The Role of Competition in Private Enterprise and Its Effect on the Economic Growth of the Country: A Study on Private Enterprises in China

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ARTICLE INFO	ABSTRACT
Article type: Research Article **Article History:** Received 15 March 2025 Revised 10 June 2025 Accepted 30 September 2025 Published Online 20 February 2026 **Keywords:** Generalised method of moments, Competition, GDP growth, R&D expenditure, Firm performance.	This study investigates competition among private enterprises and whether competition positively affects China's economic performance. It uses a cross-sectional dataset of 500 firms collected over five years. The research uses the generalized method of moments (GMM) model to manage endogeneity and unobserved heterogeneity. The analysis focuses on essential factors, such as work output efficiency, cost recovery, market rivalry, innovation (proxied by research and development intensity), firm size (FS), firm age (FA), financial leverage (LEV), and economic growth rate. It has been observed that moderate market rivalry increases a company's productivity and creativity, while heavy competition can hinder its performance. Innovation usually results in greater productivity and economic growth. An increase in firm size and commitment time leads to higher productivity, but excessive debt leads to poorer performance. GDP growth is mainly driven by competition and innovation at the big-picture level. It points out that balanced competition, along with policies that support innovation, is necessary. They provide guidance to policy officials and CFOs on how to design companies for maximum advantage, support innovation, and achieve sustainability goals. Researchers are invited to examine differences by sector and region to increase the scope of their findings.

1. Introduction

Competition, as a factor contributing to the growth of any economy, has been of interest to economists and policymakers. Competition enhances efficiency, creativity, and achievable utilisation, improving productiveness and economic returns (Ahn, 2002; Caglar & Askin, 2023; Sahlberg, 2006). As for private business organisations, especially those in China's booming economy, the rivalry is key to their participation in national development. Looking at China, where the private sector contributes significantly to the national GDP, developing and understanding competition becomes highly important. When organisations operate and compete in new environments, the firm's capacity to develop and reinvent itself leads to success (Vanhaverbeke & Peeters, 2005). Furthermore, competition, firm performance, and macroeconomic factors provide significant information that could be used in understanding the impact of market structures on economic outcomes (Volberda et al., 2021).

China has undergone economic growth (EG) in the past three decades, starting with a small private sector that primarily manufactures bicycles. Today, it contributes over 60% of China's GDP and 80% of employment in urban areas (Liu, 2022; Liu, 2020; Wu et al., 2024). Such tremendous growth could largely be attributed to the forces that have made it mandatory for all enterprises to enhance efficiency and adopt best practices; that said, it is neither positive nor negative, implying that to understand how competition affects the market, it is necessary to examine sectors and regions in particular closely. Competitive forces in China encompass a narrow set of factors at the market and organisational levels, such as rules for business regulation and growth, changes in the market, and the particularities of a specific company (Yeo, 2022). As Baumol explained long ago, rivalry can inspire innovation and bring growth. Yet, an excessive level of competition tends to compartmentalise the market and reduce potential revenues, threatening sustainable development in the long run (Jansson, 2013). Understanding the factors and effects of balanced and efficient competition is also important for policymakers aiming to sustain China's growth path. Consequently, this research aims to investigate the place and impact of competition within private enterprises of China on its economy. To this end, this paper employs archival research to examine the effects of competition on economic performance based on data from 500 private enterprises in different industries. Specifically, it addresses the following research questions:

a. As firms competing in the industry strive to outperform each other, how does this affect the productivity and advancement of private enterprises?
b. What are the effects of competition at the enterprise level on macroeconomic growth?

This research seeks to present a systematic differential analysis of competition in a constantly emerging economy like China. The findings may help shape enterprises' management strategies and policymaking to encourage a fair competition environment for steady development.

2. Literature Review

It is generally acknowledged that competition is a significant force that has a positive influence on economic development, and investigations involving the concept stress the importance of competition for enhancing productivity and increasing innovative activities as valuable resources. The theoretical underpinnings of this relationship can be traced back to Teece (2014), where the author pointed out that for firms to survive, organisational pressures push for innovations and improvements in the efficiency of operations, which, in extension, impact economic development. Based on the premise of private businesses, competition can help firms enhance their technology and market positioning, which will enhance their economic returns.

2.1. The Role of Competition in Firm Performance

Competition enhances firms' operational performance and resource use efficiency. Varadarajan (2023), in his research, posited that competitiveness increases the intensity of rivalry, and he made the point that new technologies must be developed and implemented. Lax product market competition increases an organisation's incentive to decrease the level of X inefficiency, improve product quality, and decrease production costs, thereby improving profitability (Challoumis-Κωνσταντίνος Χαλλουμής, 2024). However, when the competition goes to excessive value, it leads to problems such as reduced profits and increased pressure on finance that hamper the organisation's future growth (Panjaitan et al., 2023). The theoretical framework and previous empirical research have established that competition

matters and interacts with the market structure and the industry's capabilities. Competition has also been intensified within the Chinese setting due to the increased establishment of private enterprises in the manufacturing and technological industry (Wen et al., 2022). The researchers also noted that organisations in competitive industries face the herculean task of managing their price pressures, thereby achieving GAAP profitability. At the same time, investigations also indicate that competition drives dynamic capabilities, enabling firms to cope with the existing dynamic environment (Pundziene et al., 2022).

2.2. Competition and Economic Development

Competition is also an important factor affecting economic growth at the macroeconomic level. Competitive markets effectively ensure the utilization of assets, optimize the use of machines, and undertake innovations that enhance the technological factor, which contributes to an increase in GDP (Surya et al., 2021). In emerging economies, such as China, competition among private enterprises is the primary factor that has led to the fast expansion of the economy. For instance, Wigger (2023) noted how competitive pressures in the Chinese economy have pushed industrial productivity and export performance to the desired level. However, competition is one of the most diverse factors contributing to or hindering economic growth. The failure in the market structure, specifically, may occur in industries with high fixed costs or barriers to entry (Bui & Lo, 2022). In such cases, it is sometimes difficult to support the company's functioning, which creates a tendency towards the concentration and narrowing of the industry range. The government must, therefore, provide competition while simultaneously ensuring that the market remains stable (Kanter, 2024).

2.3. Control Variables and Contextual Factor

Competition, firm performance, and economic growth are affected by various factors. Most studies show that the size and age of the firm often determine the ability of the firm to compete and be innovative (Aksar et al., 2024). Industry players agree that larger firms have the resources to fund R&D and respond to market pressures, while young firms exhibit greater dynamism. Leverage, which constitutes one of the measures of financial risk, also affects firms' capacity to deal with competition. Highly leveraged firms can sometimes be constrained in pursuing new growth opportunities or investing in new products (Javed et al., 2024). The other factor is the industry-specific context. Some industries are closer to competition and innovation than others; IT industries, such as electronics and pharmaceuticals, are closer to the ideal point than traditional industries, such as textiles (Andreoni et al., 2021). In China, government policies and market reforms have also helped determine the competitive environment (Long et al., 2020).

2.4. Gaps in the Literature

Although there is extensive literature on competition, much of it lacks concrete phenomena on how competition among private enterprises affects the national growth of any country, not to mention China. Previous analyses may consider the effects on the particular firm or industry level or the macroeconomic consequences, but few works have combined both views. This research proposal seeks to fill this gap by assessing the relationship between enterprise-level competition and its impact on the macroeconomy among 500 private enterprises in China.

2.5. Theoretical Framework

This research is based on two important theories. The theory of growth developed by Schumpeter points out that economic growth largely depends on innovation when there is competition (Aghion & Howitt, 1998; Gilbert, 2006). Seeking to stay competitive, companies focus on new ideas and advancements that enhance their productivity. This framework outlines the link between R&D investment and the successful performance of China's private enterprises, adding to China's GDP (Ziemnowicz, 2020).

Research on resources (resource-based view, or RBV) highlights that things such as firm's size and unique skills can help gain and keep a competitive edge over time (Assensoh-Kodua, 2019; Coates & McDermott, 2002). Big and seasoned businesses commonly have better resources, so they can thrive when facing competition and working on new technologies. This perspective supports the idea that

firm size and age serve as control variables for measuring productivity and economic outcomes. Therefore, the following hypotheses are proposed:

H1: Competition has a positive impact on the efficiency of private businesses.
H2: Competitive relationships between different private enterprises positively impact innovation capability.
H3: The interaction of competition at the enterprise level has a positive effect on China's economic development.

3. Methodology and Materials

Analytical and statistical approaches were employed, as the study utilizes data from 500 private enterprises in China from the years 2020 to 2024. The list of firms was created using stratified random sampling in the main industries (manufacturing, technology, services) to ensure that the results can be applied to a wider group. It allows the investigation of the impact of competition on firm performance and economic growth at both cross-sectional and time-series levels. In light of this, endogeneity concerns are comprehensively addressed by the freshness of the data used in the analysis, thereby producing reliable results. It mainly includes a snapshot of the balance sheet and operational data of 500 private enterprises collected from various sources, such as company reports, industrial databases, government publications, and more. GDP growth rates were obtained from the National Bureau of Statistics of China to measure the country's macroeconomic performance. The information comprises various industries, providing a cross-sectional perspective of the Chinese private sector.

3.1. Research Model

The research uses the estimates prepared by GMM primarily to manage endogeneity problems that result in uncontrollable characteristics and reverse causality. GMM is effectively applied when the system equation includes the lagged dependent variable as an instrument. Apart from using lagged variables to address endogeneity, GMM accounts for remaining firm differences through firm-specific effects and includes year dummies to capture significant changes in the economy (Javed & Qazi, 2024; Ullah et al., 2018). Following these steps makes the model more reliable as the economy of China rapidly changes.

$$FP_{i,t} = \beta_0 + \beta_1 ComInd_{i,t} + \beta_2 Industry\ Inno_{i,t} \sum_{i=1}^{j} \lambda_i Con_{i,t} + \mu_{i,t} \tag{1}$$

Here, $FP_{i,t}$ stands for firm performance, $ComInd_{i,t}$ represents competition index, $Industry\ Inn_{i,t}$ stands for industry innovation (which is calculated by research and development intensity), and the Con signifies control variables (including firm size, firm age, and leverage), and $\mu_{i,t}$ represents the error term. This model tests the direct effect of competition and innovation on firm performance while controlling for FS, LEV, and FA.

$$Growth_{i,t} = \beta_0 + \beta_1 ComInd_{i,t} + \beta_2 Industry\ Inno_{i,t} \sum_{i=1}^{j} \lambda_i Con_{i,t} + \mu_{i,t} \tag{2}$$

Here, $Growth_{i,t}$ stands for GDP growth, $ComInd_{i,t}$ represents the competition index, $Industry\ Inn_{i,t}$ signifies industry innovation (which is calculated by Research and development intensity), and the Con is for control variables (including firm size, firm age, and leverage), and $\mu_{i,t}$ represents the error term. This model tests the direct effect of competition and innovation on firm performance while controlling for FS, LEV, and FA.

3.2. Measurement of Variables

Competition is calculated with the help of Herfindahl Herfindahl-Hirschman and Lerner Index (Bos et al., 2017). Firm performance is measured based on output by the employee and new value-added (based on the return on assets) (Al-Matari et al., 2014). Innovation, is proxied by R&D intensity (R&D cost/sales revenue) and the number of patents (Balasubramanian & Sivadasan, 2011). Economic growth is based on yearly growth rates in GDP (Barro, 2003).

Control variables include engulf firm size (measured by the log of total assets), firm age, measures of leverage (i.e., the debt-to-equity ratio), and industry type.

4. Results and Analysis
4.1. Descriptive Statistics
The descriptive statistics for the key variables used in the study are as follows:

Table 1. Descriptive Statistics for the Key Variables

Variable	Obs	Mean	Standard Deviation	Min	Max
Productivity	2500	113.34	25.670	55.211	175.89
Profitability	2500	0.0861	0.0452	-0.024	0.2151
HHI	2500	0.3122	0.0891	0.1021	0.5484
R & D Int	2500	3.4221	1.1225	1.0521	7.8913
FS	2500	11.852	2.3427	5.4287	16.792
FA	2500	12.480	6.4223	3.1258	25.000
LEV	2500	1.3761	0.7926	0.0115	4.5365
IT	2500	—	—	—	—
GDP	2500	6.350	0.8245	4.8021	7.9092
Productivity = Output/Employee, Profitability = ROA, HHI = Competition Index, R&D Int = Innovation, FS = Firm Size, LEV = Leverage, FA = Firm Age, IT = Industrial Type					

The results drawn from the descriptive statistics of the variables analysed in this study are presented in Table 1. Mean and sample standard deviation for productivity, defined as the output per employee, are 113.34 and 25.67, respectively, with productivity having a coefficient of variation of 22.7, ranging from 55.21 to 175.89. Specifically, profitability in terms of ROA is slightly above average 0.0861 and does not differ significantly from the average (standard deviation 0.0452). Moreover, firms presented reasonable profitability ranging from -0.024 to 0.312. As the competition measure, the HHI has a mean of 0.3122, ranging from 0.1021 to 0.5484. Innovation, expressed through R&D intensity, has a mean of 3.4221 for firms with a standard deviation of 1.1225, and ranges from 1.0521 to 7.8913. The analyses of average firm size (measured by the log of total assets) reveals a mean of 11.852, and leverage (as measured by the debt–to–equity ratio) has a mean of 1.3761, helping to establish that various financial structures exist. FA is 12.48 years on average, with a maximum of 25 years. The cap of 25 years is possible because the study involved only private enterprises, most of which started operating after China's economic reforms in the late 20th century. Therefore, the dispositions of these post-1992 reforms fostered the penetration of private enterprises into the Chinese economy, thereby engendering a relatively young private sector relative to the SOEs. Finally, the mean GDP growth is 6.35%, and the standard deviation is 0.8245, as expected from China's sustained economic growth during the study period. The statistics provided below elucidate the diverse nature of Chinese private enterprises as well as their importance in competition and innovation in the Chinese economy.

4.2. Correlation Matrix
The correlation matrix below provides insight into the relationships between the variables:

Table 2. The Correlation Matrix

Variable	Productivity	Profitability	HHI	R&D intensity	FS	FA	LEV	GDP
Productivity	1.0000							
Profitability	0.5731**	1.000						
HHI	-0.424**	-0.398**	1.000					
R&D Int	0.4851**	0.3523**	-0.305*	1.000				
FS	0.3191**	0.2541**	-0.132*	0.1221*	1.000			
FA	0.1581**	0.1151*	0.0451	-0.0925	0.2761**	1.000		
LEV	-0.232**	-0.158**	0.1674**	-0.235**	0.2931**	0.0152	1.000	
GDP	0.4341**	0.3676**	-0.471**	0.5812**	0.1802**	0.201**	-0.121	1.000
Productivity = Output/Employee, Profitability = ROA, HHI = Competition Index, R&D Int = Innovation, FS = Firm Size, LEV = Leverage, FA = Firm Age, IT = Industrial Type **Significance Levels:** *$p < 0.05$, **$p < 0.01$								

The correlation matrix in Table 2 indicates the coefficients of the main factors discussed in the paper. The results suggest a positive correlation between efficiency and profitability, and a coefficient value of 0.5731, implying that efficiency can improve its operational effectiveness and drive financial performance. The level of competition shows an inverse relationship with productivity (-0.424, **$p < 0.01$) and profitability (-0.398, **$p < 0.01$). It suggests that increased competition generates improved firm performance as it promotes efficiency and healthy returns on capital invested. Focusing on the innovation as R&D intensity, we found that the change in innovation contributes to productivity (Coeff = 0.4851, **$p < 0.01$) and profitability (Coeff = 0.3523, **$p < 0.01$), indicating that innovation both drives productivity and finance performance. Contrary to expectations, the HHI is significantly but negatively related to R&D intensity (-0.305, *$p < 0.05$). Competitive pressures induce innovation. Employing firm size (FS) gives satisfactory positive coefficients with productivity equal to 0.3191 (**$p < 0.01$), and the profitability has a coefficient of 0.2541 (**$p < 0.01$) used to explain that large firm sizes have economies of scale.

However, while the FA demonstrates a positive insignificant relationship with productivity, with a correlation of 0.1581, *** $p < 0.01$, and a positive significant relationship with a profitability of 0.1151, * $p < 0.05$ indicates that older firms have a composite experience. LEV is found to have a negative relationship with productivity (-0.232, **$p < 0.01$) and profitability (-0.158, **$p < 0.01$), implying that an increased level of debt hinders firm performance. Labour productivity has a stronger and more significant positive association with GDP growth (coefficient=0.4341, $p < 0.01$) and net profit margin (coefficient=0.3676, $p < 0.01$), indicating how the macro environment affects firms. Furthermore, self-generated income has a positive relationship with GDP growth at 0.5812, **$p < 0.01$, implying that innovation is key to an economy's growth. In summary, the nature of competition, innovation firm characteristics, and the macroeconomic environment are intertwined in the matrix to create a useful compass to understand the forces that drive firm and economic performance.

4.3. Hypothesis Analysis
GMM Estimation Results
Table 3 presents the regression estimates for productivity (output per employee), competition, innovation, and firm characteristics. The results of studies using this particular model of order are rather encouraging, evidenced by the R-squared value of .54, meaning that the specified model accounts for 54% of the variation in productivity. Competition, which can be captured using the Herfindahl-Hirschman Index (HHI) measurement, has a significant negative effect on productivity, with a coefficient of –0.191 (*** $p < 0.01$), implying that increased competition leads to increased productivity, as firms reduce their losses through enhanced efficiency.

Table 3. Model 1: The Impact of Competition and Innovation on Firm Performance

Variables	Coefficient	Standard Error	t-Statistic	p-Value
Cont	12.611***	1.761	7.141	0.011
HHI	-0.191***	0.045	-4.71	0.021
R&D Int	0.432***	0.076	5.910	0.014
FS	0.102**	0.059	1.783	0.073
FA	0.085*	0.059	1.653	0.102
LEV	-0.112**	0.047	-2.32	0.021
L. Productivity	0.521***	0.033	13.80	0.000
AQ = Audit Quality, BS = Board Size, BI = Board Independence, OC = Ownership Concentration, FS = Firm Size, LEV = Leverage, PR = Profitability, L. productivity = Lagged Productivity				
N = 2500, R-squared = 0.54. **$p < 0.01$, *$p < 0.05$.				

An increase in the independent variable, R&D intensity, significantly and positively affects a firm's productivity levels, with a coefficient of 0.432 ($p < 0.01$); thus, innovation emerges as a key determinant of operational efficiency. Among the firm-specific variables, firm size (FS) has a positive relationship with productivity (≈ 0.102, $p < 0.05$), indicating that large firms benefit from advantages in experience, resources, and economies of scale.

FA has also a positive sign (0.085, *$p < 0.10$), though less significant, suggesting that the experience of the old firm is effectively utilised for gaining higher productivity. Liquidity (LEV) has a negative correlation with productivity (-0.112, ** $p < 0.01$), which implies that increased debt may

hamper firms' functionality due to reduced investment and focus on product development. The coefficient estimate for lagged productivity (L. Productivity) is both large (0.521) and statistically significant (**p < 0.01) to reinforce the temporal stability of productivity. This finding affirms that prior productivity considerably predicts present productivity and underlines the necessity of endless operations enhancement. These results support the significance of competition and innovation for increasing firm productivity and highlight the differences in productivity growth determined by firm-specific factors, namely size, age, and financial leverage. The results support the continued development of competition and acquiring freedom for private sector businesses in China.

4.4. Dependent Variable: GDP Growth

Table 4. Model 2: The Impact of Competition and Innovation on Economic Growth

Variables	Coefficient	Standard Error	t-Statistic	p-Value
Cont	4.743***	0.612	7.75	0.000
HHI	-0.121***	0.019	-6.37	0.000
R&D Int	0.329***	0.052	6.33	0.000
FS	0.051**	0.026	1.96	0.050
FA	0.038*	0.018	2.11	0.037
LEV	-0.078**	0.032	-2.44	0.015
L. GDP Gth	0.679***	0.031	21.87	0.000
AQ = Audit Quality, BS = Board Size, BI = Board Independence, OC = Ownership Concentration, FS = Firm Size, LEV = Leverage, PR = Profitability, L. GDP Gth = Lagged GDP Growth				
N = 2500, R-squared = 0.67. **p < 0.01, *p < 0.05.				

The regression results in Table 4 explain the effects of competition and innovation on China's GDP growth, controlling for factors such as capability, type, and previous growth performance of a firm. The result of the current model is a relatively good fit for the data, as evidenced by the R-squared of 0.67, which shows that the included variables can explain 67 percent of the variation in GDP growth. The competition measured by the Herfindahl-Hirschman Index (HHI) yields a negative coefficient of correlation at -0.121 (*** p < 0.01), implying that higher competition enhances economic growth through increased efficiency and innovative capacity among private enterprises. This aligns with theoretical frameworks suggesting that moderate competition fosters market activity and resource mobilization. The relevance of innovation to economic development is confirmed by its significant positive impact on GDP growth, with a coefficient of 0.329 (***p < 0.01), considering the intensity of innovations—specifically, their share in R&D.

This research findings suggest that further investments must be made in research and development to continue achieving growth in the business. Other variables also display consistent and highly significant correlations with GDP growth, which are firm-specific characteristics. Similarly, firm size (FS) > has a positive and significant effect on growth with coefficient of 0.051 and **p < 0.05, suggesting that economic development is fostered by large firms' scale economy and high output. FA also significantly and positively affects the growth index (FA = 0.038, *p < 0.05), and the analysis revealed that the establishment of firms helps stabilize and develop the economy. Nevertheless, the leverage (LEV) coefficient has a negative sign (-0.078, **p < 0.05), implying that a high level of debt may reduce firms' investment in growth. The coefficient for lagged GDP growth is statistically significant (L. GDP Gth = 0.679, ***p < 0.01), supporting the idea of the persistence of economic growth rates over time. This underscores the need to maintain the previous growth pace through policy and structurally consistent changes. Thus, the results reiterate that competition and innovation are multiplicative for economic growth in China, alongside firm characteristics such as size and age.

5. Discussion and Conclusion
The study suggests that the success and growth of firms, as well as the economy as a whole, are influenced by competition, innovation, and certain firm characteristics. In short, an average level of competition from the HHI argument helps companies become more efficient and develop new ideas, but when it is excessive, it may reduce their rewards and weaken their performance. When we measure innovation by the level of investment in research and development, it proves to be an important and

consistent factor in boosting productivity and economic growth. In most cases, larger and older firms are more successful due to their experience and access to greater resources, but higher levels of debt negatively impact companies' performance. Thus, the findings of this study provide valuable insights into the relationship between competition, innovation, and economic growth in China's private sector. The findings concur with previous research showing that competition (measured by HHI) has a significant negative effect on productivity and GDP growth, supporting the contention that moderate levels of competition lead to efficiency and innovation (Liu et al., 2022). It also implies that the best practice of competition encourages firm efficiency and the emergence of innovations, consistent with Jackson (2021) study, claiming that intensified competitiveness fosters creative destruction. Throughout our analysis, innovation (as proxied by R&D intensity) remains a robust positive determinate of both the firm-level productivity and GDP growth rate. This view follows earlier scholarly publications like Inekwe (2015), who posited that R&D procedures are critical to technological advancement and economic growth. This study shares this evidence with Szarowská (2018), affirming their proposition that R&D leads to greater competitive advantage and macroeconomic output. The strength of this relationship provides an important reinforcing of how innovation policies are instrumental in sustaining growth trajectories. The findings further affirm prior research on firm-specific factors, including firm size (FS) and firm age (FA). Production output by larger firms surpasses that of smaller firms, in accordance with the scale economies theory (Siddiqui et al., 2024). Similarly, the variable representing older firms has a positive, albeit negligible, effect, as research indicates that mature firms possess the resources and experience to navigate these environments effectively (Anderson & Eshima, 2013). However, consistent with Marchica and Mura (2010), LEV again shows a negative sign, implying that high indebtedness limits investment flexibility. Interestingly, the long-run autocorrelation of productivity and GDP growth remains significantly lagged, suggesting path dependency and economic memory, which means that policy and growth patterns cannot be easily reversed over time.

The research findings imply that competition and innovation are central factors that will determine the future performance and growth of Chinese firms and the economy. The study highlights that a competitive market structure, coupled with strong innovation activities, leads to improved productivity and growth of the macroeconomy. Nevertheless, the social cost of high leverage ratios underscores the need to enhance appropriate financial controls and policies to support sustainable business growth. A comparison of these results with previous research establishes the validity of the impacts of competition, innovation, and economic growth studied. Government policies regarding R&D promotion, moderate competition, and firm-specific issues, such as debt management constraints, are essential to sustaining the Chinese private sector's economic dynamism. This paper could encourage future research on the differences in these variables by industry and region to understand better how to fine-tune competition and innovation policies.

5.1. Implications of the Study
The findings of this research will have insightful implications for policymakers, business executives, and academics. This research calls for moderate competition to increase productivity and growth in the market. Competitive pressures should not be allowed to dampen innovation, but should be structured to challenge firms to achieve optimal resource utilisation, especially in research. Innovational intensity and contributions to productivity and GDP reinforce the need to support innovation through specific mechanisms, including tax credits, grants, and technology transfer. Managers can use these insights to plan for innovation investment while having cost control mechanisms in place to avoid the negative effects of high leverage on the firm's performance. Although this research examines Chinese private businesses, the results may be useful for countries such as India and Vietnam, which have growing numbers of private companies. However, generalizing to public member companies might not be accurate, since they might engage differently in the market due to certain policies and benefits the state provides. Additional research could lead to better knowledge by comparing both types of companies.

5.2. The Limitations and Future Research
The present study has some limitations which should be noted as follows: Firstly, the research data is only based on China's private enterprises, so there is a question of external validity regarding the

application of findings in other settings. The present study can be extended to other firms in emerging and developed economies to test the generalizability of these findings. Moreover, this paper does not look at industry-level characteristics and regional differences in the predictors of firms' performance. Subsequent research could analyse competition and innovation individually to focus more on single industries or regions. Finally, conducting qualitative data or using the longitudinal approach can broaden the understanding of the processes behind the effects found.

Moreover, the researchers rely on the HHI to measure the level of competition in the market. Although these numbers use precise boundaries, the situation changes in sectors regulated or modified by the government in China. Other studies could apply various forms of competition indices to see how they support the findings described here.

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