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# Patient Capital and New Quality Productive Forces in Manufacturing Firms: Evidence from China and the Moderating Effect of Media Attention

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## Abstract

**Currently, China's manufacturing industry is at a critical stage of transitioning to high-quality development, and the cultivation of "new quality productive forces" faces the contradiction between long investment cycles, high technical risks, and traditional capital's pursuit of short-term returns. To explore solutions to this challenge, this study aims to conduct an in-depth analysis of the specific impact of "patient capital" on the new quality productive forces of manufacturing enterprises, and further investigate the moderating role of media attention. This paper uses China A-share listed manufacturing companies from 2014 to 2022 as research samples, and employs empirical methods such as fixed effects models to systematically examine the relationship between patient capital and corporate new quality productive forces, as well as the specific impact of media attention on this relationship. The study finds that patient capital, with its long-term value orientation and tolerance for short-term fluctuations, can significantly enhance the level of new quality productive forces in manufacturing enterprises. Additionally, media attention plays a positive moderating role in this process. Higher media attention strengthens external governance through the mechanism of public opinion supervision, thereby further amplifying the enabling effect of patient capital on new quality productive forces. The study suggests that policymakers should actively guide long-term funds into the real economy, while encouraging the media to fulfill its functions as an information intermediary and supervisor, to jointly foster a market ecosystem that supports long-term innovation and development.**

## Keywords

**Patient Capital; New Quality Productive Forces; Manufacturing Firms; Media Attention.**

## 1. Introduction:

Under the wave of a new global technological revolution and industrial transformation, China's economy is transitioning from a phase of rapid growth to a stage of high-quality development. Against this backdrop, "new quality productive forces" has been proposed as a core strategic concept, representing an advanced form of productive forces dominated by technological innovation and moving away from traditional growth paths. The cultivation and development of new quality productive forces, particularly in manufacturing as a pillar of the national economy, are characterized by large investment scales, long return cycles, high technical risks, and strong future uncertainties-the "big, long, high, and difficult" features. This creates a profound inherent contradiction with the profit-seeking nature of traditional capital, which pursues short-term profits and avoids risks. In this context, patient capital, as a form of capital that emphasizes long-term value, tolerates short-term fluctuations, and actively participates in corporate governance, is becoming a key financial element to resolve this contradiction and empower the development of new quality productive forces (Deeg & Hardie, 2016; Raess,

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2024)[1,2]. Unlike "restless capital" or financial managementism that seeks rapid returns (Knafo & Dutta, 2016), patient capital provides long-term stable funding support, enabling enterprises to navigate the "valley of death" in technology R&D and commercialization, focusing on core technology breakthroughs and strategic innovation activities (Wang, Cheng, & Li, 2025)[3,4]. Wang, Ma, et al. (2025) further demonstrate that patient capital not only directly enhances corporate green innovation performance but also creates synergies with executives' environmental concerns, providing robust support for the green foundation of new quality productive forces[5]. However, existing research predominantly focuses on single-dimensional impacts-such as SME innovation performance (Wu et al., 2022) or supply chain resilience (Ren & Ren, 2025)-lacking direct empirical verification of how patient capital systematically influences the comprehensive concept of "new quality productive forces"[6,7].

In modern capital markets, media serves as a crucial information intermediary and external governance force, exerting profound influence on corporate behavior and investor decisions through its coverage (Mao & Shi, 2025)[9]. Media attention not only enhances corporate transparency but also imposes external constraints on capital allocation and efficiency via reputation mechanisms and public opinion pressure. As patient capital empowers new quality productive forces, what role does media attention play? Does it act as an amplifier for effective capital operation, or a potential source of market noise? This question warrants further exploration.

Based on this, this paper uses China A-share listed manufacturing companies from 2014 to 2022 as research samples, constructs a comprehensive evaluation index of new quality productive forces, and empirically tests the direct impact of patient capital on corporate new quality productive forces. Meanwhile, it innovatively introduces media attention as a moderating variable to explore whether the empowering effect of patient capital differs under different information environments.

## 2. Literature Review

### 2.1. Research on Patient Capital Patient

Capital typically denotes a form of capital that prioritizes long-term value creation over short-term high returns, and is willing to bear higher risks and longer investment cycles (Deeg & Hardie,2016)[1]. Unlike financial management approaches that emphasize quarterly profits, patient capital places greater emphasis on corporate sustainability and strategic potential (Knafo & Dutta, 2016)[3]. Academic research on patient capital has primarily focused on its origins and economic implications.

In terms of funding sources, alongside traditional long-term institutional investors, the state has played a pivotal role in mobilizing social capital and providing patient capital through government-guided funds (Huang & Zhang, 2023). Lin & Wang (2017), drawing on the perspective of New Structural Economics, argue that countries with long-term orientations can accumulate substantial patient capital, which constitutes their comparative advantage in infrastructure development and industrial upgrading.

In terms of economic consequences, first, patient capital serves as a "booster" for corporate innovation. Wu et al. (2022) found through research on SME board-listed companies that relational debt and other patient capital forms prove more effective than short-term capital in driving increased innovation investments, thereby enhancing corporate performance[6]. Wang, Cheng, & Li (2025) further confirmed that patient capital significantly promotes the formation of new quality productive forces by strengthening corporate dynamic capabilities. Second, patient capital acts as a "ballast" for corporate green transformation[4]. Wang, Ma, et al. (2025) discovered that patient capital provides long-term financial security, enabling companies to withstand high risks and extended return cycles during green innovation processes, thus

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significantly improving green innovation performance[5]. Finally, patient capital functions as a "stabilizer" for corporate risk resistance. Brill et al. (2023) pointed out in their housing market research that patient capital helps mitigate demand shocks and market fluctuations. Ren & Ren (2025) also found through manufacturing research that patient capital significantly enhances supply chain resilience by alleviating financing constraints, ensuring sustainable operations[13,7].

## 2.2. Research on New Quality Productive Forces in Enterprises.

new quality productive forces represents a qualitative leap in productivity evolution, constituting an advanced form of productivity that transcends traditional growth models and aligns with high-quality development requirements. Academic studies on this concept primarily focus on three dimensions: its conceptual characteristics, micro-level measurement systems, and driving mechanisms.

In terms of intrinsic characteristics, new quality productive forces has achieved a qualitative leap from factor-driven to innovation-driven development. Unlike traditional productivity models that over-rely on massive labor and capital inputs, new quality productive forces focuses on achieving substantial improvements in total factor productivity through revolutionary technological breakthroughs and innovative allocation of production factors. Liu & He (2024), examining industrial synergy and agglomeration, identified three core features of new quality productive forces: "high technology, high efficiency, and high quality." [14] This qualitative leap requires enterprises to not only pursue quantitative output growth but also emphasize deep integration of industrial and innovation chains through digitalization and intelligent technologies, fundamentally transforming value creation methods.

From a micro-level perspective, academia has developed a multi-dimensional evaluation system to scientifically quantify new quality productive forces at the enterprise level. Early studies predominantly used Total Factor Productivity (TFP) as a single proxy variable, yet this metric struggles to fully capture the multifaceted nature of new quality productive forces in terms of both "innovation" and "quality". Recent research has begun constructing more systematic comprehensive indicator systems. Scholars such as Wang, Cheng, & Li (2025) and Liu & He (2024) have developed micro-level measurement models for enterprises based on fundamental principles of Marxist political economy and modern management practices, incorporating three dimensions: laborers, means of labor, and objects of labor[4,14]. This multi-dimensional measurement approach enables more precise characterization of enterprises' actual productivity levels during the process of transforming traditional industries through new technologies and fostering emerging industries.

From the perspective of driving mechanisms, existing literature on the factors driving new quality productive forces has gradually shifted from a single technological perspective to a collaborative perspective integrating technology, finance, and industrial ecosystems. Liu & He (2024) found through empirical research that the synergistic agglomeration of manufacturing and modern service industries can significantly promote the formation of new quality productive forces by optimizing resource allocation and facilitating knowledge spillovers[14]. This deep integration between industries provides enterprises with abundant innovation scenarios and supporting infrastructure. Financial resources, as the lifeblood of the real economy, directly determine the cultivation speed of new quality productive forces through their allocation efficiency. Fu & Zhao (2025) demonstrated that green finance serves as a key external force in driving corporate new quality productive forces development by alleviating financing constraints, enhancing R&D intensity, and strengthening executives' environmental responsibility awareness[15]. Wang, Cheng, & Li (2025) emphasized the importance of corporate dynamic capabilities, pointing out that only through sustained technological

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accumulation and agile organizational transformation capabilities can enterprises convert external capital and technology into internal new quality productive forces[4].

## 2.3. Research on Media Attention

As a pivotal information intermediary and external watchdog in capital markets, the media has evolved from a mere information conduit into a substantive participant in corporate governance. Academic consensus holds that media attention not only reflects a company's visibility in public discourse, but also functions as an external governance mechanism capable of profoundly influencing corporate behavior and market responses through three key channels: information effects, governance effects, and emotional effects.

First, in terms of information effects, media effectively reduces market information asymmetry by mining and disseminating information. Particularly in complex strategic decision-making or highly specialized fields, in-depth media coverage helps investors accurately assess a company's true value and potential risks. Wang et al. (2024) found that public media and social media attention to carbon neutrality issues significantly influences investor sentiment, thereby affecting stock excess returns. This demonstrates that media coverage not only conveys fundamental information but also enhances capital market resource allocation efficiency by guiding market attention[8].

Secondly, in terms of governance effects, media supervision creates robust external pressure and reputation mechanisms. The intense media scrutiny acts as a "sword of Damocles" hanging over corporate executives, effectively curbing opportunistic behaviors and compelling companies to adopt more transparent and standardized decision-making. Mao & Shi (2025)'s latest research reveals that media coverage significantly boosts corporate cash dividend levels, particularly in private enterprises with weak internal governance, where media supervision serves as a "substitution effect" for governance mechanisms[9]. This external governance pressure guides companies to allocate resources toward long-term value-creation activities rather than short-term speculation.

Finally, media attention serves as a crucial catalyst for corporate sustainability. Zheng et al. (2024) investigated the role of media attention in corporate sustainability pathways, demonstrating that it functions as an external driver to enhance environmental and social responsibility, thereby strengthening long-term sustainability capabilities[10]. This further suggests that media attention may actively guide capital flows toward green and innovative sectors aligned with the new quality of productivity..

## 2.4. Literature Summary

In summary, existing literature provides a solid theoretical foundation for this study. First, research on patient capital has demonstrated its positive effects in promoting corporate innovation, sustainable development, and risk resilience. Notably, Wang, Ma et al. (2025) highlighted the pivotal role of patient capital in green innovation performance, offering theoretical support for its empowerment of new quality productive forces[5]. Second, studies on new quality productive forces clarify their core concepts of innovation-driven development and factor upgrading, underscoring the importance of financial support. Third, research on media attention reveals its critical role as an external governance mechanism in regulating corporate behavior and enhancing resource allocation efficiency.

However, existing research remains limited: the mechanism of action is unclear. While the pathways of patient capital have been extensively discussed, its interaction with external governance environments (e.g., media supervision) in the context of new quality productive forces remains undefined. This study makes two key contributions: First, it systematically examines the direct impact of patient capital on new quality productive forces, expanding the boundaries of interdisciplinary research. Second, it innovatively introduces media attention as

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a moderating variable, revealing the "amplifier" effect of information environments in the functioning of patient capital, thereby deepening our understanding of its empowerment mechanisms.

## 3. Theoretical Analysis and Hypothesis Formulation

### 3.1. The Impact of Patient Capital on New Quality Productive Forces in Manufacturing Enterprises

The development of new quality productive forces is highly dependent on enterprises' dynamic capabilities and sustained technological accumulation (Wang, Cheng, & Li, 2025)[4]. However, this process is typically characterized by high risks, long cycles, and significant uncertainties, which inherently conflict with the short-term return-seeking nature of traditional capital (Knafo & Dutta, 2016)[3]. In this context, patient capital, with its long-term orientation, emerges as a key enabler of new quality productive forces.

First, patient capital provides the material foundation for nurturing new quality productive forces by easing financing constraints. Manufacturing enterprises require sustained and substantial capital investment for technological upgrades. Wu et al. (2022) demonstrated that patient capital prefers supporting internal R&D investments over short-term arbitrage[6]. This long-term funding enables companies to take innovation risks and maintain continuous investment in core technology development.

Secondly, patient capital drives green transformation and structural upgrading by optimizing resource allocation. Lin & Wang (2017) demonstrated that long-term oriented capital can more effectively identify and invest in infrastructure and industries aligned with a nation's comparative advantages[12]. At the micro level, Wang, Ma et al. (2025) found that patient capital enables management to allocate resources to green technology sectors, overcoming short-term performance pressures[5]. This optimized resource allocation allows enterprises to focus on building green and intelligent production systems, which are core components of new quality productive forces.

Finally, patient capital functions as a stabilizer. When facing external shocks, enterprises supported by patient capital demonstrate greater resilience (Ren & Ren, 2025; Brill et al., 2023), ensuring strategic focus on human capital upgrading and technological accumulation, thereby enhancing total factor productivity[7,13]. Based on this, Hypothesis 1 is proposed: H1: Patient capital can significantly boost the new quality productive forces of manufacturing enterprises.

### 3.2. The Moderating Effect of Media Attention

While patient capital has the potential to drive long-term value creation, its effectiveness is significantly influenced by the external information environment. As an external governance mechanism, media can moderate the impact of patient capital on corporate behavior through the "information effect" and "reputation mechanism" (Mao & Shi, 2025)[9].

First, media coverage enhances the efficiency of patient capital allocation by reducing information asymmetry. The R&D process of new quality productive forces involves complex technical details. Through in-depth media reporting, companies can improve transparency, enabling patient capital holders (such as labor unions and long-term institutional investors) to accurately assess genuine innovation capabilities rather than being misled by superficial short-term performance (Raess, 2024)[2].

Second, media attention ensures capital shifts from speculative to real economy through enhanced external oversight. Mao & Shi (2025) highlight that media coverage exerts reputational constraints. Under intense media scrutiny, the costs for management to engage in inefficient investments or opportunistic behaviors with long-term capital rise significantly[9]. This external constraint compels management to allocate resources from patient capital to

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genuinely enhance core competitiveness and build new quality productive forces, thereby amplifying the positive effects of patient capital. Based on this, Hypothesis 2 (H2) proposes: Increased media attention positively moderates the role of patient capital in enhancing enterprises' new quality productive forces.

# 4. Research Design

## 4.1. Sample Useion and Data Sources

This study uses China A-share listed manufacturing enterprises from 2014 to 2022 as research samples. To ensure data quality, we conducted the following treatments: (1) Excluding ST, ST, and PT companies; (2) Excluding samples with missing key variables. Ultimately, we obtained 14,257 companies with annual observations. The data were sourced from Guotai An (CSMAR), Wind, and the China Research Data Service (CNRDS) database. To control for the impact of outliers, all continuous variables were censored at the 1% and 99% quantiles.

## 4.2. Variable Definitions

(1) Dependent Variable: new quality productive forces (Npro). Drawing on Wang, Cheng, & Li (2025)'s methodology for measuring new quality productive forces in manufacturing enterprises, this study constructs an indicator system based on the two-factor theory of productivity. The system comprises four key metrics: living labor, materialized labor, hard technology, and soft technology (see Table 1 for details)[4]. All data are standardized by multiplying the base figures by 1000.

**Table 1.** Indicator System for the new quality productive forces in Enterprises

| factor | Level 1 indicators | secondary indicator | Measurement |
|---|---|---|---|
| Labourer | active labor | The proportion of salaries allocated to R&D personnel | 26 |
| | | Proportion of R&D personnel | 2 |
| | | The proportion of highly educated individuals | 3 |
| | Object of labor | Proportion of Fixed Assets | 1 |
| | | Manufacturing Overhead Ratio | 1 |
| Means of production | hard technology | R&D expense to depreciation and amortization ratio | 24 |
| | | R&D expenditure to lease cost ratio | 13 |
| | | Percentage of direct investment in R&D expenses | 27 |
| | | the proportion of intangible assets | 1 |
| | Soft Technology | Total Asset Turnover | 1 |
| | | inverse of the equity multiplier | 1 |
| new quality productive forces | | | 100 |

(2) Explanatory variable: patience capital (PC).

Patience capital refers to capital that prioritizes long-term value investment and demonstrates greater tolerance for short-term performance fluctuations.Drawing on the research of Ren & Ren (2025) and Huang & Zhang (2023), this paper categorizes patience capital into two dimensions: equity and debt. Specifically, patience capital is defined as stable equity plus relational debt[7,11].

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1) Stable Equity: As the core explanatory variable in this study, we adopt the methodology of Ren & Ren (2025) and Huang & Zhang (2023)[7,11]. First, we calculate the annual average turnover rate of institutional investors within the sample period and categorize them into high, medium, and low tiers. The group with the lowest turnover rate is defined as stable institutional investors. The sum of their shareholding ratios is then calculated to serve as a measure of stable equity.

2) Relationship debt: it is measured by the ratio of long-term liabilities to total liabilities.

(3) Mediation Variable: Media Attention (Media). Drawing on Mao & Shi (2025)'s methodology, this study measures media attention by taking the natural logarithm of the sum of annual news media coverage for listed companies[9]. A higher coverage count indicates greater external public scrutiny pressure on the company, reflecting enhanced information transparency.

(4) Control Variables: A series of variables influencing corporate new quality productive forces and managerial behavior were useed, including: Company Size (Size): Natural logarithm of total assets; Financial Leverage (Lev): Ratio of total liabilities to total assets; Profitability (ROA): Ratio of net profit to total assets; Company Age (Age): Natural logarithm of the company's listing year plus 1; Equity Concentration (Top1): Shareholding ratio of the largest shareholder; Board Independence (Indep): Proportion of independent directors in the total board membership; Dual Position (Dual): Value set to 1 if the chairman and general manager are the same person, otherwise 0; Growth (Growth): Total asset growth rate. Additionally, this study controlled for industry (industry) and year (Year) fixed effects to absorb the impact of time-invariant industry characteristics and time-varying macroeconomic shocks on the results. The variable definition table is as follows:

**Table 2.** Definition of Variables

| Variable type | Variable name | Variable symbol | Indicator setting |
|---|---|---|---|
| Implicit variable | new quality productive forces | Npro | entropy method calculation |
| Independent variable | patient capital | Pc | As mentioned above: Stable equity + relational debt |
| | Proportion of relationship-based debt | Ra | ratio of bank long term loan to total debt |
| Moderator variable | Media attention | Media | This paper uses the total number of negative news reports of listed companies' network media to measure the media attention level of listed companies. |
| Control variable | financial leverage | lev | total liabilities to total assets ratio |
| | profitability | roa | Measured by the ratio of net profit to total assets |
| | Business operating year | age | years of listing |
| | company size | size | natural logarithm of total assets |
| | equity concentration | top1 | The proportion of shares held by the largest shareholder |
| | Independence of board of directors | indep | percentage of independent directors |
| | Combination of two positions | dual | The chairman serves as general manager (1), others as 0 |
| | Growth | growth | Total assets growth rate |
| | industry dummy variable | industry | industry fixed effect |
| | Year dummy variable | Year | year fixed effect |

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### 4.3. Model Construction

To test the hypotheses, we constructed the following stepwise regression model:
The benchmark model (H1 test) was defined as:

$$Npro_{i,t}=\alpha_0+\alpha_1 PC_{i,t}+\sum Controls_{i,t}+\mu_i+\lambda_t+\varepsilon_{i,t} \quad (1)$$

This study primarily examines the moderating effect of media attention on the benchmark model.

$$Myopia_{i,t} = \delta_0 + \delta_1 PC_{i,t} + \delta_2 Media_{i,t} + \delta_3 (PC_{i,t} \times Media_{i,t}) + \sum Controls_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t} \quad (2)$$

where PC denotes patient capital, Npro represents new quality productive forces, and Media indicates media attention. μi and λt denote industry and annual fixed effects respectively, while ε is the random error term.

## 5. Empirical Results and Discussion

### 5.1. Descriptive Statistical

Analysis Table 3 presents the descriptive statistics of key variables, with a sample size of 14,257 observations. First, the mean value of the dependent variable "new quality productive forces" is 5.342, with a median of 5.052. The close proximity between these values indicates a relatively even data distribution. The standard deviation of 2.070, combined with a minimum value of 1.602 and a maximum of 13.47, reveals significant disparities in new quality productive forces development levels across manufacturing enterprises, demonstrating a wide range and uneven distribution. This provides a solid data foundation for exploring its driving factors. Second, the core explanatory variable "patience capital" has a mean value of 0.08, indicating that only 8% of sample enterprises possess average patience capital levels. The median value of 0.039 is notably lower than the mean, suggesting that over half of the enterprises have patience capital ratios below 4%, reflecting a right-skewed distribution. The standard deviation of 0.103, with a maximum of 0.48 and a minimum of 0, highlights the extreme polarization in enterprise support levels. Some enterprises lack long-term capital support, while others possess substantial patience capital reserves. The moderating variable "media attention" shows a mean value of 3.798, standard deviation of 1.012, and a minimum value of 1.386, with a maximum of 6.767. Considering that the variable is the result of logarithmic processing, it shows that the degree of media attention to the sample enterprises fluctuates greatly, some enterprises are in the focus of public opinion, while some enterprises are less reported.

Regarding control variables, the mean financial leverage ratio of 0.427 indicates that the average debt-to-asset ratio of sample enterprises is approximately 42.7%, which falls within a reasonable range. However, the maximum value of 89.6% reveals that some companies face significant debt repayment pressures. The average return on total assets (ROA) of 0.039 suggests that manufacturing enterprises generally maintain acceptable profitability, though the minimum value of-0.229 indicates that a proportion of sample companies are operating at a loss. The average shareholding ratio of the largest shareholder (0.324) reflects the relatively concentrated equity structure characteristic of Chinese listed companies. The average proportion of independent directors (0.377) slightly exceeds the regulatory threshold of one-third, indicating that most companies only meet compliance standards regarding board independence. Other control variables such as company size, age, and growth potential all exhibit statistical characteristics within reasonable ranges without notable outliers, aligning with the general characteristics of Chinese manufacturing listed companies.

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**Table 3.** Descriptive Statistical Analysis Table

| Variable | N | Mean | SD | Min | p50 | Max |
|---|---|---|---|---|---|---|
| Npro | 14257 | 5.342 | 2.07 | 1.602 | 5.052 | 13.470 |
| Pc | 14257 | 0.080 | 0.103 | 0 | 0.039 | 0.480 |
| Media | 14257 | 3.798 | 1.012 | 1.386 | 3.714 | 6.767 |
| size | 14257 | 22.28 | 1.163 | 20.130 | 22.13 | 25.820 |
| lev | 14257 | 0.427 | 0.179 | 0.091 | 0.419 | 0.896 |
| indep | 14257 | 0.377 | 0.054 | 0.333 | 0.364 | 0.571 |
| top1 | 14257 | 0.324 | 0.138 | 0.088 | 0.301 | 0.697 |
| dual | 14257 | 0.31 | 0.462 | 0 | 0 | 1 |
| age | 14257 | 19.5 | 5.584 | 8 | 19 | 36 |
| roa | 14257 | 0.039 | 0.065 | -0.229 | 0.039 | 0.216 |
| growth | 14257 | 0.177 | 0.331 | -0.280 | 0.096 | 2.133 |

## 5.2. Benchmark Regression Analysis

**Table 4.** Benchmark Regression Analysis and Adjustment Variable Analysis Table

| | (1)Npro | (2)Npro | (3)Npro | (4)Npro | (5)Npro | (6)Npro | (7)Npro |
|---|---|---|---|---|---|---|---|
| Pc | 3.258*** | 3.041*** | 2.998*** | 2.898*** | 2.818*** | 2.715*** | 2.719*** |
| | (11.24) | (10.33) | (10.17) | (9.89) | (9.83) | (9.54) | (9.71) |
| Media | | | | | | | 0.158*** |
| | | | | | | | (3.63) |
| interact | | | | | | | 0.537* |
| | | | | | | | (1.85) |
| size | | 0.157*** | 0.173*** | 0.148*** | 0.130*** | 0.102*** | 0.047 |
| | | (4.08) | (4.41) | (3.79) | (3.34) | (2.62) | (1.18) |
| lev | | -1.003*** | -0.970*** | -0.788*** | -0.829*** | -0.640*** | -0.677*** |
| | | (-4.13) | (-3.98) | (-3.24) | (-3.53) | (-2.73) | (-2.89) |
| roa | | -1.697*** | -1.435*** | -1.491*** | -1.586*** | -1.624*** | 0.262 |
| | | (-3.28) | (-2.61) | (-2.75) | (-3.03) | (-3.15) | (0.43) |
| indep | | | 0.925 | 0.667 | 0.634 | 0.418 | 0.044 |
| | | | (1.41) | (1.03) | (1.02) | (0.68) | (0.17) |
| top1 | | | -0.430 | -0.296 | -0.134 | -0.022 | -0.099 |
| | | | (-1.58) | (-1.09) | (-0.51) | (-0.08) | (-1.50) |
| dual | | | -0.022 | -0.079 | -0.037 | -0.086 | -0.021*** |
| | | | (-0.33) | (-1.16) | (-0.55) | (-1.30) | (-3.21) |
| age | | | -0.013** | -0.027*** | -0.009 | -0.023*** | -1.550*** |
| | | | (-2.11) | (-3.97) | (-1.49) | (-3.40) | (-3.01) |
| growth | | | -0.089 | -0.064 | -0.131* | -0.104 | -0.103 |
| | | | (-1.25) | (-0.90) | (-1.88) | (-1.50) | (-1.49) |
| _cons | 5.082*** | 2.098*** | 1.793** | 2.618*** | 2.656*** | 3.524*** | 4.181*** |
| | (117.60) | (2.61) | (2.14) | (3.11) | (3.20) | (4.19) | (4.99) |
| Year | × | × | × | √ | × | √ | √ |
| Industry | × | × | × | × | √ | √ | √ |
| N | 14257 | 14257 | 14257 | 14257 | 14257 | 14257 | 14257 |
| R2 | 0.026 | 0.034 | 0.036 | 0.064 | 0.119 | 0.145 | 0.150 |
| adj.R2 | 0.026 | 0.034 | 0.036 | 0.063 | 0.117 | 0.143 | 0.147 |

Note: ***, ** and * represent the significance level of 1%, 5% and 10% respectively

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Table 4 presents the benchmark regression results on the impact of patient capital on enterprises' new quality productive forces. This study employs a stepwise regression approach, progressively incorporating control variables and fixed effects into the model to validate the robustness of research hypotheses.

Column (1) presents the simplified model containing only the core explanatory variable, patience capital. The results show a coefficient of 3.258 for patience capital, which remains significantly positive at the 1% level, indicating a significant positive correlation between patience capital and new quality productive forces in enterprises. Columns (2) and (3) progressively incorporate control variables at the enterprise level. After controlling for factors potentially affecting new quality productive forces such as company size, financial leverage, and profitability, the coefficients of patience capital remain significantly positive at the 1% level at 3.041,2.998, and 2.898 respectively, demonstrating that the positive relationship is not driven by omitted variables and exhibits robustness. Columns (4) to (6) further include industry fixed effects and year fixed effects. In the most comprehensive model (Column 6), the coefficient of patience capital (Pc) reaches 2.715, still remaining significantly positive at the 1% level. This strongly supports Hypothesis H1: Patience capital can significantly enhance new quality productive forces in manufacturing enterprises.

This is consistent with the theoretical expectation. By providing long-term stable financial support, optimizing corporate governance and resource allocation, patient capital provides a solid foundation for enterprises to carry out technological innovation and industrial upgrading, thus promoting the development of new quality productive forces.

## 5.3. Moderating Effect Analysis

To examine the moderating role of media attention in the relationship between patient capital and enterprise new quality productive forces, this study introduces media attention and its interaction term with patient capital into the baseline model. The regression results in Column (7) show that the coefficient of media attention itself is 0.158, which is significantly positive at the 1% level. This indicates that media attention itself serves as a positive factor in enhancing enterprise new quality productive forces, likely because media scrutiny pressure drives companies to prioritize technological innovation and long-term development. The interaction term coefficient between patient capital and media attention is 0.537, which is significantly positive at the 10% level. This confirms Hypothesis H2: Increased media attention can positively moderate (i.e., strengthen) the role of patient capital in enhancing enterprise new quality productive forces. The findings suggest that when enterprises receive more media attention, the empowering effect of patient capital becomes more pronounced. The underlying mechanism may be that media attention enhances information transparency, exerts external governance pressure, and amplifies corporate reputation, thereby creating a more favorable external environment for the effective operation of patient capital, thus "amplifying" its positive impact on new quality productive forces.

## 5.4. Robustness Testing

To ensure the reliability of the research conclusions, this study conducted a series of robustness tests. First, we tested the explanatory variable with a one-period lag. To mitigate potential reverse causality issues, we regressed the patient capital variable with a one-period lag (L_Pc). The results in Column (1) of Table 5 show that the coefficient of L_Pc remains significantly positive at the 1% level, indicating that the core conclusion is not caused by reverse causality. Second, we replaced the explanatory variable with the ratio of relational debt (Ra). The results in Column (2) of Table 5 show that the coefficient of Ra is 1.433, also remaining significantly positive at the 1% level, demonstrating that the research conclusions are independent of specific measurement methods. Finally, we adjusted for cluster standard errors by grouping errors at the industry level, considering that firms within the same industry may experience

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similar shocks. The results in Column (3) of Table 5 show that the coefficient of patient capital remains at 2.715 with unchanged significance levels, indicating that the conclusions remain robust after accounting for industry-level error correlations. In summary, multiple robustness tests support the core conclusion that patient capital significantly promotes new quality productive forces in enterprises.

**Table 5.** Robustness Test Table

| | (1)Npro | | (2)Npro | | (3)Npro |
|---|---|---|---|---|---|
| L_Pc | 2.924*** | Ra | 1.433*** | Pc(Cluster by industry) | 2.715*** |
| | (8.44) | | (6.85) | | (8.19) |
| size | 0.093** | size | 0.126*** | size | 0.102 |
| | (2.13) | | (3.19) | | (1.24) |
| lev | -0.718*** | lev | -0.683*** | lev | -0.640 |
| | (-2.69) | | (-2.87) | | (-1.52) |
| indep | 0.985 | indep | 0.455 | indep | 0.418 |
| | (1.39) | | (0.74) | | (0.67) |
| top1 | 0.357 | top1 | -0.090 | top1 | -0.022 |
| | (1.15) | | (-0.34) | | (-0.08) |
| dual | -0.051 | dual | -0.089 | dual | -0.086 |
| | (-0.68) | | (-1.34) | | (-1.04) |
| age | -0.021*** | age | -0.022*** | age | -0.023** |
| | (-2.79) | | (-3.31) | | (-2.10) |
| roa | -1.408*** | roa | -1.670*** | roa | -1.624** |
| | (-2.68) | | (-3.23) | | (-2.60) |
| growth | -0.085 | growth | -0.155** | growth | -0.104 |
| | (-1.05) | | (-2.24) | | (-1.34) |
| _cons | 3.465*** | _cons | 3.062*** | _cons | 3.524** |
| | (3.62) | | (3.60) | | (2.13) |
| Year | √ | | √ | | √ |
| Industry | √ | | √ | | √ |
| N | 10765 | N | 14257 | N | 14257 |
| R2 | 0.131 | R2 | 0.137 | R2 | 0.145 |
| adj.R2 | 0.127 | adj.R2 | 0.134 | adj.R2 | 0.143 |

Note: ***, ** and * represent the significance level of 1%, 5% and 10% respectively

## 6. Research Conclusion and Policy Implications

### 6.1. Research Conclusion

Based on data from China A-share listed manufacturing companies from 2014 to 2022, this paper empirically tests the impact of patient capital on enterprises 'new quality productive forces and explores the moderating role of media attention. The main research conclusions are as follows: Patient capital significantly promotes the development of enterprises' new quality productive forces. Whether it is equity-based or debt-based patient capital, its increase can significantly enhance enterprises 'living labor, materialized labor, and technological innovation levels, thereby driving the formation of new quality productive forces. This conclusion remains valid after a series of robustness tests, including lagging treatment, variable substitution, and adjustment of cluster standard errors, indicating that patient capital is a key financial factor in cultivating enterprises' new quality productive forces.

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Media attention positively moderates the enabling effect of patient capital. Research reveals that media coverage not only directly promotes new quality productive forces, but more importantly, significantly amplifies patient capital's positive impact on it. This demonstrates that an active and transparent external information environment serves as an "amplifier" for patient capital to maximize its effectiveness. The media's supervisory and reporting functions form an effective governance synergy with patient capital's long-term investments.

## 6.2. Policy Implications

Based on the aforementioned research findings, to better leverage patient capital in cultivating new quality productive forces, this paper proposes the following policy implications:

At the government level, optimize top-level design to foster a capital ecosystem that encourages "long-term capital and long-term investment." Strengthen policy guidance and incentives by leveraging tax benefits, risk compensation, and industrial guidance funds to encourage long-term capital such as social security funds, insurance funds, and pension funds to flow into the real economy, particularly strategic emerging industries and future industries. Improve multi-level capital markets by streamlining exit channels like IPOs and mergers and acquisitions, providing flexible and efficient exit pathways for patient capital to form a virtuous cycle of "fundraising, investing, managing, and exiting." Simultaneously, strengthen supervision of short-term speculative behaviors to create a stable market environment for long-term value investing. Enhance information infrastructure development to promote comprehensive and high-quality information disclosure by enterprises, especially technology companies, providing decision-making references for market participants, reducing information asymmetry, and thereby improving capital allocation efficiency.

At the corporate level, companies should strengthen their internal development and proactively engage with patient capital. By aligning long-term strategic development with patient capital's value orientation, enterprises should focus on core technology R&D and building sustainable competitiveness rather than chasing short-term financial metrics. Enhancing corporate governance and transparency, improving internal controls, and refining information disclosure quality are crucial. Proactive communication with investors helps clearly demonstrate a company's long-term growth potential and strategic roadmap, thereby increasing its appeal to patient capital. After securing patient capital, companies should strategically allocate it to innovation-driven initiatives-such as R&D, talent acquisition, and industrial upgrading-that foster new quality productive forces, transforming capital advantages into enduring competitive edges.

At the societal and media level, we should cultivate a positive public discourse environment and strengthen external governance. Professional and in-depth media coverage should be encouraged, with media outlets fulfilling their roles as information intermediaries and watchdogs. They must move beyond short-term market trends to provide objective, comprehensive reports on corporate technological innovation, long-term strategies, and corporate governance, thereby offering investors valuable insights and fostering a rational investment climate. Enhancing social oversight and investor education is crucial to guide the public and retail investors toward embracing long-term and value-based investment principles. It is essential to recognize the importance of media supervision in maintaining market fairness and promoting healthy corporate development, collectively building a social innovation culture that supports innovation, tolerates failure, and focuses on sustainable growth.

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