

The Impact of Management Highlights of Private Enterprises on the Government and the Market: An Empirical Study Taking Fuyao Group as an Example

Chuanye Liu*

Keuka College, 141 Central Avenue, Keuka Park, NY 14478, United States

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Under the framework of China's socialist market economy, this paper takes Fuyao Group as the core research object, using horizontal comparison with the state-owned China National Building Materials Group and vertical comparison with private enterprise Huawei, supplemented by qualitative and quantitative analysis. It explores the dual impacts of private enterprise management flexibility on policies and markets. The findings reveal that Fuyao's strengths in flexible decision-making, technological innovation and global layout enhance corporate competitiveness, assist government macro-control and drive market development. The study verifies that private enterprise management flexibility effectively supports government policy-making and boosts the socialist market economy with Chinese characteristics. It also confirms the institutional advantage of the coordinated development of public and private sectors, providing theoretical and practical references for optimizing government-enterprise relations and stimulating the vitality of the private economy.

Keywords: Private enterprises; Management and operation; Fuyao Group

Online publication: March 26, 2026

1. Introduction

Since China's reform and opening up, the private economy has evolved from a supplementary component to a key pillar of the national economy, powering growth, innovation, employment and fiscal revenue. As indicated by the All-China Federation of Industry and Commerce, the private sector now contributes more than 60% of GDP, over 70% of technological innovations, 80% of urban employment and 90% of enterprise numbers, embodying the improvement of the socialist market economy with Chinese characteristics. Fuyao Group, a global leader in automotive glass, has achieved remarkable international expansion within three decades, with a 34% global market share, exemplifying the dynamism of private enterprise governance. Synergy between state-owned and private enterprises further illustrates institutional strengths. Examining how private enterprise management shapes government and market interactions is therefore theoretically significant and practically imperative.

It has great theoretical and practical value. Theoretically, it can reveal the influence mechanism, verify the institutional complementarity between state-owned and private enterprises, and clarify the government-enterprise interaction

relationship. Practically, it provides references for the government's policy-making, suggestions for private enterprises' development, and ideas for promoting industrial chain synergy.

This paper uses comparative analysis, case study, and a combination of qualitative and quantitative methods. It compares Fuyao Group with China National Building Materials Group horizontally and with Huawei Technologies Co., Ltd. vertically. Taking Fuyao Group as a case, it analyzes its management characteristics and impact on the government and the market. With qualitative analysis of business and government-enterprise behaviors and quantitative data, the research's objectivity and persuasiveness are enhanced.

2. Research theory

2.1. Literature review

Domestic scholars have conducted in-depth studies on private enterprise management, government-enterprise relations and private economic development, achieving abundant results^[1]. Ji Daokui believes that the decision-making chain of private enterprises is shorter, property rights are clearer, and market sensitivity is higher. Their management flexibility constitutes the core competitiveness of private enterprises^[2]. Zhang Weiying holds that their market-oriented governance and incentive mechanisms boost resource allocation efficiency and internal innovation^[3]. Lin contend that private enterprises excel in operational efficiency and industrial technological upgrading in competitive sectors, while SOEs perform better in public and strategic fields^[4]. Liu and Yang's research found that operational flexibility can help private enterprises adjust their development strategies in a timely manner and achieve counter-cyclical growth^[5]. Wu et al. pointed out that this type of innovation is close to the market, has a fast trial-and-error speed, and a high conversion efficiency, and is more in line with the immediate market demands^[6].

Xie's research shows that private enterprises do not passively accept government policy control. Instead, they lay a solid practical basis for government policy-making through actual business operations such as tax contribution, employment absorption, technological innovation, and industrial upgrading^[7]. Zhou Li'an, from the perspective of government-enterprise collaboration, suggests that the government-business relationship with Chinese characteristics is characterized by "interactive win-win", and the government empowers the development of private enterprises through policy support and the optimization of the business environment^[8]. Yang Hefang pointed out that the promulgation of safeguard laws and regulations such as the Law on Promoting the Development of the Private Economy is a targeted institutional response issued by the government in response to the development demands of private enterprises^[9]. Cheng and Wang argue from the perspective of the institutional evolution of the private economy that the relationship between China's private enterprises and the government has undergone an evolution process of "regulation-support-coordination"^[10]. Xue and Liu conducted a study on private enterprises from the perspective of fiscal and taxation governance and found that the structural changes in the tax contributions of enterprises can directly reflect the upgrading of regional industries. They proposed that the government could formulate targeted industrial tax policies based on fiscal and tax data^[11].

Yang conducted research on the impact of private enterprises on market development and believed that private enterprises are the core subjects of market competition. Their growth and expansion can break market monopolies and fully stimulate market vitality^[12]. Fan's research shows that the technological innovation and industrial layout of private enterprises can improve the industrial chain and supply chain system and promote industrial upgrading^[13]. Through empirical research, Ren et al. found that the global layout of private enterprises can promote the deep integration of the domestic market and the international market^[14]. Liu and Kong pointed out from the perspective of modernizing the industrial chain that private enterprises play a core supporting role in the process of making up for the shortcomings, strengthening the weak points and extending the industrial chain^[15]. Huang et al. (2023) based on empirical analysis of big data pointed out that the market entry and exit behaviors of private enterprises are important manifestations of market self-regulation, and the full competition among private enterprises can promote the concentration of market resources towards efficient business entities^[16].

Current research generally acknowledges the advantages of the management and operation of private enterprises and

their important role in economic development. However, relevant research is limited: the specific impact mechanism of their management advantages on policies and market development remains underexplored, and empirical studies on single private enterprises with comparative analyses are scarce. Taking the Fuyao Group as a case, this paper makes up for the above research deficiencies and provides a supplement for related fields.

2.2. Relevant theories

Based on institutional, SWOT, Porter's Five Forces, New Institutional Economics, and collaborative governance theories, this paper analyzes private enterprise management characteristics and influence paths from multiple dimensions, combining classic theories with cutting-edge frameworks.

Institutional theory shows a two-way relationship between the institutional environment and enterprise behavior ^[17]. The SWOT theory, proposed by Andrews, clarifies an enterprise's internal and external environment by analyzing its strengths, weaknesses, opportunities, and threats to formulate strategies ^[18]. This paper analyzes the differences between Fuyao Group and China National Building Materials Group in the glass industry, providing an analytical framework for different-owned enterprises.

Porter's Five Forces theory, by Michael Porter, states that an industry's competitive landscape is determined by five forces ^[19]. This paper compares the five forces of competition between Fuyao Group and Huawei Technologies in their industries, revealing private enterprises' core competitiveness-building paths.

The new institutional economics theory, based on Coase and North's research, takes institutions as the core variable ^[20]. This paper analyzes how formal and informal institutions shape Fuyao Group's management and how the group's practices promote institutional optimization, deepening the institutional theory.

The theory of collaborative governance emphasizes multi-subject interaction for goal optimization ^[8]. This paper explores the interaction between Fuyao Group and the government, achieving a win-win situation.

The socialist market economy with Chinese characteristics integrates the "visible hand" and the "invisible hand". This paper analyzes private enterprises' development vitality in the market and the government's guiding and safeguarding role, confirming the superiority of the Chinese-characteristic socialist economic system.

2.3. Study the technical route

The study follows the sequence of "Literature review and theoretical basis - Analysis of Fuyao Group's management - Characteristics of private enterprises' operation and management through comparison - Paths of management models' impact on the market and government - Conclusions and recommendations" to systematically explore the value and impact of private enterprises' operation and management, and offer references for the high - quality development of the private economy.

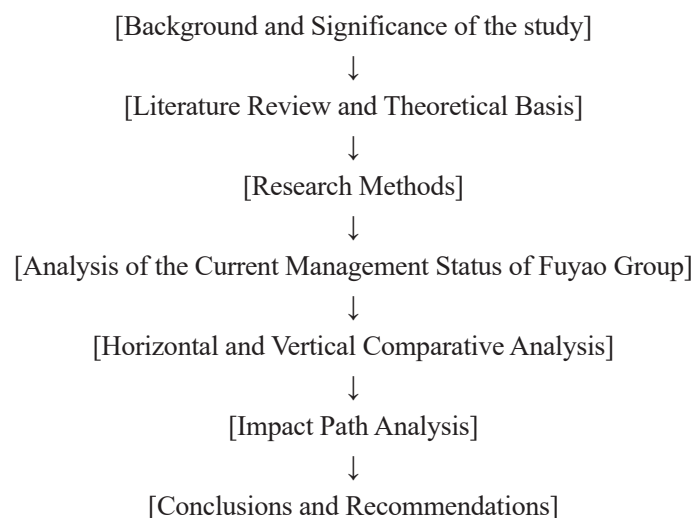


Figure 1. Research technology roadmap.

3. Analysis of the management status of Fuyao Glass Group

Fuyao Group was founded in Fuqing, Fujian Province, in 1987. Fuyao Group specializes in the R&D, production and sales of automotive and industrial glass, and is the world's largest supplier of automotive glass, serving renowned automakers including Tesla, Toyota, Volkswagen and BYD. In 2023, it achieved revenue of 33.15 billion yuan with R&D expenditure of 3.92 billion yuan, and employed nearly 30,000 people worldwide. After more than 30 years of development, it has formed a management model suited to the characteristics of private enterprises and industry rules. With distinctive strengths in decision-making, technological innovation and global layout, it has become a model for private enterprise management. The specific situation is as follows:

3.1. Decision-making mechanism: Agile decision-making under a flat structure

Fuyao Group, relying on private - enterprise governance advantages of clear property rights and well - defined rights and responsibilities, built a flat organizational management structure^[3]. It broke the traditional enterprise management predicament of too many levels and low decision - making efficiency, forming a “management → department → execution” three-level decision-making chain. Decision-making instructions can be quickly passed from management to execution, reducing communication costs and improving decision-making implementation efficiency. Compared with the seven-level approval and decision-making chain of China National Building Materials Group, Fuyao's flat structure is better adapted to market demands.

The agile decision-making mechanism gives Fuyao Group strong market response ability, which is the core support for it to cope with market changes^[5]. During the 2020 COVID-19 pandemic, Fuyao rapidly retrofitted a mask production line to ease local anti-epidemic supply shortages, demonstrating private enterprises' social responsibility and decision-making flexibility. In the new energy vehicle sector, Fuyao seized the demand for high-end automotive glass, took the lead in mass production and supply, and became a core high-end glass supplier, successfully capturing market opportunities.

3.2. Technological development: Breakthroughs in core technologies driven by research and development

Fuyao Group adheres to “innovation is the core driving force for enterprise development”, regards R&D investment as an important strategy, and forms an innovation closed loop of “continuous R&D - technological breakthrough - product upgrade”^[16]. Its R&D investment scale and proportion are at the leading level in the industry. In 2023, it spent 3.92 billion yuan on R&D, accounting for 11.8% of its revenue, far exceeding the industry average of 5.2%. The R&D investment scale has maintained double-digit growth for many consecutive years, laying a solid foundation for technological innovation^[21].

High and sustained R&D investment enables Fuyao Group to achieve breakthroughs in core technologies, break the international monopoly on high - end automotive glass technology, and form its own technology system^[13]. It has developed the world's first 5G antenna glass, integrated automotive glass with communication technology, and supported intelligent connected vehicle development. The AR - HUD glass addresses industry pain points and becomes a standard for new energy vehicles. A breakthrough in lightweight and energy - efficient glass helps automakers reduce weight and energy consumption. As of the end of 2023, it has over 800 invention patents. Technological innovation supports global competitiveness and drives the transformation from “product manufacturing” to “technology creation”^[21].

3.3. Industrial layout: Resource integration and standard output from a global perspective

In the context of economic globalization, Fuyao Group implements a “going global” strategy by setting up factories overseas to achieve “global resource allocation, local production and delivery”, avoiding trade barriers and enhancing competitiveness. As of 2023, it has established bases in 11 countries, with overseas revenue accounting for 32%, becoming a global enterprise^[14,21]. The Ohio factory is a landmark project, solving local employment and serving as a core base for North American automakers^[21].

Fuyao Group's global layout is not just “building factories overseas”, but the export of Chinese technology and standards. It led to the formulation of the “International Standard for Automotive Glass”, breaking the monopoly of European and American enterprises and promoting Chinese technology into the international standard ^[14]. Meanwhile, it brings China's management experience and advanced technology to the world, enhancing China's influence in global manufacturing while achieving its own globalization ^[15].

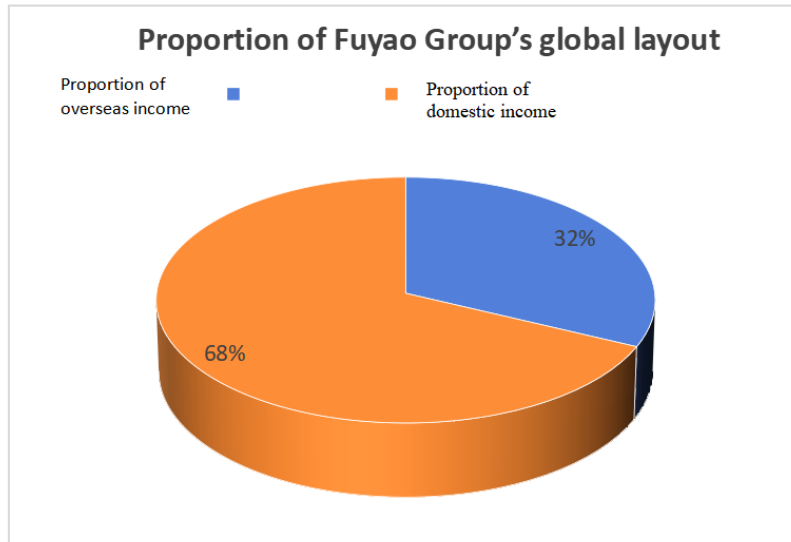


Figure 2. Proportion of Fuyao Group's global layout.

3.4. Resource allocation: Efficient operations under vertical integration

To enhance efficiency and reduce costs, Fuyao Group established a vertically integrated model, achieving a full industrial chain layout from upstream raw materials to downstream sales ^[19]. By laying out upstream production, it achieved over 90% self-sufficiency in raw materials, reducing risks and costs. By setting up factories near downstream automakers, it achieved local supply, cut logistics costs and improved service efficiency ^[21]. This model results from market competition response and institutional support.

This model drives Fuyao's efficient operation, leading to profitability and productivity while securing global cost and operational advantages, and providing references for domestic manufacturing optimization. In 2023, the company's gross profit margin far exceeded the industry average. After the transformation of Industry 4.0, the production efficiency increased by 30% and the defect rate decreased by 25%, which became the benchmark for manufacturing upgrading.

4. Analysis of the management characteristics of private enterprises in a horizontal and vertical comparison

4.1. Horizontal comparison: Fuyao Group vs. China National Building Materials Group (SWOT analysis)

China National Building Materials Group is a central enterprise managed by the State-owned Assets Supervision and Administration Commission of the State Council. It is the second largest in the world in terms of glass industry scale and undertakes strategic tasks, such as national new materials research and development and major project support ^[22,23]. Both operate in the glass industry but differ greatly in operation and management due to ownership differences, while forming a complementary relationship. Using SWOT and institutional theory, this paper analyzes their core differences and the differentiated effects of the institutional environment, as shown in **Table 1**.

Table 1. Comparison of the management of Fuyao Group and China National Building Materials Group based on SWOT theory and institutional theory

Comparison Dimensions	Fuyao Group	China National Building Materials Group
Decision-making mechanism	<p>Strengths: Three-level flat decision-making, high efficiency, quick market response, and clear private property rights</p> <p>Opportunities: Rapidly capture new energy vehicle and other emerging markets, and adjust product portfolio timely</p> <p>Institutional empowerment: Market-oriented system provides full decision-making autonomy</p>	<p>Strengths: Seven-level approval, standardized process, strong risk control, and strategic stability</p> <p>Weaknesses: Low decision-making efficiency and slow response to market opportunities</p> <p>Institutional empowerment: State-owned assets supervision ensures strategic stability and asset safety</p>
R&D-oriented	<p>Strengths: Market-oriented, applied R&D focus, fast technology transfer, strong market operation capability</p> <p>Threats: Applied R&D relies on core technologies, easily restricted by upstream bottlenecks</p> <p>Institutional empowerment: R&D expense deduction policy boosts applied research investment</p>	<p>Strengths: National strategic orientation, focus on basic & new materials R&D, undertaking key national projects, policy resource advantages</p> <p>Opportunities: Seize opportunities in new materials and high-end manufacturing backed by national strategies</p> <p>Institutional empowerment: National Key Tech Projects Fund and support basic R&D</p>
Resource allocation	<p>Advantages: Efficient market-oriented resource allocation to high-profit, high-growth businesses; vertical integration mitigates supply chain risks and improves self-sufficiency.</p> <p>Institutional empowerment: Market-dominant resource allocation ensures corporate autonomy</p>	<p>Strengths: Policy-driven resource allocation to public goods and strategic industries, emphasizing social benefits in line with SOE responsibilities.</p> <p>Opportunities: Access to low-cost resources and special funds supported by national policies.</p> <p>Institutional empowerment: State-owned capital optimization guides resources toward national strategic sectors.</p>
Market positioning	<p>Advantages: Focused on automotive glass competition, with rich experience in global markets.</p> <p>Opportunity: NEV development boosts high-end glass demand, expanding market space.</p> <p>Institutional empowerment: Fair competition regimes ensure market access rights.</p>	<p>Advantages: Covers basic and competitive fields, balances market benefits and national strategies, and safeguards industrial security.</p> <p>Threat: Diversified layout reduces competitiveness and profit efficiency in some businesses.</p> <p>Institutional empowerment: Industrial security system mandates supply guarantee responsibilities in basic areas.</p>
Development Goals	<p>Strengths: Pursues corporate value while fulfilling social responsibilities; flexible incentives and strong operational vitality.</p> <p>Disadvantages: Protected and guided by the Private Economy Promotion Law.</p> <p>Institutional empowerment: Protected and guided by the Private Economy Promotion Law.</p>	<p>Advantages: Ensures state-owned asset appreciation and industrial security; strong policy support and risk resistance.</p> <p>Disadvantages: Rigid incentive mechanism, insufficient internal vitality and market adaptability.</p> <p>Institutional empowerment: The SOE assessment system centers on state-owned asset preservation and appreciation.</p>

From the SWOT and institutional theory comparison, private enterprises' core internal advantages are decision-making flexibility, market orientation, and resource allocation efficiency. External opportunities are in a competitive field, market-demand upgrading, and the market-oriented institutional environment supports their advantage exertion. Disadvantages are weak risk, withstanding ability and limited policy and resource support. State-owned enterprises' core internal strengths are strategic soundness, fundamental R&D, and social responsibility. External opportunities rely

on national strategies and policy support, and relevant systems define their development direction. Weaknesses are low decision-making efficiency and rigid internal incentive mechanisms ^[22].

The two are complementary in the industrial chain, and this relationship is integrated at the institutional level. China National Building Materials Group's R&D in basic and new glass materials makes up for private enterprises' basic research weakness, while Fuyao Group's experience in automotive glass application and market competition makes up for some of China National Building Materials Group's market competitiveness shortage, promoting the glass industry's efficiency and technological iteration. Their coordinated development confirms the institutional complementarity of public and non - public economies and reflects the institutional environment's differentiated empowerment and coordinated guidance for different - ownership enterprises ^[17].

4.2. Longitudinal comparison: Fuyao Group vs. Huawei Technologies Co., LTD. (Based on Porter's Five Forces Theory analysis)

Huawei Technologies Co., Ltd. is a benchmark private enterprise in China's technology sector, focusing on communication technology research and development and application, with the largest number of 5G patents in the world and a 25% share of R&D investment ^[14]. Both enterprises have the common characteristics of private enterprises. Combined with the analysis of Porter's five forces competition pattern in the industry, the two have formed differentiated management strategies and core competitiveness, and the business strategy fits the core logic of the institutional theory that "enterprise behavior not only adapts to the institutional environment, but also shapes the institutional environment", as shown in **Table 2**.

Table 2. Comparison of the management of Fuyao Group and Huawei Technologies Co., Ltd. based on Porter's Five Forces Theory and Institutional Theory'

Comparison Dimensions	Fuyao Group	Huawei Technologies, LTD
Core Strengths	<p>Core strengths built on the industry five forces: Low upstream supplier bargaining power; Moderate threat from existing competitors; Focus on cost control and vertical integration to form strong industry competitive barriers; Institutional interaction: Corporate competitive advantages drive the improvement of the automotive glass market competition system</p>	<p>Form a core advantage based on the five forces of the industry 1. Low threat from potential entrants; 2. Low threat from substitutes; 3 Build core capabilities in technology research and development and ecosystem construction, and hold the core discourse power in the industry ^[3]; Institutional interaction: Corporate tech breakthroughs drive upgrading of telecom industry standards and systems.</p>
Research and development investment	<p>Fit the five forces of the industry: Automotive glass industry buyers have strong bargaining power (downstream automakers are large enterprises ^[21]), and applied technology research and development can rapidly increase product added value and reduce buyers' bargaining power; R&D investment accounted for 11.8% of revenue. Focus on application-oriented manufacturing technology, fast transformation and strong implementation ^[6]; Institutional empowerment: The manufacturing innovation support system provides policy guarantees for enterprise research and development</p>	<p>Fit the five forces pattern of the industry: The communication technology industry has a fast pace of technological iteration, intense competition among existing competitors, and basic technology research and development can build high barriers to suppress competitors; Research and development investment accounts for 25% of revenue, focusing on basic communication technology and cutting-edge technology, mastering core patents in the industry ^[14]; Institutional empowerment: The R&D incentive system for technology-based enterprises provides support for high-intensity R&D</p>

Internationalization strategy	<p>Adapt to the five forces pattern of the industry</p> <p>The automotive glass industry has high barriers to international trade (strong demand for localization in manufacturing), and the global layout of downstream automakers requires supporting enterprises to produce locally^[14]; Adopt a strategy of setting up factories overseas for local production to avoid trade barriers, reduce cooperation costs for downstream automakers, and weaken the bargaining power of buyers^[21];</p> <p>Institutional interaction: Corporate globalization practices promote the improvement of supporting systems for private enterprises' overseas investment</p>	<p>Fit the five forces pattern of the industry:</p> <p>The communication technology industry has a high degree of global market integration, and technical solutions need to be close to local market demands^[14]; Adopt a strategy of setting up R&D centers and market systems overseas, exporting technologies and solutions, building a global ecosystem, and enhancing stickiness to buyers^[14];</p> <p>Institutional interaction: Building a global ecosystem for enterprises promotes the development of international cooperation systems in the telecommunications industry</p>
Industrial model	<p>Fit the five forces pattern of the industry:</p> <p>The automotive glass industry has a low threat from substitutes (automotive glass is an essential component of the entire vehicle^[21]), and focusing on a single main business can create economies of scale, further reduce costs, and strengthen the price advantage; Adopt a vertical integration model, focus on the single main business of automotive glass, and refine and specialize the industrial chain^[21];</p> <p>Institutional empowerment: Modernized industrial chain systems guide enterprises to deep</p>	<p>Fit the five forces pattern of the industry:</p> <p>The communication technology industry has strong technological interconnections, and it is difficult for a single technology to form a competitive advantage. Industrial chain synergy can enhance overall competitiveness and fend off existing competitors; Adopt the industrial chain synergy model, build an ecosystem around core technologies, and diversify layouts in related fields^[14];</p> <p>Institutional empowerment: The digital economy development system supports enterprises in building industrial ecosystems</p>
Management model	<p>Fit the five forces pattern of the industry: The automotive glass industry is a manufacturing. Fine management can enhance production efficiency, reduce defect rate, and strengthen cost advantage^[2]; Adopt the family governance + professional manager model, focus on fine management, and ensure production and operation efficiency^[21];</p> <p>System adaptation: Private enterprise governance systems guarantee the choice of personalized management models for enterprises</p>	<p>Fit the five forces pattern of the industry:</p> <p>The communication technology industry is a technology-driven industry. Talent is the core production factor^[3]. Incentive mechanisms can fully mobilize talent enthusiasm and promote technological innovation. Adopt an employee shareholding + platform management model, focus on talent incentives and organizational vitality, and activate innovation drive^[14];</p> <p>Institutional adaptation: The equity incentive system for technology enterprises provides support for talent management in enterprises</p>

From the comparison of Porter's Five Forces Theory and institutional theory, private enterprises' management strategies in different industries are well-adapted to their respective five-forces competition patterns. This is the core logic for their market-oriented survival and shows management flexibility. Meanwhile, their business strategies and the institutional environment have a good interactive relationship: the institutional environment empowers and supports enterprises' management, and enterprises' practices promote the optimization of the institutional environment, which confirms the core connotation of institutional theory.

The common features of private enterprises' strategies reflect general ways to deal with industry competition. Under the guarantee of the institutional environment, they strengthen core capabilities to build barriers, adjust strategies to reduce the bargaining power of buyers and suppliers, and use a global layout to expand market space and diversify risks^[6,14].

The differentiating features reflect the industrial adaptability of private enterprises' management. Manufacturing private enterprises focus on cost control and vertical integration due to the industry's five forces characteristics, and relevant systems guarantee their models. Technology enterprises pay more attention to R&D, talent incentives and

ecosystem construction because of their industry's five forces features, and relevant systems support their development ^[19]. This adaptability allows private enterprises to excel in different industries and drive market diversification.

5. Analysis of the impact path of Fuyao Group's management on the market and the government

Based on the analysis and comparison of multiple theories, Fuyao's management model has promoted the core competitiveness, and has a two-way impact on market development and government policies, forming a closed loop of "enterprise capability export-market factor reorganization-government policy optimization". This is consistent with the "enterprise-institution" interaction in institutional theory, and reflects the institutional change explained by new institutional economics. On the other hand, the empowerment of the government system promotes the upgrading of enterprise management and realizes the coordinated development of enterprises, markets and governments. The specific impact paths are as follows:

5.1. Impact path on market development: Empowerment of market elements centered on enterprise capabilities and industrial upgrading

Fuyao Group, with core capabilities from internal management, acts on market elements and industrial development via four paths, promoting market efficiency and industrial structure upgrading, highlighting private enterprises' core role. From the institutional theory, this practice shapes the market's institutional environment; from the new institutional economics theory, its business practice reconstructs industry's informal institutions, improves formal ones, and optimizes the market institutional environment, with the two complementing each other to explain the enterprise's market influence.

Both theories hold that technological innovation drives institutional change. Fuyao advances industrial upgrading through R&D and market diffusion, with upgraded technical standards supporting emerging industries institutionally and technologically. They also explain the interplay between corporate globalization and institutional environments. Fuyao's global strategy allocates overseas resources, exports Chinese standards, promotes industrial globalization and international integration, enhances China's global institutional discourse, unifies domestic and foreign markets, and improves the institutional environment for Chinese enterprises in global governance.

5.2. Path of influence on the government: Policy support and institutional improvement based on corporate practice

Fuyao Group's management practice and business development, via four paths, policy formulation participation, governance data support, practical experience feedback, and institutional demand transmission, offer a basis and demand for government policy-making and institutional improvement. It promotes scientific, refined and market-oriented government regulation and verifies collaborative governance theory through government-enterprise two-way interaction, aligning with the "enterprise - government (system)" interaction logic.

Institutional theory and new institutional economics theory stress the importance of micro-enterprise data for government macro-institutional regulation. Fuyao Group's management results provide a quantitative basis for government regulation in data form, reduce institutional costs, and serve as the basis of regulatory practice. The two theories are consistent in the driving force of institutional change, believing that enterprise institutional demands are the core driving force for government institutional improvement ^[20].

As a private - enterprise representative, Fuyao Group's institutional demands, conveyed to the government through government-enterprise communication, are the common demands of private enterprises. They drive institutional change, promote the improvement of the private economy system, and create a fair and efficient institutional environment, confirming the two theories' core viewpoints ^[21].

Fuyao Group's institutional demands have spurred the government to strengthen intellectual property protection,

improve the financing support system, implement the “negative list” model, solve private-enterprise problems, and promote systematic improvement of the private economy system. The introduction of the Private Economy Promotion Law and other institutional guarantees is the government’s systematic response to private-enterprise institutional demands, establishing private-enterprise market position, providing stable institutional expectations, and reflecting the promoting effect of micro-enterprise institutional demands on government macro-institutional supply, which is a typical “government response to enterprise institutional demands” practice ^[21].

5.3. The closed-loop path of mutual empowerment between the government and enterprises: The synergy of the market and the government to promote the upgrading of enterprise management

Fuyao Group’s management impacts the market and government. In turn, the government promotes Fuyao Group’s management model upgrading and core capability improvement through institutional empowerment, policy support, and service guarantee. This forms a closed-loop path of “enterprise management influencing market and government. The upgraded management model further empowers market and government”, confirming the organic integration of the “visible hand” and the “invisible hand” under the socialist market economy system with Chinese characteristics ^[21]. This path aligns with the core logic of institutional theory and embodies the two-way interaction and co-evolution in new institutional economics theory, creating a virtuous cycle of institutional evolution ^[20].

The government’s institutional and policy empowerment drives Fuyao Group to optimize its management model and enhance competitiveness. Institutional guarantees help the flat decision-making mechanism, policy support deepens the R&D-driven innovation model, and service guarantees smooth the global layout. The upgraded management model impacts the market and government, achieving coordinated development of the enterprise, market, and government, highlighting the superiority of the socialist market economy system with Chinese characteristics and verifying the core logic of relevant theories in practice ^[21].

6. Conclusions and recommendations

6.1. Research conclusions

This paper takes the Fuyao Group as the research object. By analyzing its management status and comparing it with China National Building Materials Group and Huawei Technologies Co., LTD., based on multiple theories, the following conclusions are drawn.

Private enterprises have developed management models fitting their development and industry environment. Management flexibility and industry adaptability are their core competitiveness ^[2], and there’s a two - way adaptation between management models and the institutional environment. Fuyao Group, a typical private enterprise, has formed a management model of flat decision-making, R&D-driven innovation, vertical integration, and global layout. It adapts to the industry’s competition pattern and benefits from the institutional environment, while the enterprise’s practices promote institutional optimization.

The management model of private enterprises empowers market development through multi-path transmission. It promotes the reconstruction and upgrading of the market institutional environment, activates market competition, improves the industrial and supply chains, and promotes technological upgrading ^[20]. It also reconstructs informal systems and promotes the improvement of formal systems, enabling the market to play a decisive role in resource allocation ^[21].

Private enterprise management practices are an important micro-foundation for government institutional supply and policy-making. Fuyao Group provides support and a basis for government policy-making through four paths, promotes the change of the formal government system, and achieves a match between enterprise needs and government institutions, showing that private enterprises actively participate in policy optimization.

There is a closed-loop of mutual empowerment and co-evolution between private enterprises and the government: enterprise practice-market system-government system-enterprise upgrading. State-owned and private enterprises have a

complementary relationship in the industrial chain, demonstrating the advantages of the socialist market economy^[20]. This loop aligns with the core logic of institutional theory and the co-evolution connotation in new institutional economics. The synergy between Fuyao Group and China National Building Materials Group achieves an organic combination of “active government” and “effective market”^[4].

The comparison between Fuyao Group and Huawei demonstrates that the matching model of “industry characteristics-corporate strategy-institutional empowerment” formed by manufacturing and technology private enterprises enables private enterprises to become the core force driving market development.

6.2. Policy recommendations

Based on the above research conclusions, and supported by theories such as institutional theory, new institutional economics theory, SWOT theory, and Porter’s Five Forces theory, in order to further optimize the collaboration between the government and enterprises, stimulate the vitality of the private economy, release the management advantages of private enterprises, promote the coordinated development of the public and non-public economies, and contribute to the high-quality development of the socialist market economy with Chinese characteristics, The following policy recommendations are made.

Starting from institutional theory and the theory of new institutional economics, we will continue to improve core formal systems such as the “Law on Promoting the Private Economy”, strictly implement the negative list management model, reduce the pre-approval for the business decisions of private enterprises, and grant private enterprises greater autonomy in operation and management. Strengthen the construction of intellectual property protection systems, intensify the punishment for infringement, and reduce the institutional risks of technological innovation for private enterprises; Continue and optimize policies such as additional deductions for research and development expenses and tax preferences for high-tech enterprises, set differentiated incentive standards based on the industrial characteristics of manufacturing and technology private enterprises, and precisely reduce the research and development costs of enterprises; Improve the financing support system for private enterprises, alleviate the difficulties and high costs of financing for private enterprises through inclusive finance, supply chain finance innovation and credit system construction, and provide stable financial support for the technological innovation and global layout of private enterprises^[20].

Build a government-enterprise communication platform based on the theory of collaborative governance, widely listen to the development demands and practical experiences of private enterprises through forms such as industry research, policy pilots, and entrepreneur symposiums, enable leading private enterprises in the industry to deeply participate in the formulation process of industry standards and industrial policies, transform the micro-practice of enterprises into the macro-institutional supply of the government, and enhance the scientific and refined level of policies; Build a policy feedback platform for private enterprises, establish an evaluation mechanism for policy implementation effects, collect problems and suggestions from private enterprises in policy implementation in a timely manner, promote dynamic policy optimization, and break institutional path dependence; Improve the mechanism for private enterprises to participate in national strategies, encourage private enterprises to deeply integrate into national strategies such as industrial chain modernization, rural revitalization, and green development, and achieve mutual empowerment of enterprise development and institutional improvement in the implementation of strategies^[20].

Strengthen top-level design, guide state-owned enterprises and private enterprises to form division of labor and cooperation in the industrial chain based on SWOT theory, promote the transformation of state-owned enterprises’ achievements in basic research, new material development, major scientific research tasks and other fields to private enterprises, and make up for the insufficiency of basic research capabilities of private enterprises; Encourage private enterprises to share their experience in market competition, fine management, and applied technological innovation with state-owned enterprises to promote the reform of state-owned enterprises to enhance decision-making efficiency and market adaptability; Support the joint establishment of laboratories, industrial innovation centers and industrial chain collaboration platforms by state-owned enterprises and private enterprises, and establish a collaborative mechanism of

technology sharing, resource integration and benefit sharing to achieve a coordinated development pattern of “state-owned enterprises strengthening the foundation and private enterprises improving efficiency”, and enhance the overall competitiveness and risk-resistance capacity of the industry^[20].

Based on Porter’s Five Forces theory, analyze the competitive characteristics of private enterprises in different industries, provide service support such as industrial chain matching, intelligent manufacturing upgrading, and overseas factory establishment for manufacturing private enterprises, and help enterprises strengthen the advantages of vertical integration and reduce production costs; Provide high-end talent introduction and cultivation, intellectual property operation, international technology cooperation and other service support for technology private enterprises to help them build technological barriers and industrial ecosystems; Improve the all-round service system for private enterprises to “go global”, establish an international trade barrier response center, an overseas investment consultation platform, and provide supporting services such as consular protection, tax treaties, and cross-border laws to reduce the institutional costs of private enterprises’ global layout; In response to the common industry problem of talent shortage in high-end manufacturing, promote collaborative education among government, enterprises and schools, support the construction of specialized colleges and universities, improve the training, evaluation and incentive system for high-end manufacturing talents, and provide talent support for technological innovation of private enterprises^[19].

6.3. Research outlook

Taking Fuyao Group as a case study, this paper integrates institutional theory, new institutional economics, SWOT analysis and Porter’s Five Forces to systematically examine how the managerial strengths of private enterprises influence government governance and market operation. Although the study yields certain findings, it is subject to inherent limitations. Future research may expand the case coverage and conduct comparative analyses of private enterprises across various industries and development stages to enhance the generalizability of conclusions. Furthermore, empirical methods can be employed to quantify how operational flexibility affects policy efficiency and market performance, offering robust data support. In the context of global industrial restructuring, a deeper investigation into the internationalization pathways of private enterprise management and their impact on China’s market globalization is also warranted to formulate more targeted strategies for private-sector globalization.

Disclosure statement

The author declares no conflict of interest.

References

- [1] All-China Federation of Industry and Commerce, 2024, Report on the Development of Private Economy in China (2023–2024). China Industry and Commerce Press, Beijing.
- [2] Ji DK, 1995, The Theory of Ambiguous Property Rights in Transitional Economies. *Economic Research Journal*, (4): 42–50.
- [3] Zhang WY, 2000, Property Rights Arrangement and Internal Power Struggles in Firms. *Economic Research Journal*, (6): 41–50 + 78.
- [4] Lin YF, 2005, Firm Viability and State-Owned Enterprise Reform. *Development*, (8): 11–12.
- [5] Liu C, Yang JD, 2020, Commercial System Reform and Industrial Specialization. *China Industrial Economy*, (4): 135–153.
- [6] Wu F, Hu HZ, Lin HY, et al., 2021, Enterprise Digital Transformation and Capital Market Performance: Empirical Evidence from Stock Liquidity. *Management World*, 37(7): 130–144+10.
- [7] Xie YZ, 2026, Functional Positioning of Local Governments and Private Enterprises in the New National System. *Teaching*

and Research, (4): 51–62.

- [8] Zhou LA, 2021, Local Growth Coalition and Government-Business Relations with Chinese Characteristics. *Society*, 41(6): 1–40.
- [9] Yang WS, Fang Y, 2025, Safeguarding the Steady Progress of Chinese-Style Modernization with a High-Level Socialist Market Economic System. *Seeking Knowledge*, (4): 23–26.
- [10] Cheng BH, Wang SL, 2025, Changes in China's Private Economy Policies since the Reform and Opening-up: Process, Logic and Implications. *Humanities Magazine*, (7): 122-131.
- [11] Xue W, Liu J, 2020, The Impact of Tax Collection Pressure on Enterprise Tax Burden. *Tax Research*, (6): 104-109.
- [12] Yang ZY, 2026, Debate, Consensus and Development of the Private Economy. *Journal of Hebei University of Economics and Business*, 1–11.
- [13] Fan G, 2025, Developmental Resilience and Long-Term Growth of China's Economy. *New Finance Management*, (12): 34–36.
- [14] Ren GQ, Jing M, Jiao H, Xue KK, 2025, Can Chain-Leading State-Owned Enterprises Drive Innovation Improvement of Private Enterprises in Industrial Chains? From the Perspective of Industrial Chain Spillover Effect. *Chinese Journal of Management Science*, 1–16.
- [15] Liu ZB, Kong LC, 2021, From Segmentation to Integration: Resistance and Countermeasures in Promoting the Construction of a Unified Domestic Market. *China Industrial Economy*, (8): 20-36.
- [16] Huang B, Li HT, Liu JQ, et al., 2023, Digital Innovation and High-Quality Development of Chinese Enterprises: Evidence from Digital Patents of Enterprises. *Economic Research Journal*, 58(3): 97-115.
- [17] Scott W, 2010, *Institutions and Organizations*. Renmin University of China Press.
- [18] Andrews KR, David DK, 1987, *The concept of corporate strategy*. Homewood, IL: Irwin.
- [19] Porter ME, 1997, *Competitive strategy*. *Measuring Business Excellence*, 1(2): 12-17.
- [20] Coase RH, 1937, The nature of the firm. *Economica*, 4(16): 386-405.
- [21] North DC, 1990, *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- [22] Fuyao Glass Industry Group Co., Ltd., 2024, 2023 Annual Report. Fuyao Glass Industry Group Co., Ltd, Beijing.
- [23] State Council State-owned Assets Supervision and Administration Commission, 2023, Report on High-Quality Development of Central Enterprises (2023). China Economic Press, Beijing.
- [24] China National Building Materials Group Corporation, 2024, Social Responsibility Report 2023. China National Building Materials Group Corporation, Beijing.

Publisher's note

Whoice Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.