Global Business and Management Research: An International Journal
Vol. 16, No. 4s (2024)

Role of corporate governance and technological innovation in the relationship between private equity and corporate value: A conceptual review

Zhang Qun*
School of Management, Universiti Sains Malaysia, 11800 Minden, Pulau Pinang, Malaysia
Email: zhangqun@student.usm.my

Abdul Hadi Zulkafli*
School of Management, Universiti Sains Malaysia, 11800 Minden, Pulau Pinang, Malaysia
Email: hadi_zml@usm.my

* *Corresponding Author*

Abstract

Purpose: Private Equity (PE) investments have gained significant attention in recent years. PE typically involves companies whose shares are not publicly traded. This conceptual review aims to examine how corporate governance and technological innovation contribute to shaping the relationship between PE and the corporate value of invested firms in China.

Design/methodology/approach: This study comprises a comprehensive literature review and synthesis of existing literature on PE. It involves the synthesis of studies exploring the intersections between corporate governance, technological innovation, PE investments, and corporate value in China. We examined how these factors interplay and sought to conceptualize their moderating effects. The PE characteristics under consideration encompass foreign ownership, state ownership, PE reputation, shareholding ratio, investment horizon, and joint investment.

Findings: This conceptual review demonstrated the multifaceted relationships involving PE variables by drawing insights from four theoretical perspectives: Agency Theory, Schumpeter's Theory of Economic Development, Resource-Based View (RBV), and Stakeholder Theory. We propose that technological innovation and corporate governance play pivotal roles in shaping the connections between PE investments and corporate value. Specifically, these factors may modify the impact of PE characteristics on corporate value. Our conceptual analysis illuminates the significance of corporate governance and technological innovation as factors influencing the effectiveness of PE investments in enhancing corporate value.

Research limitations/implications: This study's limitations include the reliance on existing literature and the need for further empirical research to validate the conceptual framework.

Practical implications: The insights from this conceptual review can guide decision-making for investors and firms looking to leverage PE investments in the context of corporate governance and technological innovation in China.

Originality/value: This study contributes to the literature by offering a comprehensive conceptual analysis of the interplay between corporate governance, technological innovation, and PE investments in the Chinese corporate landscape, shedding light on their potential impacts on corporate value.

Keywords: Private Equity, Corporate Governance, Technological Innovation, Corporate Value, China, Grounded Theory

Introduction

Private Equity (PE) has emerged as a major player in the global financial arena, significantly transforming business landscapes worldwide, including substantial influence in major economies like China (Bertoni & Groh, 2022). Their strategic capital infusions into privately owned companies aim to enhance value by implementing operational and managerial improvements. The trend of PE investments in China took root decades ago and has since served as a substantial force in strengthening technological innovation, particularly in high-tech firms, heavily backed by governmental investment funds (Chen, 2022).

The intricate and multifaceted dynamics between PE investments and corporate value in the Chinese context prompt an exploration of the relationships between PE, corporate governance, technological innovation, and corporate value. Corporate governance, serving as the framework governing owner-manager relationships, plays a pivotal role in determining how companies are managed and controlled. Concurrently, technological innovation has emerged as a cornerstone for gaining a competitive advantage and fostering business growth in the contemporary era.

To comprehensively understand the interplay of these factors, this conceptual review undertakes a comprehensive literature review and synthesis of existing academic research. The main objective is to examine how corporate governance and technological innovation contribute to shaping the intricate relationship between PE and the corporate value of invested firms in China. The study further scrutinizes the potential moderating effects of these factors on various PE characteristics, including foreign ownership, state ownership, PE reputation, shareholding ratio, investment horizon, and joint investments.

This conceptual analysis is grounded in four theoretical perspectives: Agency Theory, Schumpeter's Theory of Economic Development, Resource-Based View (RBV), and Stakeholder Theory. These theoretical lenses provide a robust framework to explore the multifaceted relationships involving PE variables. Importantly, the study proposes that technological innovation and corporate governance play pivotal roles in modifying the impact of PE characteristics on corporate value.

As the relationships unfold, it becomes evident that the effectiveness of PE investments in enhancing corporate value is intricately linked to the strategic integration of technological innovation and robust corporate governance practices. The conceptual framework developed in this review not only sheds light on these intricate relationships but also provides a foundational understanding of how technological innovation and corporate governance collectively contribute to shaping the landscape of PE investments in China.

Literature Review

This conceptual review paper provides a detailed summary of grounded theories and empirical evidence on how corporate governance and technological innovation influences the relationship between PE and corporate value. This study provides a comprehensive overview of the importance of PE firms in China about corporate value and intersection with the financial landscape, particularly corporate governance, and technological innovation within the invested firms.

Grounded Theory

The study on PE characteristics and corporate value in China, with corporate governance and technological innovation playing interaction roles, is fundamentally grounded in five key theories: Agency Theory, Schumpeter's Theory of Economic Development, Resource-Based View (RBV), and Stakeholder Theory.

Agency Theory provides a lens through which we can examine how corporate governance structures and mechanisms (e.g., board independence, board diversity, and board size) mitigate agency conflicts within PE-backed firms. The effectiveness of these governance mechanisms can significantly influence the value created by these investments. A study found a significant positive pay-performance relationship in China, thereby supporting the principles of agency theory. The results suggest that increases in the chief executive's compensation align with shareholders' wealth. That split-share structure reform has facilitated the practice of a performance-based incentive compensation system at many public firms (Luo, 2023).
Schumpeter's Theory of Economic Development enables us to explore the transformative power of the technological innovations market (e.g., research and development (R&D) expenditure, patents and intellectual property, and digitalization). China's rapid technological advancements make it a fertile ground for investigating how innovation drives economic growth and value creation within the PE investment context. A study from China shows that companies with technical founders are more likely to adopt digital transformation and thus show better innovation performance. The positive relationship between enterprise digital transformation and innovation performance and the mediating effect of digital transformation are positively moderated by PE support (Li et al., 2023).
The Resource-Based View (RBV) Theory guides our examination of how PE reputation and the unique resources firms hold contribute to their competitive advantage (e.g., resource variety, durability, and tangibility), consequently impacting corporate value. Moreover, a study from China revealed that inefficient private firms' transfer of equity to state-owned enterprises significantly improved enterprise efficiency (Mei-Sheng et al., 2023).
Stakeholder Theory informs our discussion on how shareholding ratios and joint investments influence the interests and outcomes of stakeholders involved in PE investments (e.g., ownership concentration, shareholder diversity and number of co-investors). Accordingly, companies should create value for all stakeholders, not just shareholders. A study from China showed that the positive relationship between overseas mergers and acquisitions (M&As) and corporate social responsibility (CSR) is strengthened by higher cultural diversity in the region. Moreover, CSR's positive effect is stronger when cultural diversity is more substantial (Yang et al., 2022).

Concept of PE Investment
Private Equity is a type of investment that involves the direct acquisition of ownership stakes in private companies or the buyouts of public companies to delist them from public exchanges. Essentially, it embodies a direct investment approach where investors acquire significant, often controlling, stakes in companies to unlock value and generate substantial returns (Gompers, Kovner, Lerner, & Scharfstein, 2008).
In the early stages of PE development, investments were primarily channelled to distressed companies to restructure operations and improve efficiencies to generate substantial returns upon exit (Gompers, Kaplan, & Mukharlyamov, 2016). The beginning of this lifecycle involves the identification of a suitable investment opportunity where the target company exhibits potential for high growth and value generation (Kaplan & Strömberg, 2009). Once the PE firm acquires an ownership stake in the target company, it actively participates in its governance to drive strategic and operational improvements.

Private Equity Characteristics
Private Equity characteristics can be categorised into two broad types: inherent and behavioral. Inherent characteristics include elements like the background of the PE firm (foreign or state-owned), the reputation of the firm, and the expertise of its management team. Behavioral

characteristics encompass factors such as the shareholding ratio, the investment horizon, and the propensity for joint investments (Hitt et al., 2000; Gompers, 1996).
Essentially, inherent characteristics of PE firms often refer to fundamental attributes that are integral to the nature of the firm. According to Cumming, Schmidt, and Walz (2010), inherent characteristics could include the firm's background, such as whether it's foreign or state-owned, and its reputation in the market. The nature of these inherent attributes is that they are usually stable over time and often beyond the immediate control of the firm's management.
In terms of behavioral characteristics, these traits reflect the PE firm's strategic choices and actions. They may include the firm's investment horizon, the shareholding ratio in invested firms, and the approach to joint investments (Kaplan & Strömberg, 2009). Unlike inherent characteristics, behavioral characteristics are more dynamic and can be influenced by the firm's management.
According to Kaplan and Strömberg (2009), foreign PE firms, a type of inherent characteristic, often bring international expertise, networks, and innovative governance practices that can enhance the value of the invested firms. In China, foreign PE firms could significantly transfer global best practices and foster international collaborations. State-owned PE firms can offer unique benefits in the Chinese aspect.
On the other hand, behavioral characteristics such as the shareholding ratio, investment horizon, and joint investments play a significant role in shaping the outcomes of PE investments. A higher shareholding ratio can give the PE firm more control and influence over the invested firm, potentially leading to improved corporate performance (Cornelli & Karakas, 2012).

Corporate Value

The concept of corporate value has been at the forefront of business and economic discourse for decades. Corporate value, also known as firm value or enterprise value, is the total value of a company, including its equity, debt, and any other interest-bearing liabilities, less cash and cash equivalents (Damodaran, 2012). This measure allows investors, management, and stakeholders to holistically understand a company's worth. In Asia, and notably in China, the concept of corporate value has been shaped by unique institutional and cultural factors. While the principle of value maximisation is widely recognised, the interpretation and implementation of this principle often reflect the influence of local business practices, societal norms, and government policies.
Since the late 1970s, China has undergone a series of market-oriented reforms, including the liberalisation of capital markets and increased openness to foreign investment. These changes have brought corporate value more in line with global norms, with an increasing emphasis on shareholder value (Yao, Ma, & He, 2013). However, the transition is incomplete, and firms' valuation still reflects the influence of legacy institutional factors.

Corporate Governance

Corporate Governance is a crucial concept that refers to the systems, principles, and processes by which a company is governed. It involves balancing the interests of a company's many stakeholders, such as shareholders, management, customers, suppliers, financiers, government, and the community (Tricker, 2015). Though "corporate governance" started gaining prominence in the 1970s, its principles and mechanisms have evolved over centuries. Corporate governance mechanisms, such as independent boards of directors and executive compensation linked to performance, aim to mitigate these agency costs and align the interests of managers and shareholders (Jensen & Meckling, 1976).
Corporate governance evolved significantly in the late 20th century in the United States, especially after several high-profile corporate scandals like Enron and WorldCom. These

events led to a greater focus on corporate governance and the enactment of the Sarbanes-Oxley Act in 2002, which imposed stricter regulations on financial reporting and greater accountability for corporate directors and officers (Romano, 2005).
In Europe, the United Kingdom has been at the forefront of corporate governance reforms, with the Cadbury Report in 1992 and the subsequent Combined Code providing a framework for corporate governance based on "comply or explain" principle. In recent years, the European Union has also introduced several directives to harmonise corporate governance practices across member states (Aguilera & Cuervo-Cazurra, 2009).
In China, corporate governance has undergone significant transformation over the past two decades as the country transitioned from a centrally planned economy to a market economy. Chinese corporate governance is characterised by a high prevalence of state-owned enterprises and the significant influence of government policies. Despite the progress, issues like protection of minority shareholders' rights and transparency remain challenging (Tam & Tan, 2007).

Technological Innovation

Technological innovation is integral to modern economies, propelling economic growth, productivity, and corporate value (Schumpeter, 1934). It encompasses creating and applying new knowledge to design and improve products, services, or processes. Technological innovation can manifest in various forms, including product innovation (new or improved goods or services), process innovation (new or improved ways of producing or delivering goods or services), organisational innovation (new organisational methods in business practices, workplace organisation, or external relations), and marketing innovation (new marketing methods involving significant changes in product design or packaging, product placement, product promotion, or pricing) (OECD, 2005). Technological innovation is not merely about inventing new products or processes, but also involves the diffusion and adoption of these new technologies (Rogers, 2003).
Comparatively, China has evolved remarkably over the past decades regarding technological innovation. Once seen as a follower in technology, China has been rapidly transitioning to a global innovation leader. Chinese firms are improving existing technologies and pioneering new technologies in areas like 5G, artificial intelligence, and e-commerce (Xue & Larson, 2020). This contrasts with neighbouring Asian countries like Vietnam, Cambodia, and Laos, which still primarily focus on incremental innovations and technology adoption (Intarakumnerd & Chaoroenporn, 2013). China's technological innovation system has been evolving rapidly. While historically, China has been seen as a fast follower, leveraging technology transfers and reverse engineering to catch up with advanced economies, this has changed (Fu, Woo, & Hou, 2016). The Chinese government's significant investments in research and development, STEM education, and policies encouraging innovation have started bearing fruit. China is increasingly recognised as a global e-commerce, telecommunications, and artificial intelligence leader.
Technological innovation is critical for several reasons. It fosters economic growth, improves productivity, and creates competitive advantage. For firms, it can lead to new or improved products, open new markets, and enhance operational efficiency (Porter & Heppelmann, 2014). Over the years, technological innovation has evolved tremendously, particularly with the advent of digital technologies. China has transformed from a technology adopter to a global technology innovator, thanks in part to significant investments in research and development and a strategic focus on science and technology education (Zhou, 2018). Therefore, managing technological innovation effectively requires a balanced approach that maximises the benefits while minimising the potential adverse impacts.

Hypothesis Development

PE Inherent Characteristics and Corporate value

Empirical Review

Private Equity inherent characteristics, including the background and reputation of the firm, can significantly impact the corporate value of invested companies. For instance, PE firms with a strong reputation or a foreign background are often associated with higher corporate value of their portfolio companies.

Similarly, PE firms with foreign ownership can bring unique advantages. According to a study by Meyer, Ding, Li, and Zhang (2014), foreign PE firms can add value to their invested companies through their global networks and management practices. Concerning China, these foreign PE firms can play a crucial role in helping Chinese companies expand internationally, which can significantly enhance their corporate value.

Similarly, PE firms with foreign ownership can bring in international perspectives, access to foreign markets, and advanced management practices, thereby enhancing the corporate value of invested companies (Guler & Guillén, 2010). Concerning China, foreign PE firms have played a crucial role in facilitating the internationalisation of Chinese firms, enhancing their corporate value (Rui & Yip, 2008).

However, the current research posits that the relationship between PE firm characteristics and the corporate value of invested companies is likely to be influenced by several other factors, such as the industry in which the company operates, the stage of the company's life cycle, and the broader economic and regulatory environment. Therefore, while the findings of the cited studies are insightful, the current research believes there is a need for further research to unravel the complex interplay of these factors, given PE investments in China.

Hypothesis Development

Firstly, companies invested by foreign PE firms in China inherently experience a greater boost in their corporate value due to the global expertise and networks brought by these foreign firms. Secondly, leveraging an array of resources, state-owned PE firms can distinctly influence the trajectory of their portfolio companies in ways that often diverge from private or foreign PE firms. Thirdly, established and reputable PE firms are inherently more equipped to enhance the corporate value of their portfolio companies: Therefore, the hypotheses are as below:

Hypothesis 1.1: PE firms with foreign ownership inherently enhance the corporate value of their portfolio companies in China more significantly than domestic PE firms.

Hypothesis 1.2: Compared to PE firms with total private-sector ownership, those with state ownership can help the invested companies perform better in corporate value.

Hypothesis 1.3: Firms with a strong PE reputation inherently possess a higher corporate value compared to those associated with less reputable PE firms.

PE Behavioral Characteristics and Corporate value

Empirical Review

Behavioural characteristics of PE, such as the shareholding ratio, investment horizon, and joint investment, also have substantial implications for the corporate value of invested firms.

A study by Gompers, et al. (2008) found that the shareholding ratio of PE firms in their portfolio companies could substantially impact corporate value. The research noted that a significant shareholding ratio allows PE firms to have a say in strategic decisions, improving operational efficiency and, consequently, corporate value.

Research by Cao (2011) demonstrates that the shareholding ratio of a PE firm in a portfolio company can affect the corporate value. A significant shareholding ratio enables PE firms to

exercise control and influence the company's strategic decisions, thereby improving operational efficiency and corporate value.
The investment horizon of PE firms also matters. A study by Achleitner, Braun, and Engel (2011) revealed that PE firms with a long-term investment horizon could add more value to their portfolio companies. Such firms can undertake strategic initiatives that might take time to yield results but are beneficial in the long run.
The evidence provided by Gompers et al. (2008) and Cao (2011) regarding the impact of a PE firm's shareholding ratio aligns well with the research's understanding of the PE investment landscape. It is intuitive and truly justifiable that a significant shareholding ratio can enable PE firms to exercise control and influence strategic decisions, leading to improved operational efficiency and corporate value.
However, while the reviewed studies provide valuable insights, the current research believes that the relationship between PE behavioural characteristics and corporate value is multifaceted and context specific. It is likely influenced by many other factors, including the specific industry, the regulatory environment, and the macroeconomic conditions. Hence, the research advocates for more comprehensive and context-specific research to further explore these dynamics, especially regarding China's unique economic and regulatory landscape.

Hypothesis Development

Firstly, A significant shareholding ratio by PE firms inherently leads to improved operational efficiency and, subsequently, higher corporate value. Secondly, PE firms with a long-term investment horizon inherently contribute more positively to the corporate value of their portfolio companies. Thirdly, Joint investments or syndications inherently enhance the corporate value of invested companies due to the combined expertise and shared risks. Therefore, the hypotheses are as below.
Hypothesis 1.4: The higher the shareholding ratio of PE, the better the corporate value performance of the invested company.
Hypothesis 1.5: The longer the investment horizon of PE, the better the corporate value performance of the invested company.
Hypothesis 1.6: The more joint investments by PE, the better the corporate value performance of the invested company.

Interaction Effect of Corporate Governance on the Relationship between PE Characteristics and Corporate Value

Empirical Review

The interaction between corporate governance, PE characteristics, and corporate value has been extensively studied in the literature. A good example is studies by Cumming, Schmidt, and Walz (2010) demonstrated that corporate governance structures can significantly influence the way PE firms influence corporate value. In companies with robust governance structures, the influence of PE firms tends to be more positive, leading to an enhancement in corporate value.
PE firms' unique characteristics further complicate PE characteristics and corporate value. According to a study by Guo, Hotchkiss, and Song (2011), PE firms often bring a unique set of governance practices that can significantly influence the corporate value of the firms they invest in. These practices, which usually involve establishing strict monitoring mechanisms and implementing performance-based incentive structures, can help align the interests of managers and shareholders, thereby enhancing corporate value.
Particularly in China, the relation of these factors is even more intriguing due to the unique institutional environment. A study by Zhang and Zhu (2011) in the Chinese setting revealed that the interaction effect of corporate governance can significantly moderate the relationship

between PE characteristics and the corporate value of invested companies. The role of corporate governance in the relationship between PE characteristics and corporate value has also been the focus of numerous studies. A great reference is a study by Cumming, Fleming, and Schwienbacher (2005), who demonstrated that in Chinese companies with strong corporate governance structures, PE investments were associated with a significant increase in corporate value.

The unique governance practices introduced by PE firms, as identified by Guo et al. (2011), resonate with the research's understanding of the transformative role PE firms often play. These practices, such as establishing strict monitoring mechanisms and implementing performance-based incentive structures, assist align the interests of managers and shareholders, thereby enhancing corporate value.

However, it is also recognised by the current research that this relationship can be influenced by other factors, such as the industry in which the firm operates, the economic climate, and the regulatory environment. Therefore, while the existing literature provides valuable insights, the research advocates for further research that considers these additional factors, especially in the setting of China. These studies could provide a more nuanced understanding of the complex dynamics and offer more context-specific recommendations for enhancing corporate value through PE investments and effective corporate governance.

Hypothesis Development

Companies with robust corporate governance structures inherently benefit more from PE investments, leading to a pronounced enhancement in their corporate value. Unique governance practices introduced by PE firms inherently align the interests of managers and shareholders, boosting corporate value. The influence of PE firms on corporate value in China is inherently moderated by the country's distinct institutional and regulatory framework. Therefore, the hypotheses are as below:

Hypothesis 2: Corporate governance positively influence the relationship between private equity investment and corporate value of invested companies.

Hypothesis 2.1: Corporate governance positively influence the relationship between foreign ownership of PE and corporate value of invested companies.

Hypothesis 2.2: Corporate governance positively influence the relationship between state ownership of PE and corporate value of invested companies.

Hypothesis 2.3: Corporate governance positively influence the relationship between PE reputation and corporate value of invested companies.

Hypothesis 2.4: Corporate governance positively influence the relationship between shareholding ratio of PE and corporate value of invested companies.

Hypothesis 2.5: Corporate governance positively influence the relationship between investment horizon of PE and corporate value of invested companies.

Hypothesis 2.6: Corporate governance positively influence the relationship between joint investment of PE and corporate value of invested companies.

Interaction Effect of Technological Innovation on the Relationship between PE Characteristics and Corporate Value

Empirical Review

The role of technological innovation in PE investment settings has also been explored in the literature. With great reference, writings like that of Chemmanur, Loutskina, and Tian (2014) have shown that the capacity of a firm to innovate can significantly affect how PE investments impact corporate value. Technologically innovative firms tend to benefit more from PE investments as these investments often help them commercialise their innovations, enhancing their corporate value.

In Chinese setting, technological innovation plays a particularly crucial part due to the country's focus on becoming a global leader in technology. According to a study by Li, Wang, and Wang (2018), Chinese firms that are highly innovative tend to derive significant benefits from PE investments. This suggests that technological innovation can be key in determining how PE investments influence corporate value in China. Moreover, a study by Tian (2016) demonstrated the significant interaction effect of technological innovation on the relationship between PE characteristics and corporate value of invested firms. The study revealed that PE investments in technologically innovative Chinese firms tend to translate into greater corporate value, suggesting a positive interaction effect.

The current research acknowledges the substantial influence of technological innovation on the relationship between PE characteristics and corporate value, as reflected in the empirical studies by Chemmanur et al. (2014) and Bernstein et al. (2016). The idea that technologically innovative firms could substantially benefit from PE investments resonates strongly with the research's perspective. Such firms often require significant capital to commercialise their innovative concepts, and PE investments could provide the necessary financial support.

Nonetheless, the current research also acknowledges that the relationship between technological innovation, PE characteristics, and corporate value is complex and could be influenced by other factors. These could include the nature of the innovation, the regulatory environment, and the industry in which the firm operates. Hence, while the existing literature provides valuable insights, the research advocates for further investigations considering these additional factors, particularly in the Chinese setting. This could provide a more comprehensive understanding of the interaction effect of technological innovation on the relationship between PE characteristics and corporate value.

Hypothesis Development

Firms with a high capacity for technological innovation inherently derive more value from PE investments. PE investments inherently provide more substantial value enhancements in technologically innovative firms by aiding in commercialising their innovations. In China, technologically innovative firms inherently experience a more significant positive impact from PE investments, given the country's emphasis on technological leadership. Therefore, the hypotheses are as follows:

Hypothesis 3: Technological innovation positively influence the relationship between private equity investment and corporate value of invested companies.

Hypothesis 3.1: Technological innovation positively influence the relationship between foreign ownership of PE and corporate value of invested companies.

Hypothesis 3.2: Technological innovation positively influence the relationship between state ownership of PE and corporate value of invested companies.

Hypothesis 3.3: Technological innovation positively influence the relationship between PE reputation and corporate value of invested companies.

Hypothesis 3.4: Technological innovation positively influence the relationship between shareholding ratio of PE and corporate value of invested companies.

Hypothesis 3.5: Technological innovation positively influence the relationship between investment horizon of PE and corporate value of invested companies.

Hypothesis 3.6: Technological innovation positively influence the relationship between joint investment of PE and corporate value of invested companies.

Control Variables

Investment Size

The size of the investment is often considered a significant factor in investment decisions and outcomes. A larger investment size indicates a higher level of confidence in the venture's potential success and often leads to more significant control and influence by the investor (Gompers, 1995). Cumming, Siekel, and Wright (2007) found that larger investments are associated with higher post-investment performance, as they allow more resources to be allocated to the venture's development and growth.

For the setting of China, PE investments have grown significantly over the past few decades (Zhang & Zhu, 2021). This trend indicates the increasing importance of PE as a financing source for Chinese companies, especially those in high-growth sectors such as technology and biotechnology.

Asset-liability Ratio

The asset-liability ratio is a critical measure of a company's financial health, reflecting the proportion of a company's assets financed by debt. A higher asset-liability ratio can signify financial risk but may also reflect a firm's aggressive growth strategy (Frank & Goyal, 2009).

In China, research by Chen and Strange (2005) indicated that companies with lower asset-liability ratios tend to perform better in corporate value, suggesting that a lower reliance on debt benefits firm performance. However, this may vary depending on the specific circumstances and industry of the company.

Corporate Growth

Corporate growth is a key determinant of corporate value and an important factor in investment decisions. Gompers, Kovner, Lerner, & Scharfstein (2008) highlights that PE firms often target high-growth firms, expecting higher returns.

In China, high-growth companies, particularly in the technology sector, have attracted significant PE investment. According to a study by Wang, Wang, and Lu (2013), PE-backed firms in China showed faster growth rates and better performance than their non-PE-backed counterparts, highlighting the positive impact of PE investment on corporate growth.

Industry Variable

Industry characteristics play a significant role in investment decisions and outcomes. As per Gompers et al. (2005), Certain industries, particularly those characterised by high growth rates and high levels of innovation, are often more attractive to PE investors.

In a Chinese setting, PE investments have been particularly prominent in high-tech industries and sectors with high growth potential, such as biotechnology and renewable energy (Wright, Pruthi, & Lockett, 2005). This suggests that industry characteristics are a significant factor in determining the impact of PE investments in China.

Theoretical Framework

The theoretical framework of the study (Figure 1) examines the relationship between PE characteristics and the corporate value of invested firms in China. It examines the effect of PE characteristics on the performance and value of corporations. In addition, the study investigates the moderating impacts of Corporate Governance and Technological Innovation on the relationship between PE characteristics and corporate value.

This framework classifies the independent variables (IV), PE Characteristics, into Inherent and Behavioral Characteristics. Furthermore, Foreign ownership, State ownership, and Reputation are Inherent Characteristics, whereas Shareholding Ratio, Investment Horizon, and Joint Investment are Behavioral Characteristics. The dependent variable (DV), Corporate Value, is evaluated using Corporate Tobin Q and Return on Equity (ROE) metrics. In addition, the framework considers the potential moderating effect of Corporate Governance and Technological Innovation on the relationship between PE Characteristics and Corporate Value.

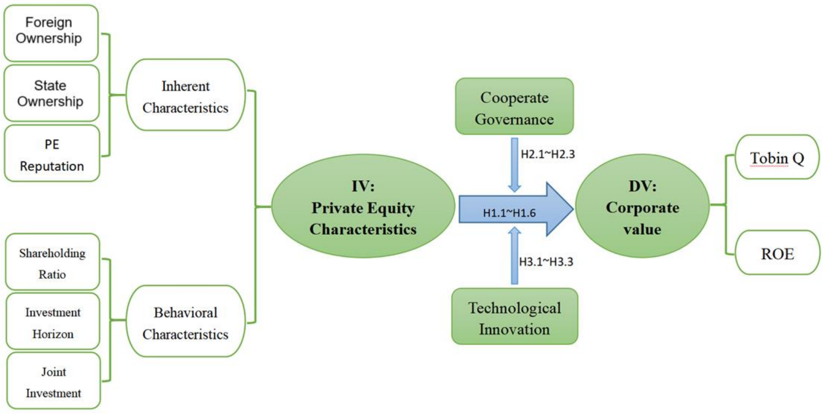

Figure 1: Theoretical Framework

Methods

This conceptual review involves a systematic and comprehensive literature review encompassing three main components: The first phase involves an extensive exploration of scholarly articles, industry reports, and case studies that focus on various PE characteristics. These include foreign ownership, state ownership, PE reputation, shareholding ratio, investment horizon, and joint investments. The goal is to identify key findings and trends regarding how these characteristics impact corporate value in the Chinese business landscape. The second component of the literature review is dedicated to theoretical perspectives. Drawing from the fields of finance, economics, and management, the study critically reviews and synthesizes existing research grounded in Agency Theory, Schumpeter's Theory of Economic Development, Resource-Based View (RBV), and Stakeholder Theory. This step aims to gain a nuanced understanding of the conceptual underpinnings and theoretical frameworks that inform the relationships between Private Equity, corporate governance, technological innovation, and corporate value. Recognizing the unique economic, regulatory, and cultural factors influencing business dynamics in China, the literature review focuses on studies specific to the Chinese context. This involves a careful analysis of how the interplay between Private Equity, corporate governance, and technological innovation unfolds within the particularities of the Chinese business environment. Based on the synthesized findings, a conceptual framework is developed. This framework serves to outline the roles of corporate governance and technological innovation in moderating the impact of Private Equity characteristics on corporate value. It provides a structured and comprehensive overview of the complex relationships under consideration.

Findings

The research provided a detailed literature review, grounding the study in the theoretical framework of Agency Theory， Schumpeter’s Theory of Economic Development， Resource-Based View (RBV), and Stakeholder Theory. The research commenced with a comprehensive exploration of these theories, outlining their foundational principles, assumptions, and relevance to the study.

The research then moved into a deep dive into the concept of Private Equity (PE) investments, elucidating the inherent and behavioural characteristics of PE investments. It further highlighted the evolution and unique characteristics of PE investments in different geographic views, with a particular focus on China. The concept of corporate value was explicated, with Tobin's Q and ROE outlined as key indicators. This section also traced the progression of corporate value measurement approaches in different countries, emphasizing the distinctive landscape in China due to its unique market dynamics and the prevalence of state-owned enterprises.

An exhaustive review of corporate governance was presented, discussing its role in aligning the interests of managers and shareholders. This section also dissected the unique challenges and characteristics of corporate governance in China, setting the stage for its exploration as a moderating variable in the study. The chapter also delved into technological innovation, a critical factor influencing economic growth, corporate value, and attractiveness for PE investments. The evolution and role of technological innovation in different countries were discussed, with a spotlight on China's innovation landscape.

The empirical literature review section provided an overview of previous studies related to the study's research questions and objectives. It covered research on the relationship between PE characteristics and corporate value, the moderating role of corporate governance, and the influence of technological innovation.

Discussion and Conclusion

The examination of the relationships between Private Equity (PE), corporate governance, technological innovation, and corporate value in the Chinese context reveals a complex interplay that requires a nuanced discussion. Drawing on specific case studies and examples, this discussion aims to illuminate the practical implications and theoretical insights derived from the conceptual review. The research concluded with a discussion of the control variables, including investment size, asset-liability ratio, corporate growth, and industry variables, which have been considered in the empirical literature. The literature review has laid a robust foundation for the research, establishing the theoretical underpinnings, contextualizing the key concepts within the specific Chinese setting, and identifying gaps in the existing literature. This theoretical and empirical grounding will guide the development of the research methodology and the interpretation of findings in the following research.

Theoretical Implications

The research's discoveries can direct finance procedures, illuminate strategy choices, and invigorate further scholarly request. For example, financial backers can use these bits of knowledge to refine their venture standards and methodologies. Policymakers can utilize the discoveries to form more powerful guidelines and backing measures for PE ventures. Analysts can expand on the review's discoveries to investigate different parts of PE investments in China and other developing business sectors.

By providing a comprehensive and nuanced understanding of the dynamics of PE investment characteristics, corporate governance, and technological innovation, as well as their collective impact on corporate value in China, this study adds to the existing body of knowledge on a theoretical level. It applies existing theories, like the Agency Theory, to China's unique economic landscape, which is rapidly changing. Agency theory explains that there is a relationship between the owners and managers of a company. The idea behind the agency theory is that, when a company is initially established, the owners are also the managers. However, as the company grows, the owners hire managers who are expected to run the company with the interest of the owners in their minds. The agency relationship between owners and managers influences the corporate governance of an organization (Panda, 2017). By incorporating the interplay between corporate governance and technological innovation, the study's findings add complexity to our understanding of the mechanisms by which PE investments can increase corporate value.

Practical and Social Implications

The review's discoveries have significant functional pertinence. The findings of the study can assist PE investors in identifying opportunities that have the potential to yield superior returns and in providing them with useful guidance for their investment decisions. It can help them evaluate potential investment targets based on their innovation capabilities and governance structures, reducing risks and increasing value creation potential.

The findings of the study can help corporate managers in China understand how to use PE investments to increase the value of their businesses, highlighting the significance of effective corporate governance mechanisms and a robust innovation culture.

From a policy point of view, the study can help create regulatory frameworks that will foster a healthy environment for PE investments and guarantee that these investments effectively contribute to economic growth and technological advancement. Additionally, it may provide direction for the formulation of policies to promote technological innovation and raise corporate governance standards among PE-invested businesses, thereby advancing China's overall economic development objectives.

Overall, by highlighting the potential interactions between PE characteristics, corporate governance, and technological innovation, this study provides a solid foundation for further empirical investigations in these areas, which opens up new research avenues for the academic community.

Limitations and Suggestions for Future Research

Acknowledging the limitations of the study, including the reliance on existing literature and potential biases in selected sources, sets the stage for a reflective consideration of the generalizability and applicability of the proposed conceptual framework.

The study concludes with suggestions for future research, encouraging empirical validation of the conceptual framework through longitudinal studies and surveys within the dynamic Chinese business environment. Longitudinal studies would provide valuable insights into how these relationships evolve, accounting for changing economic, regulatory, and technological landscapes. Additionally, exploration of dynamic factors that may influence these relationships over time is proposed to further refine our understanding.

In conclusion, this conceptual review of PE was comprehensively synthesized, elucidating its inherent and behavioural characteristics. The evolution characteristics of PE in different geographic views was highlighted, with a particular focus on China. The concept of corporate value was illustrated, with Tobin's Q and ROE outlined as key indicators. The progression of corporate value approaches in different countries was traced, emphasising the distinctive landscape in China due to its unique market dynamics. Finally, the study provided the control variables, including investment size, asset-liability ratio, corporate growth, and industry variables, which have been considered in the empirical literature. The review has laid a robust foundation for the research, establishing the theoretical underpinnings, contextualising the key concepts within the specific Chinese setting, and identifying gaps in the existing literature. This theoretical and empirical grounding will guide the development of the research methodology and the interpretation of findings in the future studies.

References

Acharya, V. V., Gottschalg, O., Hahn, M., & Kehoe, C. (2013). Corporate governance and value creation: Evidence from private equity. Review of Financial Studies, 26(2), 368-402.

Achleitner, A. K., Braun, R., & Engel, N. (2011). Value creation and pricing in buyouts: Empirical evidence from Europe and North America. Review of Financial Economics, 20(4), 146-161.

Aguilera, R. V., & Cuervo-Cazurra, A. (2009). Codes of good governance. Corporate Governance: An International Review, 17(3), 376-387.

Allen, F., Qian, J., & Qian, M. J. (2005). Law, finance, and economic growth in China. Journal of financial economics, 77(1), 57-116.

Balasubramanian, B. N., Black, B. S., & Khanna, V. (2010). The relation between firm-level corporate governance and market value: A case study of India. Emerging Markets Review, 11(4), 319-340.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.

Bernstein, S., Giroud, X., & Townsend, R. R. (2016). The impact of venture capital monitoring. The Journal of Finance, 71(4), 1591-1622.

Block, F., & Keller, M. R. (Eds.). (2011). State of innovation: The US government's role in technology development. Routledge.

Bresnahan, T. F., & Trajtenberg, M. (1995). General purpose technologies: Engines of growth? Journal of Econometrics, 65(1), 83-108.

Bruton, G. D., Ahlstrom, D., & Puky, T. (2005). Institutional differences and the development of entrepreneurial ventures: A comparison of the venture capital industries in Latin America and Asia. Journal of International Business Studies, 36(5), 558-577.

Bruton, G. D., Filatotchev, I., Si, S., & Wright, M. (2010). Entrepreneurship and strategy in emerging economies. Strategic Entrepreneurship Journal, 4(3), 173-180.

Brynjolfsson, E., & McAfee, A. (2014). The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies. W. W. Norton & Company.

Cao, J. (2011). IPO timing, buyout sponsors' exit strategies, and firm performance of RLBOs. Journal of Financial and Quantitative Analysis, 46(4), 1001-1024.

Chemmanur, T. J., Loutskina, E., & Tian, X. (2014). Corporate venture capital, value creation, and innovation. The Review of Financial Studies, 27(8), 2434-2473.

Chen, X., & Strange, R. (2005). The determinants of capital structure: Evidence from Chinese listed companies. Economic Change and Restructuring, 38(1), 11-35.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. Administrative Science Quarterly, 35(1), 128-152.

Cornelli, F., & Karakas, O. (2012). Corporate governance of LBOs: The role of boards. Working Paper. London Business School.

Cumming, D. (2006). Legality and venture capital exits. Journal of Corporate Finance, 16(2), 234-245.

Cumming, D., Schmidt, D., & Walz, U. (2010). Legality and venture capital governance around the world. Journal of Business Venturing, 25(1), 54-72.

Cumming, D., Siegel, D. S., & Wright, M. (2007). Private equity, leveraged buyouts and governance. Journal of Corporate Finance, 13(4), 439-460.

Da Rin, M., Hellmann, T., & Puri, M. (2013). A survey of venture capital research. In Handbook of the Economics of Finance (Vol. 2, pp. 573-648). Elsevier.

Dai, N. (2016). Understanding the role of culture in private equity: The case of China. Journal of Private Equity, 19(2), 37-52.

Damodaran, A. (2012). Investment valuation: Tools and techniques for determining the value of any asset. John Wiley & Sons.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organisational fields. *American Sociological Review*, *48*(2), 147-160.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. Academy of Management Review, 14(1), 57-74.

Fagerberg, J. (2005). Innovation: A Guide to the Literature. In: J. Fagerberg, D. C. Mowery, R. R. Nelson (eds), The Oxford Handbook of Innovation. Oxford University Press.

Fagerberg, J., & Srholec, M. (2008). National innovation systems, capabilities, and economic development. Research Policy, 37(9), 1417-1435.

Fisher, I. (1930). The theory of interest. Macmillan.

Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: which factors are reliably important?. Financial Management, 38(1), 1-37.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Fu, X., Woo, W. T., & Hou, J. (2016). Technological innovation policy in China: The lessons, and the necessary changes ahead. Economic Change and Restructuring, 49(1), 341-362.

Gompers, P. (1995). Optimal investment, monitoring, and the staging of venture capital. The Journal of Finance, 50(5), 1461-1489.

Gompers, P. A. (1996). Grandstanding in the venture capital industry. Journal of Financial Economics, 42(1), 133-156.

Gompers, P., Kaplan, S. N., & Mukharlyamov, G. (2016). What do private equity firms say they do? Journal of Financial Economics, 121(3), 449-476.

Gompers, P., Kovner, A., Lerner, J., & Scharfstein, D. (2008). Venture capital investment cycles: The impact of public markets. Journal of Financial Economics, 87(1), 1-23.

Gompers, P., Kovner, A., Lerner, J., & Scharfstein, D. (2010). Performance persistence in entrepreneurship. Journal of Financial Economics, 96(1), 18-32.

Gompers, P., Lerner, J., & Scharfstein, D. (2005). Entrepreneurial spawning: Public corporations and the genesis of new ventures, 1986 to 1999. The Journal of Finance, 60(2), 577-614.

Gul, F. A., Kim, J. B., & Qiu, A. A. (2010). Ownership concentration, foreign shareholding, audit quality, and stock price synchronicity: Evidence from China. Journal of Financial Economics, 95(3), 425-442.

Guler, I., & Guillén, M. F. (2010). Home country networks and foreign expansion: Evidence from the venture capital industry. Academy of Management Journal, 53(2), 390-410.

Guo, S., Hotchkiss, E. S., & Song, W. (2011). Do buyouts (still) create value?. The Journal of Finance, 66(2), 479-517.

Hitt, M. A., Dacin, M. T., Levitas, E., Arregle, J. L., & Borza, A. (2000). Partner selection in emerging and developed market contexts: Resource-based and organisational learning perspectives. Academy of Management Journal, 43(3), 449-467.

Intarakumnerd, P., & Chaoroenporn, P. (2013). The roles of intermediaries in sectoral innovation systems in developing countries: Evidence from Thailand. Asian Journal of Technology Innovation, 21(1), 1-22.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3(4), 305-360.

Kaplan, S. N., & Schoar, A. (2005). Private equity performance: Returns, persistence, and capital flows. The Journal of Finance, 60(4), 1791-1823.

Kaplan, S. N., & Strömberg, P. (2003). Financial contracting theory meets the real world: An empirical analysis of venture capital contracts. The Review of Economic Studies, 70(2), 281-315.

Kaplan, S. N., & Strömberg, P. (2009). Leveraged buyouts and private equity. Journal of Economic Perspectives, 23(1), 121-146.

Kim, J. B., & Kim, C. (2003). Corporate governance in East Asia: A comparative study. Journal of Contemporary Accounting & Economics, 1(1), 1-19.

Kim, K. A., & Kim, M. (2009). Ownership structure and the relationship between financial slack and R&D investments: Evidence from Korean firms. Organization Science, 13(6), 633-649.

Lerner, J. (1994). The syndication of venture capital investments. Financial Management, 23(3), 16-27.

Lerner, J., Schoar, A., & Wongsunwai, W. (2007). Smart institutions, foolish choices: The limited partner performance puzzle. The Journal of Finance, 62(2), 731-764.

Li, W., & Yue, H. (2005). Comparative study of corporate governance in state-owned commercial banks and privately-owned commercial banks in China. Corporate Governance: An International Review, 13(2), 184-192.

Li, W., He, A., Lan, H., & Yen, J. (2008). Ownership, independence, and corporate governance in China. Journal of Business Ethics, 80(4), 519-536.

Li, Y., Wang, X., & Wang, J. (2018). China's patent explosion: Quantitative and qualitative evaluation. Science and Public Policy, 45(1), 40-53.

Mak, Y., & Li, Y. (2001). Determinants of corporate ownership and board structure: evidence from Singapore. Journal of Corporate Finance, 7(3), 235-256.

Megginson, W. L., & Netter, J. M. (2001). From state to market: A survey of empirical studies on privatisation. Journal of Economic Literature, 39(2), 321-389.

Metrick, A., & Yasuda, A. (2010). The economics of private equity funds. The Review of Financial Studies, 23(6), 2303-2341.

Meyer, K. E., Ding, Y., Li, J., & Zhang, H. (2014). Overcoming distrust: How state-owned enterprises adapt their foreign entries to institutional pressures abroad. Journal of International Business Studies, 45(8), 1005-1028.

Milhaupt, C. J. (2013). The Dark Side of Private Ordering: An Institutional and Empirical Analysis of Organised Crime. University of Chicago Law Review, 67(1), 41-98.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. The American Economic Review, 48(3), 261-297.

OECD (2005). Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition. The Measurement of Scientific and Technological Activities, OECD Publishing, Paris.

OECD. (2015). G20/OECD Principles of Corporate Governance. OECD Publishing, Paris.

Porter, M. E., & Heppelmann, J. E. (2014). How smart, connected products are transforming competition. Harvard Business Review, 92(11), 64-88.

Rappaport, A. (1986). Creating shareholder value: The new standard for business performance. Free Press.

Rogers, E. M. (2003). Diffusion of Innovations, 5th Edition. Free Press.

Romano, R. (2005). The Sarbanes-Oxley Act and the making of quack corporate governance. Yale Law Journal, 114(7), 1521-1611.

Rui, H., & Yip, G. S. (2008). Foreign acquisitions by Chinese firms: A strategic intent perspective. Journal of World Business, 43(2), 213-226.

Schumpeter, J. A. (1934). The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle. Harvard University Press.

Sorensen, M. (2007). How smart is smart money? A two-sided matching model of venture capital. The Journal of Finance, 62(6), 2725-2762.

Tam, O. K., & Tan, M. G. (2007). Ownership, governance and firm performance in China. Research in International Business and Finance, 21(3), 395-413.
Tian, X. (2016). The causes and consequences of venture capital stage financing. Journal of Financial Economics, 119(2), 393-415.
Tricker, R. I. (2015). Corporate Governance: Principles, Policies, and Practices. Oxford University Press, UK.
Wang, L., Wang, Y., & Lu, W. (2013). Does private equity investment improve listed company performance?—Empirical evidence from China. China Journal of Accounting Research, 6(2), 127-149.
Williams, J. B. (1938). The theory of investment value. Harvard University Press.
Wright, M., Pruthi, S., & Lockett, A. (2005). International venture capital research: From cross-country comparisons to crossing borders. International Journal of Management Reviews, 7(3), 135-165.
Wu, Y., Wang, L., & Wei, Y. (2013). Domestic capability and network linkages in China's innovative process. Research Policy, 42(3), 657-666.
Xue, L., & Larson, C. (2020). Made in China 2025: Innovation for upgrading manufacturing. In: H. Shiroyama et al. (eds), Science, Technology, and Innovation in the 21st Century Asia. Springer.
Yao, S., Ma, C., & He, W. P. (2013). Ownership structure and firm performance in China's manufacturing industry. Journal of Chinese Economic and Business Studies, 11(1), 75-89.
Zhang, C., Mao, D., & Wang, M. (2020). Role of venture capital in enterprise innovation under psychological capital and heterogeneity of entrepreneur capital. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.01704
Zhang, J., & Zhu, H. (2011). The performance of private equity-backed IPOs. Finance Research Letters, 8(3), 127-137.
Zhang, J., & Zhu, H. (2021). China's venture capital market. In Venture Capital in Asia (pp. 157-177). Palgrave Macmillan, Singapore.
Zhou, K. Z., Gao, G. Y., & Zhao, H. (2017). State Ownership and Firm Innovation in China: An Integrated View of Institutional and Efficiency Logics. Administrative Science Quarterly, 62(2), 375–404. http://www.jstor.org/stable/44508554
Zhou, K. Z., Li, C. B., Zhou, N., & Su, C. (2008). Market orientation, job satisfaction, product quality, and firm performance: Evidence from China. Strategic Management Journal, 29(9), 985-1000.