A Brief Discussion on the Impact of Tax Incentive Policies on the Digital Transformation of Manufacturing Enterprises

Hongtian Sun

Anhui University, Hefei, China

799791168@qq.com

Abstract. This paper takes domestic manufacturing enterprises as the research object and studies the impact mechanism and action path of tax incentive policies on the digital transformation of manufacturing enterprises. The study finds that tax incentive policies can promote the digital transformation of manufacturing enterprises through two action paths: alleviating financial pressure on enterprises and enhancing their innovation capabilities. Based on this, the paper proposes relevant policy recommendations.

Keywords: Preferential Tax Policies; Manufacturing Industry; Digital Transformation.

1 Introduction

The rapid development of new-generation digital technologies has profoundly transformed various aspects of the Chinese economy, prompting governments at all levels to adopt corresponding measures to vigorously promote the deep integration of digital technologies with the real economy. Enterprises are the mainstay of the market economy, and their digital transformation represents a significant milestone in the integration of new-generation information technologies with the real economy. It is crucial for driving industrial digitization and serves as a vital engine for China to achieve economic structural transformation [1]. Digital transformation has become an inevitable path for enterprises to enhance quality and efficiency. However, the process of digital transformation is characterized by high risks and uncertain return on investment.

Manufacturing, as a vital segment of the real economy, plays a pivotal role in boosting China's real economy and achieving high-quality economic development in the future. Against this backdrop, governments worldwide have introduced policies to encourage enterprises to accelerate their digital transformation, thereby enhancing their competitiveness and innovation capabilities.

Tax incentives, as one of the critical means for governments to promote enterprises' digital transformation, are increasingly influencing enterprises. Therefore, this research topic aims to delve deeply into and analyze the mechanism and effects of tax incentives

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on the digital transformation of manufacturing enterprises, providing theoretical support for governments to formulate more precise and effective policies. Simultaneously, it offers insights for enterprises to formulate digital transformation strategies.

2 Research Significance

2.1 Theoretical Significance

This research deepens the theoretical application of tax incentive policies, enriching the theoretical study of digital transformation and expanding the breadth and depth of interdisciplinary research. By delving into the specific mechanisms through which tax incentive policies function in the digital transformation process of manufacturing enterprises, this study not only considers the direct effects of the policies themselves but also examines their interactions with internal corporate decisions, market environments, and external economic factors.

2.2 Practical Significance

This research aims to guide the practice of digital transformation in manufacturing enterprises, optimize tax incentive policies to promote enterprise development, drive high-quality development and industrial upgrading of the manufacturing sector, and facilitate economic transformation and upgrading for sustainable development [2]. This study will uncover how tax incentives influence manufacturing enterprises' decisions, processes, and outcomes of digital transformation, providing specific practical guidance for them to formulate digital transformation strategies. By assessing the impact of tax incentive policies on the digital transformation of manufacturing enterprises, this study can identify the problems and shortcomings of the policies, providing empirical support for governments to optimize tax incentive policies.

3 Current Research Status and Development Trends at Home and Abroad

3.1 Current Research Status at Home and Abroad

This aligns with China's development strategy and meets the requirements of the times for the transformation and development of its manufacturing sector. Since the reform and opening-up, China's economy has achieved leapfrog development, and the manufacturing industry has also flourished. However, in recent years, with changes in the economic situation and China's development needs, the manufacturing industry is facing challenges of transformation. Both macro and micro challenges necessitate the transformation and development of the manufacturing industry, and digital transformation is currently one of the optimal paths to choose [3].

Measurement of Tax Incentives and Manufacturing Digital Transformation. In fo reign countries, research on digital transformation and tax incentive policies has relati vely matured. Foreign scholars have explored the impact of tax incentive policies on e nterprises' digital transformation from various perspectives. They have not only focuse d on the influence of tax incentives on enterprises' R&D investment and innovation ca pabilities but also delved into the synergies among policy instruments and how these i nstruments collectively drive the digital transformation of manufacturing enterprises [4].

In China, with the advancement of the "Digital China" strategy, digital transformation has become a crucial direction for enterprise development. In recent years, domestic scholars have conducted in-depth research on the relationship between tax incentives and the digital transformation of manufacturing enterprises. They generally agree that tax incentives can significantly reduce enterprises' R&D costs, thereby enhancing their innovation capabilities and market competitiveness. This plays a positive role in promoting the digital transformation of manufacturing enterprises.

Factors Influencing the Digital Transformation of Manufacturing. Driven by technological and value forces, enterprises have embarked on digital transformation. Based on research using data published by the Ministry of Industry and Information Technology of China, Wu Fei et al. [5] found that the overall digital transformation of Chinese enterprises is still at a relatively preliminary stage. Various factors hinder and influence the digital transformation of manufacturing enterprises, which can be analyzed from both internal and external perspectives.

Internal Influencing Factors. The internal factors influencing the digital transformation of the manufacturing industry mainly include research and development (R&D) investment, human capital, and enterprise size.

In terms of R&D investment, it has always been the focus of digital transformation in the manufacturing industry and a key area of research for scholars. Xia Weili and Zhong Pei [6] and He Qiang and Chen Song [7] respectively verified that R&D investment helps enhance the competitiveness of Chinese manufacturing enterprises.

Regarding human capital, the digital transformation of manufacturing enterprises cannot be achieved without the support of highly skilled talents. Cui Lingyun [8] analyzed survey data from the World Bank and found that improving employee education effectively enhances manufacturing productivity, thereby influencing the direction of enterprises' future transformation and development.

In terms of enterprise size, Chen Ying [9] believes that as enterprises grow larger, they will have stronger financial resources and superior technical capabilities, which will increase their utilization of new technologies and accelerate the progress of digital transformation.

External Influencing Factors. External influencing factors include fiscal and taxation policies, as well as the business environment.

In terms of fiscal and taxation policies, both government tax incentives and financial subsidies play crucial roles in the process of enterprise transformation. Guo Jian [10]

believes that taxation can facilitate the transformation and upgrading of the manufacturing industry through various channels such as promoting innovation, driving cluster development, and encouraging mergers and acquisitions.

Regarding the business environment, Hu Jun [11] suggests that with the continuous development of the internet, the level of regional internet development significantly and positively affects the transformation and development of the manufacturing industry. However, the degree of influence follows an inverted "U"-shaped curve, meaning that after reaching a certain level, the development of the internet may instead inhibit the transformation and development of the manufacturing industry. Yu Wenchao et al. [12] argue that changes in the business environment will increase unnecessary expenditures for enterprises, thereby creating a crowding-out effect on their limited resources.

The Mechanism of Tax Incentives on the Digital Transformation of the Manufacturing Industry. The policy effects of tax incentives on the digital transformation of manufacturing enterprises can be studied from perspectives such as promoting effects and inhibiting effects.

The "Promotion Theory" of Tax Incentive Effects. The promotional effect of preferential tax policies on the digital transformation of manufacturing enterprises is mainly reflected in their ability to enhance enterprises' R&D investment and human capital investment [13]. Increasing R&D and human capital investment by manufacturing enterprises will significantly elevate the degree of their digital transformation. The mechanism by which tax incentives influence the digital transformation of the manufacturing industry is by intensifying tax relief measures, thereby encouraging enterprises to increase their R&D and human capital investment, ultimately leading to an improvement in the digital transformation capabilities of manufacturing enterprises [3].

The "Inhibition Theory" of Tax Incentive Effects. Currently, no scholars have proposed that preferential tax policies inhibit the digital transformation of manufacturing enterprises. However, some scholars both domestically and internationally have found through research that tax incentives do not stimulate enterprise innovation and R&D. For example, some scholars have conducted an empirical study using a model to investigate the incentive effects of tax incentives in Canada on innovative activities and found that tax preferential policies do not stimulate enterprise innovation. Hu Kai and Wu Qing [14] discovered that due to low productivity among enterprises and the continually improving institutional environment that prevents enterprises from easily copying or imitating, tax relief does not lead to increased innovative output by enterprises.

3.2 Development Trends

In the future, as digital transformation progresses further and tax policies continue to improve, the impact of preferential tax policies on the digital transformation of manufacturing enterprises will increasingly gain attention. Strengthened interdisciplinary research will facilitate the integration of knowledge across different disciplines,

providing a more comprehensive perspective for revealing the mechanism of action of preferential tax policies. Policy assessment and optimization will become key research focuses to ensure that the long-term and dynamic effects of preferential tax policies can maximize the promotion of digital transformation among manufacturing enterprises. Additionally, international comparative research will be strengthened, providing robust support for cross-country comparisons and international cooperation in the digital transformation of manufacturing enterprises through transnational comparisons and international collaborations. These development trends will collectively drive the in-depth exploration and advancement of research on the impact of preferential tax policies on the digital transformation of manufacturing enterprises.

4 Conclusions and Recommendations

Preferential tax policies, as a key task promoted by the government, are closely related to enterprise digital transformation and theoretically influence it [15]. Based on the aforementioned background, the impact, pathways, and contextual characteristics of preferential tax policies on enterprise digital transformation have been identified.

The research findings are as follows: Firstly, preferential tax policies can significantly promote enterprise digital transformation, with greater policy intensity leading to a higher degree of digital transformation [15]. Secondly, increased intensity of preferential tax policies can enhance R&D investment and strengthen enterprise innovation momentum, as well as alleviate financing constraints, both contributing to promoting enterprise digital transformation. Thirdly, the business environment can significantly facilitate the positive interaction between preferential tax policies and enterprise digital transformation, effectively exerting external governance functions.

Based on the research conclusions of this paper, the following three recommendations are proposed:

Firstly, the government should intensify preferential tax policies to drive enterprise digital transformation. In the digital economy era, enterprise digital transformation is crucial for achieving high-quality economic development. Preferential tax policies not only alleviate the tax burden on enterprises but also elevate the degree of enterprise digital transformation, injecting momentum into high-quality enterprise development.

Secondly, enterprises should seize the dividend of preferential tax policies and actively promote digital transformation. The implementation of preferential tax policies not only increases enterprises' R&D investment but also reduces their cash flow expenditures, significantly alleviating their financing constraints.

Thirdly, the government should actively optimize the business environment, leveraging its external governance function to further promote enterprise digital transformation. A favorable business environment facilitates increased enterprise R&D investment, alleviates financing constraints, and optimizes resource allocation, thereby driving enterprise digital transformation. Based on these considerations, government departments should actively engage in the construction of a business environment, continuously deepening market reforms to provide a robust market environment for

enterprise digital transformation. This should coordinate with preferential tax policies to jointly drive enterprise digital transformation.

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