or employment overseas and subsequently returned to China to serve as directors. Since the initiation of the “Thousand Talents Program” by the Chinese government in 2008, there has been a growing prevalence of the phenomenon where returnees from overseas enter the boards of Chinese listed manufacturing companies. Given that this program is government-led, this trend is particularly pronounced in state-owned enterprises. This program places a significant emphasis on the acquisition of skilled professionals and business management personnel with overseas backgrounds, the previously prevalent phenomenon of “brain drain” among returnees has undergone a notable transformation and evolved into what is now referred to as “brain circulation” (entry and exit of highly qualified talents) or “brain gain” (talents who have left a country return to continue working in their country of origin), thereby bringing the most important intellectual support to innovative activities (Beine et al., 2008; Dai et al., 2021; Giannetti et al., 2015; Yuan & Wen, 2018).

Indeed, over a period of fourteen years spanning from 2008 to 2021, there has been a noteworthy and significant increase in the number of returnee directors within Chinese listed manufacturing companies (see Figure 1.3). Specifically, the number of such directors reached 1,770 in 2021, 7.23 times the figure in 2008. The return of individuals who have received education or worked overseas to mainland China brings with them a unique set of experiences and perspectives, owing to their overseas exposure, which not only enhances the diversity of ideas on the board but also increases the likelihood of knowledge and skill transfer (Chen et al., 2021; Liu et al., 2010; Cho, 2014; Zhang et al., 2018).

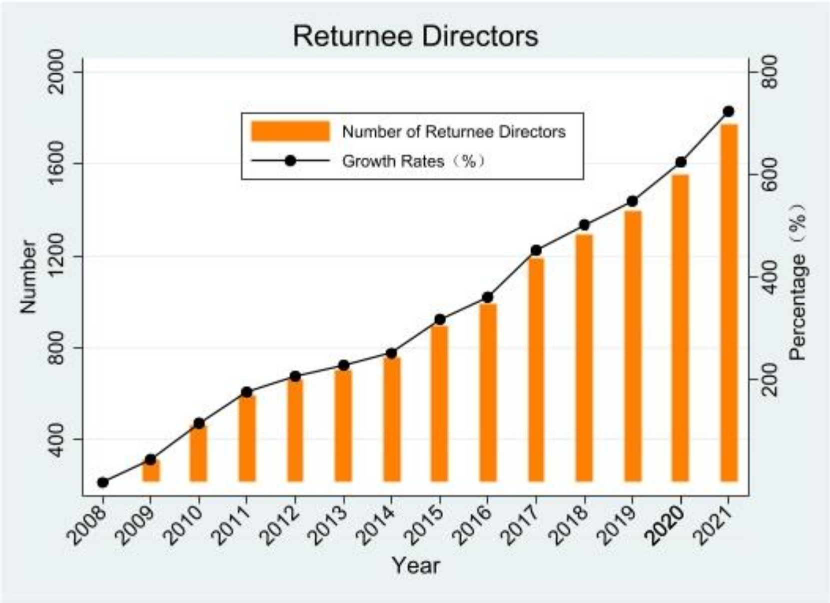

Figure 1.3 Number and Growth Rate of Returnee Directors of Chinese Listed Manufacturing Companies

Source: CSMAR Database

As early as 1984, Hambrick and Mason observed that strategies at the firm level are strongly correlated with the views, backgrounds, and experiences of top executives (Carpenter et al., 2004; Hambrick, 2007; Hambrick & Mason, 1984), and the aforementioned perspectives also gradually gained prove among the board members, thereby expanding the predictive scopes of the upper echelon theory (Abatecola & Cristofaro, 2020; Hao et al., 2022; Jensen & Zajac, 2004; Kanadlı et al., 2018). In the context of economic globalization, returnee directors may play a critical role in driving corporate innovation, although there is limited empirical evidence to support a direct link between returnee directors and firm-level innovation, several studies have explored the potential impact of foreign backgrounds on corporate performance and governance (Fei, 2022; Jiang et al., 2021). The overall conclusion of those literature is that board background diversity has a positive effect on a firm's reputation and performance, reinforcing the value of diversity on corporate boards (Hsu et al., 2019; Ruigrok et al., 2007).

From a perspective of organizational learning, human resource experience, and interaction represents a significant source of corporate knowledge (Antunes & Pinheiro, 2020; Argote et al., 2021; Doz, 2020; Karem et al., 2019; Levitt & March, 1988; Mubarik et al., 2022; Zhao et al., 2020). Previous literature has emphasized the importance of board members' background who can transfer their external experiences and knowledge of business practices and control systems to their companies (Khudhair et al., 2019; Liu & Meyer, 2020; Lu & Herremans, 2019; Schotter & Beamish, 2011). Among these groups, returnee directors occupy a special position, and their background of overseas study and work experience enables them to bring a nuanced understanding of international corporate norms and logic to the boardroom (Ding et al., 2022; McCormick & Wahba, 2001; Tzeng, 2018). The unique background and knowledge of returnee directors may challenge and replace current practices, and their role as professional monitors and advisors can create an open body of expertise, which is vital for promoting corporate innovation (Baron & Harima, 2019; Chen et al., 2021; McCormick & Wahba, 2001; Zhang et al., 2018).

1.1.3 Foreign Investors of Chinese Manufacturing

Economic globalization makes the increased interconnectedness of economies across the world, resulting in the growth of international trade, investment, and the movement of capital across borders, this trend has had a significant impact on foreign ownership (Asmussen et al., 2020; Babic, 2021; Chaisse & Dimitropoulos, 2023; Free & Hecimovic, 2021; Nguyen et al., 2020; Lacal-Arántegui, 2019; Linsi, 2022; Milsom et al., 2022; Naqvi, 2021). For China, since the transformation from a centrally planned economy to one of the most dynamic market economies globally, starting in 1992, there has been a substantial influx of foreign direct investment (Bu et al., 2019; Ding et al., 2022). This shift has made “Made in China,” known for its low-cost labor, a primary destination for global capital (Shahriar et al., 2020). The presence of foreign investors in China’s manufacturing sector has brought several potential benefits, including the infusion of advanced technologies, managerial expertise, and access to international markets (Bu et al., 2019; Gulley et al., 2019; Kwan, 2020; Li et al., 2020; Liu et al., 2020; Ouyang et al., 2020; Qiu et al., 2021).

Despite the rapid integration of the Chinese economy into economic globalisation, particularly in the realm of trade and foreign direct investment (Shahriar et al., 2020; Wang & Shao, 2022; Wang et al., 2020), the Chinese stock market remained significantly isolated until 2002 (Bing & Ma, 2021; Guo et al., 2022; He et al., 2019; Hua et al., 2020; Li et al., 2022; Meng et al., 2023; Sha et al., 2022; Wu & Ohk, 2023). However, in November 2002, China opened its domestic stock market to foreign investors, indicating its resolve to integrate its financial system into the global market. Through the Qualified Foreign Institutional Investor (QFII), selected foreign institutional investors can convert foreign currency into RMB to invest in the domestic stock market (Adcock et al., 2023; Dong et al., 2023; Meng et al., 2023; Wu & Ohk, 2023). Presently, China has attracted a significant influx of foreign investors into the Chinese stock market. Several international investment banks, including UBS Group AG, Morgan Stanley, Nomura Holdings, Goldman Sachs, Citibank, ABN AMRO Bank, and Deutsche Bank, have invested in Chinese stock market via the QFII scheme (Ali et al., 2022; Fang & Olteanu-Veerman, 2020; Li & Wang, 2022; Meng et al., 2023; Tsang et al., 2022). It is noteworthy that the involvement of skilled and judicious foreign investors can potentially enhance the efficiency of capital allocation in China through equity transactions, as well as help promote corporate governance (Ali et al., 2022; DeFond et al., 2019; Dong et al., 2023; Gulzar et al., 2019; Jiang & Kim, 2020; Menget al., 2023; Wu & Ohk, 2023).

On the other hand, the imposition of stringent limitations measures upon foreign investors is a noteworthy phenomenon in China. The China Securities Regulatory Commission (CSRC) has implemented rigorous investment quotas upon foreign institutional investors (Adcock et al., 2023; Ali et al., 2022; Dong et al., 2023; Li et al., 2021; Meng et al., 2023; Wu & Ohk, 2023). Generally, foreign institutional investors must satisfy high minimum asset thresholds to be eligible for membership in the foreign institutional investor club. To be precise, fund management institutions are required to have managed at least US$10 billion in assets during the previous financial year (Ali et al., 2022; Li et al., 2021; Meng et al., 2023; Tsang et al., 2022). Moreover, fund management firms must have operational experience of no less than five years, whereas insurance companies must have a minimum of 30 years of experience and a paid-up capital of at least US$1 billion. As a result, the foreign institutional investors that have invested in China thus far have been large, internationally acclaimed funds and investment banks (Adcock et al., 2023; Ali et al., 2022; Dong et al., 2023; Gulzar et al., 2019; Li et al., 2021; Meng et al., 2023; Tsang et al., 2022). This unique institutional design, characterized by limitations on foreign capital coupled with emerging market features, provides a distinct milieu for this investigation.

In general, the phenomenon of economic globalization is a potent force of transformation on a global scale, inducing a surge in foreign directors, returnee directors, and foreign ownership. In this context, Chinese manufacturing companies have emerged as one of the dominant contenders in the international arena, indicating the label "Made in China" underscores the increasing integration into the global economy (Briken et al., 2017; Grummes, 2019; Wei et al., 2017). The success of these companies can be attributed to a range of factors. However, the role of foreign directors, returnee directors, and foreign ownership in propelling corporate innovation as a driving force in the global landscape cannot be understated. As economic globalization endures, it will be an interesting corporate governance phenomenon to see how Chinese manufacturing companies continue to navigate these challenges and capitalize on the opportunities presented by this rapidly changing landscape.

1.2 Problem Statement

Do foreign directors, returnee directors, and foreign ownership impact corporate innovation? Additionally, is there an interaction effect of state ownership on the relationship between returnee directors and corporate innovation? Currently, the relationship between these foreign factors and corporate innovation has not received sufficient discussion in the field of corporate governance. These governance roles can be important determinants of corporate innovation for several reasons. First, it is widely recognized that foreign directors often operate in distinct cultural and institutional contexts, and their transnational exposure engenders diverse values and perceptions (Asensio-López et al., 2019; Daily et al., 2000; Eulerich et al., 2014). Considering this perspective, foreign directors who possess international experience may exert a significant influence on corporate innovation (Godart et al., 2015; Xiang & Yi, 2022). Second, based on the extant literature, the demographic characteristics of upper-level decision-makers can shape the nature of strategic changes pursued by companies (Clark & Soulsby, 2007; Soulsby & Clark, 2007; Triana et al., 2019; Yang & Clarke, 2005). Returnee directors, serving as cross-boundary actors with overseas experience gained from their study or work backgrounds, possess the knowledge and legitimacy needed to propel strategic change within the company (Chen et al., 2021; Tang et al., 2021). As a result, returnee directors may constitute a crucial force driving corporate innovation. Third, a noteworthy characteristic pertains to the superior regulatory capacity of foreign investors to domestic investors (Asmussen et al., 2020; Bajaher et al., 2020; Long et al., 2023; Meng et al., 2023). This can be attributed, in part, to the "stress-resistant" disposition of foreign investors towards corporate managers, as noted by Kochhar & David (1996), which enables them to serve as more impartial watchdogs (Ali et al., 2022; Bena et al., 2017; Douma et al., 2006; Khanna & Palepu, 1999).

However, there exists a notable lack of consensus regarding the influence of foreign directors, returnee directors, and foreign ownership on corporate innovation, with findings exhibiting significant variation and even contradiction. Specifically, there is mixed evidence regarding the relationship between foreign directors and corporate innovation. For instance, Makkonen et al. (2018) conducted a comprehensive analysis of a large sample of European Union firms and established a positive relationship between foreign directors and corporate innovation, a conclusion that is further corroborated by the research of Rossi & Cebula (2015). Conversely, the study of Khan et al. (2021) indicates that the relationship between foreign directors and corporate innovation is negative in the distinct context of China, thereby casting doubt on the generalizability of this relationship. Furthermore, former evidence on the influence of returnee directors on corporate innovation is scarce, with the most relevant investigation conducted by Cho & Lee (2014), who found that returnee directors promote corporate investment in research and development (R&D) based on a sample of Korean firms. As for the impact of foreign ownership on corporate innovation, the evidence is mixed, with Shin & Park (2020), Luong et al. (2017) and Bena et al. (2017) confirming the facilitative effect of foreign institutional ownership on corporate innovation, and Joe et al. (2019) highlighting the positive role of foreign ownership in enhancing corporate innovation performance. Conversely, Adu-Danso & Abbey (2022) conclude that foreign ownership does not affect corporate innovation based on a sample of 1,157 manufacturing firms in a special institutional setting in Africa, a conclusion that is supported by Amponsah Odei & Stejskal (2020) research on the Czech Republic during the period spanning from 2012 to 2014.

In fact, the mixed evidence regarding the relationship between foreign directors and corporate innovation are based on the assumption that foreign directors are treated as a homogeneous group, with the evidence failing to clearly delineate the positions held by foreign directors. The classification of directors frequently determines distinct degrees of independence and exerts a consequential impact on the effectiveness of governance mechanisms (Gupta & Fields, 2009). To achieve a comprehensive comprehension of this matter, this study has undertaken a further categorization of foreign directors into three distinct types based on the distinguishing features of board positions, which have been independently scrutinized for their correlation with corporate innovation. Specifically, this study categorizes foreign directors (FD) into three distinct types: (i) foreign independent directors (FID); (ii) foreign chairman (FC); (iii) foreign managing directors (FMD).

The role of foreign directors varies based on their different roles, independence, and structural power within their respective firms (DeBoskey et al., 2019; Li, 2020; Lien, 2022; Pettigrew & McNulty, 2019). For instance, while previous studies have commonly classified foreign chairmen as foreign directors, their roles and obligations vary from those of foreign independent directors, as chairmen typically wield more significant influence and necessitate strategic collaboration with foreign managing directors, in addition to considering stakeholder connections that are closely tied to the company, which is not necessarily the case for other categories of foreign directors (Kolev et al., 2019; Merendino & Melville, 2019; Naciti, 2019; Rajeevan & Ajward, 2020). An intriguing observation is that the foreign managing director, who serves as the company's CEO, bears responsibility for executing operational and strategic functions, which the role in question may encounter a formidable obstacle in securing substantial backing for corporate innovation initiatives, and given the interdependence between corporate innovation and proclivities towards risk-taking, this could plausibly engender detrimental, short-term ramifications for both his professional prestige and remuneration interests (Bolton et al., 2015; Chintrakarn et al., 2015; Coles et al., 2006; Craig et al., 2014; García-Granero et al., 2015; Knight et al., 2003; Pathan et al., 2022; Rose-Ackerman, 1980; Sanders & Hambrick, 2007). The classification of the aforementioned foreign directors currently exhibits noticeable gaps. Henceforth, this study's first research interest pertains to the inquiry of whether diverse categories of foreign directors engender discrepant outcomes regarding corporate innovation.

In contrast, the overseas background of the board is not exclusively contingent upon foreign directors, as those returning to their home country after having gained overseas experience also form a constituent of individuals with an overseas background (Dai et al., 2021; Xiang & Yi, 2022). As the assimilation of exogenous knowledge at both domestic and international levels constitutes a pivotal driver of corporate innovation within economies undergoing transition (Rodríguez et al., 2022), the acquisition of knowledge and skills through learning and work experiences further enhances the ability of individuals to drive innovation within an organization (Belderbos et al., 2022; Li & Huang, 2019; Li & Lo, 2017; Tang et al., 2021; Ting et al., 2021; Wu & Park, 2019).

On the one hand, the upper echelon traits of top executives and directors exert a significant influence on corporate strategic decision-making (Abatecola & Cristofaro, 2020). The experiences and backgrounds of these organizational members position them at the periphery of specific institutional environments, making them less likely to be constrained by current institutional pressures and norms (Clark & Soulsby, 2007; Wen & Song, 2017; Zhang et al., 2022). On the other hand, the diversity of overseas backgrounds within the board contributes to the formation of a broad spectrum of management traits, crucial for fostering corporate innovation (Dai et al., 2021; Ding et al., 2022; Tang et al., 2021; Wu & Park, 2019; Zhang et al., 2022).

In short, variations in the backgrounds of upper echelons may form distinct management characteristics, which can potentially yield different effects on corporate innovation (Gao et al., 2021; Mohammadi et al., 2017; Nguyen et al., 2023; Olivari, 2016; Ozgen et al., 2013). The acquisition of study and work experience overseas is a unique background and attribute of returnee directors, and this investigation, while identifying patents as a valid measure of corporate innovation, it also provides a clear delineation of background sources for the characteristics of returnee directors, namely: (i) returnee directors with overseas study background; (ii) returnee directors with overseas work background; (iii) returnee directors with dual backgrounds. This distinction elucidates which backgrounds of returnee directors are most beneficial for corporate innovation and pioneers the exploration of their roles in this field. This constitutes the second research interest of this study.

Similarly, previous literature on the impact of foreign ownership on corporate innovation has yielded divergent findings. To the best of our knowledge, the majority of preceding investigations in the realm of corporate innovation have not undertaken a thorough examination of the interconnection between varieties of foreign ownership, namely, foreign institutional ownership and foreign individual ownership, and corporate innovation. Notably, existing studies have primarily focused on foreign institutional ownership, while overlooking the shares held by foreign individual investors. Among studies examining foreign individual ownership, Chen et al. (2013) found that it decreased the liquidity of shares in Chinese listed companies, thereby prompting this study to investigate the impact of foreign individual ownership on corporate innovation.

Moreover, extant evidence affirms that foreign investors are perceived as active agents in external monitoring, particularly in scenarios where there exists a risk of expropriation due to managerial opportunism (Ali et al., 2022; Li et al., 2021; Meng et al., 2023; Tsang et al., 2022), foreign investors have demonstrated a stronger inclination toward safeguarding the interests of minority shareholders (Almagtome et al., 2020; Asmussen et al., 2020). Nevertheless, the participation of foreign investors in equity transactions in China is restricted (Adcock et al., 2023; Ali et al., 2022; Dong et al., 2023; Li et al., 2021; Meng et al., 2023; Wu & Ohk, 2023). This distinctive institutional structure, which features limitations on the discretionary movement of foreign institutional investors and foreign individual investors, creates a unique environment for this research inquiry, particularly in emerging markets that frequently encounter dual agency predicaments (Adu-Danso & Abbey, 2022; Babic, 2021; Bena et al., 2017; Chen et al., 2013; Henning & Yakob, 2022; Luong et al., 2017). Hence, it is imperative to discern such associations concerning various foreign ownership categories. This study seeks to address the relatively unexplored impact of foreign ownership on corporate innovation, this forms the third research interest of this study.

In addition, the potential interaction effect of state ownership on the relationship between returnee directors and corporate innovation has not received sufficient attention in the field of corporate governance. Chinese state-owned enterprises (SOEs) exhibit unique characteristics when compared to those of developed countries. First, stringent restrictions are imposed on foreigners and foreign capital within SOEs (Lin, 2017; Ma, 2020). Therefore, this study is limited to exploring the interaction effect of state ownership on the relationship between returnee directors and corporate innovation. Second, their primary objective is not to enhance corporate performance but to pursue political objectives, such as low output prices, job creation, and non-profit maximization, this characteristics on non-corporate goals has been noted by Mascarenhas (1989), Song et al. (2015) and Li et al. (2015). Third, the appointment of SOEs executives and directors is usually carried out by the government, and these executives and directors also hold government positions that prioritize their political careers (Beck & Brodsgaard, 2022; Leutert, 2018, 2020; Wang, 2014; Yu et al., 2022). At the same time, the Chinese government places innovation at the forefront of national development and progress state policy, which incentivizes SOEs managers to invest in corporate innovation to improve their political performance (Leutert, 2020). Fourth, SOEs manager performance is evaluated by the government instead of corporate shareholders, reducing agency problems between managers and shareholders and mitigating the risk of lower personal rewards from high-risk activities such as corporate innovation (Fottler, 1981; Jiang & Kim, 2020; Zheng et al., 2020).

An unresolved issue that this study seeks to address is the extent to which state ownership affects the relationship between returnee directors and corporate innovation, and ultimately the innovative performance of companies. Therefore, this study investigates the interaction effect of state ownership on the relationship between returnee directors and corporate innovation. Corporate governance mechanisms have been shown to play a critical role in addressing agency problems (Javeed et al., 2021; Porta et al., 1998; Shleifer & Vishny, 1986), and it is, therefore, imperative to determine whether state ownership can amplify or weaken the link between returnee directors and corporate innovation. The lack of understanding on this issue serves as the fourth interest of investigation in this study.

This study hopes to provide a better insight into the issues. The next section will outline all the research questions and research objectives identified to answer the research interests mentioned in this section.

1.3 Research Questions

Based on the problem statement, The focus of this study is on the role of corporate governance, consisting of foreign directors, returnee directors, foreign ownership, and state ownership. The current study endeavors to examine the relationship between the aforementioned corporate governance variables within

Chinese A-share listed manufacturing companies and their impact on corporate innovation. It aims to address the following questions:

(1) Do foreign directors affect corporate innovation in Chinese A-share listed manufacturing companies?

(2) Do returnee directors affect corporate innovation in Chinese A-share listed manufacturing companies?

(3) Does foreign ownership affect corporate innovation in Chinese A-share listed manufacturing companies?

(4) Does state ownership have an interaction effect on the relationship between returnee directors and corporate innovation in Chinese A-share listed manufacturing companies?

1.4 Research Objectives

In order to answer the research questions, the following objectives were set for the current study:

(1) To investigate the relationship between foreign directors (foreign independent directors, foreign chairman, and foreign managing directors) and corporate innovation in Chinese A-share listed manufacturing companies.

(2) To examine the relationship between returnee directors (returnee directors with overseas study background, returnee directors with overseas work background, and returnee directors with dual backgrounds) and corporate innovation in Chinese A-share listed manufacturing companies.

(3) To identify the relationship between foreign ownership (foreign institutional ownership and foreign individual ownership) and corporate innovation in Chinese A-share listed manufacturing companies.

(4) To explore whether state ownership have an interaction effect on the relationship between returnee directors (returnee directors with overseas study background, returnee directors with overseas work background, and returnee directors with dual backgrounds) and corporate innovation in Chinese A-share listed manufacturing companies.

1.5 Scope of the Study

The scope of this study includes foreign directors, returnee directors, and foreign ownership in Chinese manufacturing companies listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange, covering the period from 2008 to 2021. The delineation of this scope is justified for the following reasons.

First, as the world's largest producer in terms of manufacturing output, China plays a pivotal role in the global supply chain. Therefore, understanding the innovation dynamics of the Chinese listed manufacturing sector is crucial for gaining insights into global innovation trends. In fact, this significant industry often stands as the preferred investment target for foreign investors, attracting a considerable number of foreign directors and returnee directors. Their crucial roles in innovative development contribute both financial support and intellectual capital to the growth of the Chinese economy.

Second, as an emerging economy, China's corporate sector remains a major driver of economic growth. Particularly after the global financial crisis of 2007, the Chinese government has increasingly emphasized the importance of the real economy, primarily represented by the manufacturing sector. It has made concerted efforts to diversify and internationalize it. Under initiatives like "Made in China 2025" and "Industry 4.0", the manufacturing sector has been at the forefront of R&D and innovation. The development of these companies necessitates robust corporate boards and foreign investment to achieve the goal of innovation-driven internationalization. In this context, examining the relationships between foreign directors, returnee directors, foreign ownership, and corporate innovation in Chinese listed manufacturing companies becomes a highly relevant and necessary issue.

Third, as of the end of 2023, there are three securities exchanges in mainland China: the Shanghai Stock Exchange, established on November 26, 1990; the Shenzhen Stock Exchange, established on December 1, 1990; and the Beijing Stock Exchange, established on November 15, 2021. Due to the relatively recent establishment of the Beijing Stock Exchange and the limited availability of data, this study focuses solely on the remaining two exchanges, namely the Shenzhen Stock Exchange and the Shanghai Stock Exchange. These exchanges have long required listed companies to disclose governance information, including board composition and ownership structure, enabling the accurate extraction of board and ownership data for this research.

1.6 Motivation of the Study

Against the backdrop of economic globalization over the past few decades, the mobility of international talent has garnered widespread attention, particularly in the fields of international human resource management and knowledge management. However, research on the influence of internationalized talent in the context of corporate finance has been limited, leaving a gap in understanding.

In the corporate finance area, only a handful of scholars have focused on the impact of foreign directors on corporate innovation, yielding mixed evidence. Existing perspectives have struggled to adequately explain these discrepancies. Furthermore, there has been scarce differentiation between the various types of foreign directors, leaving room for further exploration.

Moreover, prior several studies have predominantly focused on foreign directors, leaving a broader gap in the research on corporate innovation. After all, individuals from China who have acquired international experience through overseas study or work have also accumulated international exposure. The impact of this specific group, often referred to as returnee directors, on corporate innovation remains underexplored, with limited differentiation from foreign directors. Therefore, this study seeks to examine the value that current foreign directors and returnee directors bring to a firm's innovative activities.

In addition, as of 2023, China's manufacturing sector has held the world's largest share of manufacturing output for fourteen consecutive years. And it has attracted substantial foreign equity and internationalized talent. This highly valuable sector provides a compelling research sample. Understanding the roles of foreign directors, returnee directors, and foreign ownership is of paramount importance. Through a review of the literature, this study extends the literature on foreign directors, returnee directors, and foreign ownership from a strategic management background to the context of corporate finance and corporate governance. Based on a review of the literature on returnee directors, this study also introduces an interaction variable, namely, state ownership. By expanding and diffusing strategic management theories into corporate finance, this interdisciplinary literature elucidates how new governance roles in an era of economic globalization, such as foreign directors, returnee directors, and foreign ownership, can contribute to greater innovative output for firms. The presence of interaction variables in the research scope also signifies potential conditions that may influence the relationship between returnee directors and corporate innovation.

As outlined in the scope of this study, foreign directors, returnee directors, and foreign ownership are not only relevant at the firm level but also integral components of the global economic agenda. Intriguingly, the origins of agency theory and upper echelon theory revolve around agency conflicts at the firm level and issues of individual characteristics. This provides inspiration for extending these theories to the domain of corporate innovation, a dimension that has been seldom explored by these theories, opening up relatively uncharted territory in the academic discourse.

1.7 Significance of the Study

This study may have potential impacts and governance implications for the field of corporate innovation from both theoretical and practical perspectives.

From a theoretical perspective, this study is grounded in agency theory and examines the distinct supervisory roles of different types of foreign directors (foreign independent directors, foreign chairman, and foreign managing directors). This approach goes beyond the resource dependency theory's explanation of foreign directors' governance roles. Agency theory posits that managers possess more information than principals, leading to information asymmetry and potential agency conflicts due to managers' self-serving motives. Indeed, foreign directors occupy diverse positions, with foreign managing directors serving both as board members and managers. Differentiating the roles of foreign directors based on their agency motives provides new theoretical support for applying agency theory to the field of innovation.

Meanwhile, this study presents five practical significances for the field of corporate innovation. First, this study adds to the corporate finance literature by examining another impact of foreign directors, which is corporate innovation. Foreign experience provides a scarce and valuable resource for corporate governance (Slater & Dixon-Fowler, 2009), fostering a global mindset in individuals (Levy et al., 2007). This study explores whether foreign directors with a global perspective and broader knowledge contribute to creative activities such as corporate innovation. The findings can assist corporate boards and policymakers in making informed decisions about incorporating different types of foreign directors to enhance corporate governance and drive innovation.

Second, by examining the impact of returnee directors on corporate innovation, this study aims to fill a void in the existing literature that primarily concentrates on foreign directors as the sole category of directors possessing an international background that fosters innovation around corporate governance. To our knowledge, the utilization of foreign directors as the sole metric for assessing board internationalization has been a prevalent practice for a considerable duration (Hooghiemstra et al., 2019; Oxelheim et al., 2013). Moreover, this study meticulously examines whether the three different sources of returnee directors (study background, work background, and dual backgrounds) all have an impact on corporate innovation to provide empirical evidence on this neglected group. In addition, this study may help corporate boards and policymakers in making more informed decisions when dealing with issues like setting up corporate governance mechanisms (employing returnee directors) to promote the effectiveness of a firm's innovation behaviours.

Third, this study adds the literature by examining the foreign ownership and corporate innovation link in emerging countries with the highest level of foreign investment, which is China (Hao et al., 2020). Foreign investors' shareholdings are not just through equity participation but through a range of relationships and business activities involved in corporate governance (Douma et al., 2006; Gradstein & Justman, 2000; Zhao et al., 2022). Foreign investors also provide advanced technological, managerial knowledge and resources to domestic firms, rather than just financial contributions (Al-Matari et al., 2019; Kim et al., 2019; Nguyen, 2019), this is particularly important for firms in emerging countries. It is worth emphasising that foreign investors also use their shares as leverage to encourage domestic firms to invest more in technology development (Chang et al., 2006), which is a topic of interest to policymakers aiming to attract foreign investment.

Fourth, while research on the impact of returnee directors on corporate innovation can provide valuable perspectives and recommendations for firms to enhance innovation through human capital, there is little research to identify the interaction effect of state ownership on the relationship between returnee directors and corporate innovation. There is a gap in the existing literature: considering the potential risks of corporate performance, managers do not actively strive for corporate innovation (Laux, 2015). According to the findings of Naughton (2017), the Chinese government exercises an unparalleled degree of influence over the corporate economy relative to other countries categorized as either middle-income or developed. This level of control may lead to the establishment of a minority state ownership "rule" where SOEs prioritize political and social objectives over corporate performance considerations (Bhaumik et al., 2019; Inoue et al., 2013; James & Vaaler, 2018), and a conspicuous absence of consensus persists regarding the potential interaction effect of state ownership on the relationship between returnee directors and corporate innovation, and this study will fill these gaps.

Fifth, this study adds the corporate finance literature by examining the impact of foreign directors, returnee directors, and foreign ownership on corporate innovation