

Research on the Effect and Countermeasures of Fiscal Expenditure Promoting the Intelligent Transformation of Enterprises

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How to cite this paper: Xu, L. (2025). Research on the Effect and Countermeasures of Fiscal Expenditure Promoting the Intelligent Transformation of Enterprises. *Economics & Business Management*, 1(1), 355-361. ISSN Print: 3079-5214. ISSN Online: 3079-5222.

<https://doi.org/10.63313/EBM.9034>

Published: 2025-04-08

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Abstract

With the rapid development of global technology, intelligent transformation has become a key path for enterprises to enhance their competitiveness. As an important manufacturing base in China, Province A has made significant progress in intelligent transformation in recent years, but still faces many challenges. Fiscal expenditure, as an important means for the government to regulate the economy, plays a crucial role in promoting the intelligent transformation of enterprises. This article will take Province A as an example to explore in depth the impact mechanism and path of fiscal expenditure on the intelligent transformation of manufacturing industry. Through theoretical analysis, reveal the direct and indirect mechanisms of fiscal expenditure on the intelligent transformation of enterprises, and verify the promoting effect of fiscal expenditure on the intelligent transformation of enterprises.

Keywords

Fiscal Expenditure; Enterprise Transformation; Digital Transformation; Policy Effects; Manufacturing

1. Introduction

Against the backdrop of the accelerated restructuring of the global digital economy, China's manufacturing industry is facing the transformation dilemma of being "big but not strong". The 2023 "Overall Layout Plan for Digital China Construction" clearly states that fiscal policies need to accurately support the digital transformation of physical enterprises. Existing research mostly focuses on the single effect of tax incentives or special subsidies, lacking a systematic analysis of the heterogeneity of fiscal expenditure structure. The innovation of this article lies in distinguishing the differentiated impact of productive/consumptive fiscal expenditures; Revealing the transmission mechanism of "fiscal investment innovation intermediary transformation performance"; Build a framework for analyzing enterprise heterogeneity.

2. Theory of Enterprise Intelligence Transformation

The theory of enterprise intelligence transformation is an extremely important foundation for understanding how fiscal expenditure drives enterprises towards intelligence. In the current process of economic development, the intelligent transformation of enterprises is a key trend, which includes various changes and development situations. Research by Ouyang Lingmi and others has shown that digital transformation has a significant impact and mechanism on the high-quality development of enterprises. The intelligent transformation is precisely the state exhibited by enterprises as they deepen their development in the digital age, involving the upgrading of various aspects such as production, operation, and management towards intelligence.

The intelligent transformation of enterprises aims to use advanced information technologies such as artificial intelligence, big data, and the Internet of Things to achieve production automation, intelligent decision-making, and refined management. This can not only improve the production efficiency and reduce production costs of enterprises, but also enhance their ability to respond to market changes and improve competitiveness. From a theoretical perspective, the intelligent transformation of enterprises is an inevitable task for them to adapt to the development of the times and seek sustainable development. For example, in the manufacturing industry, intelligent transformation can achieve intelligent monitoring and optimization of production lines to improve product quality and production efficiency.

During the transformation period, enterprises face numerous challenges and opportunities. On the one hand, rapid technological updates and upgrades encourage enterprises to continuously invest resources in technology research and development and talent cultivation; On the other hand, successfully achieving intelligent transformation will bring new business models and market opportunities to enterprises. In its research, Bai Jing delved into the risk assessment of intelligent transformation in automotive manufacturing enterprises, which also indicates that enterprises need to scientifically evaluate risks in the process of intelligent transformation to ensure smooth progress. The theory of enterprise intelligence transformation provides a solid theoretical framework for exploring how fiscal expenditure promotes this process, which helps us better understand the mechanism and path selection of fiscal expenditure in enterprise intelligence transformation.

A deep understanding of the theory of enterprise intelligence transformation is of great significance for analyzing the effects of fiscal expenditure on promoting enterprise intelligence transformation and proposing targeted countermeasures and suggestions. It provides us with a theoretical basis for grasping the essence and laws of enterprise intelligence transformation, and lays the foundation for subsequent research on the relationship between fiscal expenditure and enterprise intelligence transformation.

3. Analysis of the Positive Effects of Enterprise Intelligence Transformation

Fiscal expenditure has a significant positive impact on the intelligent transformation of enterprises. In the current economic development pattern, the intelligent transformation of enterprises is an important way to enhance competitiveness and adapt to market changes, and fiscal expenditure plays a significant driving role in this process.

In terms of cost and efficiency, fiscal expenditure can effectively promote the cost reduction and production efficiency improvement of enterprises' intelligent transformation. As shown in the table data, the cost reduction rate of enterprise intelligent transformation has been increasing year by year from 2020 to 2025, reaching 5% in 2020 and 18% by 2025; The efficiency improvement rate of enterprises has also steadily increased, from 8% in 2020 to 25% in 2025. This means that fiscal expenditures are reduced through various means, such as subsidies and support for technology research and development, to alleviate the cost pressure of enterprise intelligent transformation, optimize production processes to improve production efficiency, and make enterprise operations and development more efficient.

In terms of innovation and competitiveness, the positive effect of fiscal expenditure on promoting the intelligent transformation of enterprises is also significant. Financial investment in providing enterprises with more resources for research and innovation can help enhance their innovation capabilities. The image data shows that in the proportion of positive effects of fiscal expenditure on promoting enterprise intelligent transformation, "enhancing innovation capability" accounts for 25%. Enhancing innovation capability enables enterprises to develop more competitive products and services, thereby enhancing their market competitiveness. The positive effect of "enhancing market competitiveness" accounting for 20% fully reflects the importance of fiscal expenditure in enhancing the market competitiveness of enterprises.

4. Analysis of the Negative Effects of Enterprise Intelligence Transformation

When fiscal expenditures promote the transformation of enterprises towards intelligence, there are many positive effects, but they can also have negative effects. In the long run, these negative impacts cannot be ignored and need to be analyzed carefully to find solutions.

In the transformation of enterprise intelligence, technological bottlenecks and network security risks are two prominent issues. With the advancement of intelligent transformation, enterprises' demand for advanced technology is constantly increasing, but the development and application of technology will not be smooth sailing. From the table data, it can be seen that technological bottlenecks are an important part of the negative impact in different years. Although their proportion

is decreasing, they still hinder the transformation of enterprises. In 2020, technological bottlenecks accounted for 30% of negative impact cases. At the same time, the intelligent transformation of enterprises heavily relies on information technology, which brings network security risks. From the image data, it can be seen that "network security risks" account for 25% of the negative effects of fiscal expenditure on promoting enterprise intelligence transformation, indicating that network security issues cannot be ignored during enterprise intelligence transformation. The high cost of transformation and talent shortage are also major challenges faced by fiscal expenditures in promoting the intelligent transformation of enterprises. In terms of cost, the intelligent transformation requires updating a large number of devices, purchasing software, upgrading systems, and other expenses, which puts a heavy burden on enterprises. From the table data, it can be seen that the proportion of negative effect types in each year has been increasing year by year, and the proportion of "high cost" has become the main negative factor, reaching 60% by 2024. This limits the pace of many companies' transformation and even makes some companies afraid to transform. The shortage of talent is also severe, and the intelligent transformation requires high-quality talents with professional knowledge and skills. However, there is a shortage of relevant talents in the market, and it is difficult for enterprises to recruit suitable talents, which seriously restricts the process of enterprise intelligent transformation.

The challenges in management collaboration cannot be ignored when promoting the intelligent transformation of enterprises through fiscal expenditures. The transformation of enterprise intelligence is not only a technological change, but also a comprehensive reform in management concepts, organizational structure, and other aspects. However, in actual transformation, enterprises often fail to effectively coordinate various departments, resulting in problems such as poor information flow and low work efficiency. This affects the effectiveness of intelligent transformation and increases operational costs. The negative effects of fiscal expenditure in promoting the intelligent transformation of enterprises are multifaceted. Only by deeply understanding and effectively addressing these issues can we better promote the healthy development of enterprise intelligent transformation.

5. Research Conclusion

This study focuses on the impact of fiscal expenditure on the intelligent transformation of enterprises and corresponding strategies, and has drawn some important conclusions through in-depth exploration. Fiscal expenditure has multiple positive impacts in promoting the intelligent transformation of enterprises. From a theoretical perspective, the relevant theories of fiscal expenditure provide strong evidence for its role in the intelligent transformation of enterprises. Reasonable arrangement of fiscal expenditures can guide various resources to gather towards the direction of intelligent transformation, provide important support such as funds and

technology for enterprises, and help them overcome many bottleneck problems encountered during the transformation period. For example, some regions use fiscal subsidies to incentivize enterprises to purchase advanced intelligent production equipment, which improves production efficiency and product quality, and enhances the competitiveness of enterprises in the market.

However, fiscal expenditures also have negative effects in promoting the intelligent transformation of enterprises. In practical operation, some fiscal funds have not been accurately aligned with the needs of enterprises, resulting in resource waste. Some companies blindly follow the trend of transformation in order to obtain financial subsidies, but lack corresponding technical and talent reserves, resulting in poor transformation results. This indicates that more scientific planning and precise execution of fiscal expenditures are necessary in the implementation process to avoid negative effects.

There are many factors that affect the effectiveness of fiscal expenditure in promoting the intelligent transformation of enterprises, and internal and external factors are interrelated. In terms of internal factors, the management level and innovation ability of the enterprise itself are crucial to the transformation effect. Enterprises with poor management find it difficult to effectively integrate financial support to bring resources, and their innovation capabilities are insufficient, so they cannot fully utilize financial funds to carry out intelligent technology research and development. External factors such as market environment and policy stability can also affect the transformation process. An unstable policy environment can make companies hesitant about transformation and thus reduce the effectiveness of fiscal expenditures.

Overall, promoting the intelligent transformation of enterprises through fiscal expenditure is a complex system engineering that presents both opportunities and challenges. In future development, it is necessary to fully recognize the coexistence of positive and negative effects, conduct in-depth analysis of internal and external influencing factors, and formulate targeted strategies in order to better play the role of fiscal expenditure in the intelligent transformation of enterprises and promote the achievement of high-quality development goals.

6. Suggestions for countermeasures

Fiscal expenditure has a significant impact on the intelligent transformation of enterprises. Based on this, corresponding countermeasures and suggestions are proposed with the aim of better promoting the intelligent transformation process of enterprises through fiscal expenditure.

From an internal perspective, companies need to deepen their understanding of intelligent transformation and make good plans. Enterprises must be aware that intelligent transformation is a necessary choice to adapt to market competition and industry development trends. Develop a reasonable and scientific transformation

strategy with the support of fiscal expenditure, clarify transformation goals, approaches, and steps. And increase investment in research and development to enhance independent innovation capabilities, cultivate and attract high-quality technical and management talents to provide solid support in terms of talent and technology for intelligent transformation. Fiscal expenditure can incentivize enterprises to increase research and development investment and improve innovation capabilities through the establishment of special subsidies, tax incentives, and other means.

From external factors, the government needs to optimize the structure and methods of fiscal expenditure. Firstly, allocate fiscal funds reasonably and increase investment in key areas of enterprise intelligence transformation, such as research and application of cutting-edge technologies such as artificial intelligence, big data, and the Internet of Things. Secondly, innovative fiscal expenditure methods such as adopting the public-private partnership (PPP) model to attract more social capital to participate in enterprise intelligent transformation projects and broaden funding sources. In addition, the government needs to improve relevant policies and regulations to create a fair competition market environment and strengthen intellectual property protection to create favorable external conditions for the intelligent transformation of enterprises.

The promotion of intelligent transformation of enterprises through fiscal expenditure is a systematic project that requires joint efforts from both enterprises themselves and the government. Enterprises should actively utilize fiscal support policies to enhance their intelligent transformation capabilities; The government should play a guiding and supportive role in optimizing fiscal expenditures and improving the policy environment. Collaborative cooperation between both parties can promote better results in the intelligent transformation of enterprises and drive high-quality economic development.

Acknowledgements

Funded by the Innovation and Entrepreneurship Training Program for College Students of Anhui University of Finance and Economics (S202410378582)

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