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Research on the Present Situation, Problems and Countermeasures of Digital Transformation of Small and Medium-sized Private Enterprises

Weihao Yue

School of Mathematical Sciences, Shanxi University, Taiyuan, China

1304007038@qq.com

Abstract. In recent years, the digital transformation of small and medium-sized private enterprises has become one of the hot issues of academic and industrial concern. This paper first expounds the development status and existing problems of digital transformation of small and medium-sized private enterprises, then analyzes the digital transformation of small and medium-sized private enterprises by SWOT analysis and PEST analysis model, and finally puts forward some countermeasures and suggestions at the government level, enterprise level and market level.

Keywords: Small and Medium-sized Private Enterprises; Digital Transformation; Countermeasure and Suggestion.

1. Introduction

Since July 2023, policies and measures to support the development of private economy have been introduced intensively. The Opinions of the Central Committee of the Communist Party of China and the State Council on Promoting the Development and Growth of Private Economy was issued, and 31 policies were put forward to support the development of private economy. This further shows that the healthy development of private economy is an important part of China's economic development and the main force to achieve high-quality economic development. At the same time, China's economy has shifted from a high-speed growth stage to a high-quality development stage. Digital transformation has become a new kinetic energy and engine of economic development, which is not only a practical path to support the high-quality development of private enterprises, but also the only way for private enterprises to adapt to the new stage of development, improve innovation and improve market competitiveness.

Although private enterprises gradually accept the concept of digital transformation and practice it, it is difficult in the process of exploration. Through on-the-spot investigation, it is found that some small and medium-sized private enterprises have some problems in the process of digital transformation, such as large differences in transformation benefits and costs, limited transformation ability, etc., which leads to the failure to form a strategic consensus on digital transformation, and the instability and ambiguity of transformation methods. Based on the above reasons, by the end of 2022, more than 60% of private enterprises have undergone digital transformation, but most small and medium-sized private enterprises think that they are still in the initial exploration stage of digital transformation.

2. Literature Review

1. On the development status and problems of private enterprises

Qin Li and Yao Xiaofang (2001) respectively analyzed the behavior, regional distribution, industry distribution and market effect of private enterprises entering the securities market by using detailed statistical data, revealed the development status of private enterprises going public in China, and provided a reference for the provinces, cities and relevant parties to formulate their development strategies.

Huang Ao et al. (2022), taking Wenzhou as an example, studied the high-quality private enterprises represented by single champion enterprises in manufacturing industry, combed the experience and shortcomings of the development of private enterprises, analyzed the distribution characteristics and related policies of gradient cultivation of high-quality private enterprises in manufacturing industry, and provided experience reference and decision-making reference for promoting high-quality private enterprises in other regions to continue to strengthen.

2. Development status and problems of digital transformation

Chen Yujiao et al. (2022) found that industrial digitalization significantly promoted the digital transformation of enterprises, and the development of regional digital economy played a role in promoting the relationship between them.

Lai Yanru and Deng Ningjun (2023) made a comprehensive analysis of the development status of manufacturing enterprises in Zhaoqing City, and discussed the problems faced by manufacturing enterprises in Zhaoqing City in digital transformation by using data analysis and other methods. Finally, in view of some shortcomings in digital transformation of manufacturing enterprises in Zhaoqing City, some suggestions were put forward, such as increasing talent introduction , which provided enlightenment and reference for manufacturing enterprises in other cities.

Shi Yupeng et al. (2021) found that the overall digital transformation of Chinese enterprises is still in its infancy based on the analysis of the survey data of "Ten thousand private enterprises evaluating the business environment". The pace of digital transformation of enterprises in the central, western and northeastern regions obviously lags behind that in the eastern region. The main factors restricting digital transformation are insufficient compound talent reserve and weak industrial base.

3. Development status and problems of digital transformation of private enterprises

Shi Yupeng et al. (2021) put forward that the promotion of business environment construction to the digital transformation of enterprises is characterized by "big at both ends and small in the middle" due to the scale of enterprises.

He Fan and Liu Hongxia (2019) found that digital transformation can significantly improve the economic benefits of entity enterprises, Zhao Chenyu (2021) believes that the digital development of enterprises is a powerful driving force to promote the service transformation of manufacturing enterprises in the new era, which can significantly improve the service level of enterprises. In the capital market, Wu Fei and others (2021) believe that the digital transformation of enterprises has significantly improved the liquidity of stocks and improved the performance of enterprises in the capital market.

Furthermore, Zhao Chenyu (2021) shows that the existing research pays attention to the economic effects of the digital transformation of the whole sample enterprises when analyzing the digitalization of enterprises, but has not taken into account the impact of the differences in property rights. A survey shows that private enterprises, especially small and medium-sized enterprises in private enterprises, have a serious "digital gap" problem.

Based on the above analysis, the above scholars have done some preliminary research on the digital transformation of private enterprises and achieved certain results, which provided the foundation for this study. However, there is still no systematic achievement in the research on the digital transformation of small and medium-sized private enterprises. This paper will broaden the horizons for related research.

3. The Development Status of Digital Transformation of Small and Medium-sized Private Enterprises

1.the overall situation of digital transformation of small and medium-sized private enterprises

Recently, the data of China Digital Economy Development Research Report (2023) released by China Information and Communication Research Institute shows that in 2022, the scale of China's digital economy reached 50.2 trillion yuan, a nominal increase of 10.3% year-on-year, which has been significantly higher than the nominal growth rate of GDP in the same period for 11 consecutive years. The proportion of digital economy in GDP is equivalent to that of the secondary industry in the national economy, reaching 41.5%, with Internet technology (IT) and related services. It can be seen that the digital economy has constituted a new driving force for the high-quality development of China's economy, and digitalization has become a new direction for China's economic transformation and upgrading.

Theoretically, the essence of enterprise digitalization is the transformation from "industrialized management mode" to "digital management mode" (Liu Shuchun et al., 2021), which mainly changes the traditional enterprise management thinking mode by implanting digital technology into enterprise operation management systems such as enterprise organization management, production process and supply chain management (Georgeetal,2018; Jian Chen et al., 2020). Moreover, digital development can accelerate the informatization process of enterprises and enhance the technological innovation capability of enterprises (Li Haijian et al., 2014). Among them, as an important part of China's socialist market economy, private economy bears the important mission of digital economy development and transformation in the high-quality economic development.

Private economy has always been an important part of China's national economy and an important force for China's economic and social innovation and development (Lin Zhifan and Cheryl Long, 2021). In this context, the digital transformation of small and medium-sized private enterprises has also become one of the key issues of academic and industry concern.

2. the specific analysis of digital transformation of small and medium-sized private enterprises

According to the survey data of "China Private Enterprise Survey" conducted by the United Front Work Department of the Central Committee, the All-China Federation of Industry and Commerce, the State Administration of Market Supervision, the China Academy of Social Sciences, and the Private Enterprise Research Group of China Private Economy Research Association, more than 94% of small and medium-sized private enterprises in the county have understood the concept of digitalization. On the whole, small and medium-sized private enterprises in the county have made sufficient ideological preparations for possible digital transformation. Based on the technology and research and development of digital transformation, a considerable number of small and medium-sized private enterprises already have the basic conditions for digital transformation. In terms of future investment tendency, 32.4% of small and medium-sized private enterprises decided to increase investment in product research and development, while 25% of small and medium-sized private enterprises planned to increase investment in technological innovation and technological transformation. Technology research and development and innovation drive have been the consensus of many enterprises. In proportion, 76.1% of these small and medium-sized private enterprises have started digital transformation, and only 55.1% of other enterprises have started digital transformation.

From the three regions of eastern, central and western China, 62.8% of county-level small and medium-sized private enterprises in the central region have started digital transformation, the proportion of small and medium-sized private enterprises in the eastern region has dropped to 59.2%, and the proportion of small and medium-sized private enterprises in the western region has further dropped to 54.7%. Specific to the stage of digital transformation, the proportion of small and medium-sized private enterprises in counties in the eastern region is the highest, accounting for 28%, and there is little difference between the central region and the western region, accounting for about 27%; From the perspective of small and medium-sized private enterprises entering the digital use stage, the proportion of such enterprises in the central region is 24%, that in the eastern region is 21.9%, and that in the western region is only 17.9%; Enterprises with leading digital transformation progress (in the stage of integration or integration) account for 11.9% in the central region, 9.2% in the eastern region and 9.8% in the western region.

Judging from the county GDP of provinces (autonomous regions and municipalities), according to the Statistical Yearbook of Counties and Cities in China, in 2020, Jiangsu, Henan, Shandong, Zhejiang and Hunan ranked in the top five in China's county GDP. This difference is also reflected in the digital transformation process of small and medium-sized private enterprises in various provinces and counties. In 2020, the proportion of small and medium-sized private enterprises in various provinces and counties that have started digital transformation is the highest in Zhejiang Province, reaching 76.6%. The digital transformation rate of small and medium-sized private enterprises in counties is also at a high level in the provinces with the highest GDP ranking (such as Jiangsu, Henan, Fujian, etc.).

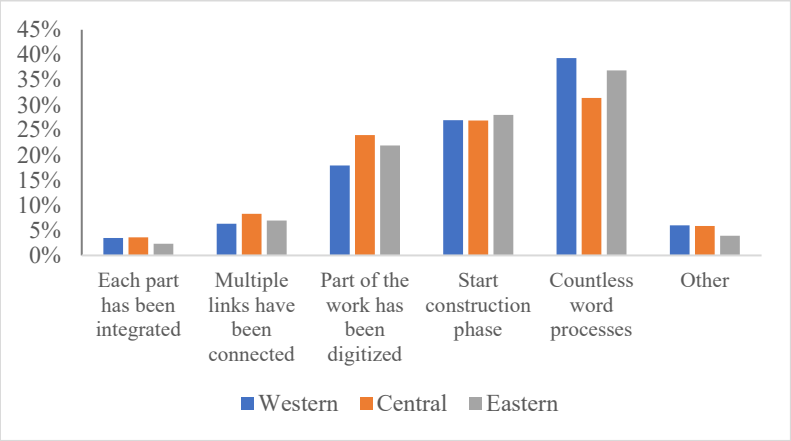

Figure 1. Regional differences in digital transformation of small and medium-sized private enterprises in China

Source: China private enterprise survey data.

From the three regions of eastern, central and western China, 62.8% of small and medium-sized private enterprises in central China have started digital transformation, while only 59.2% in eastern China have started digital transformation, while the proportion of digital transformation of small and medium-sized private enterprises in western China is even lower, only 54.7%. Generally speaking, the digital transformation of small and medium-sized private enterprises shows a trend of fast in central China and slow in eastern and western China.

As far as the above data is concerned, the digitalization of small and medium-sized private enterprises is generally carried out in the central region, and the transformation of the eastern and western regions began late, and the overall digitalization level is decreasing from the central region to the eastern and western regions. The central and eastern regions started early and developed rapidly, and are closely linked with economically developed cities. The digital transformation of small and medium-sized private enterprises located in the central region may have relatively better location conditions.

3. Correlation analysis of digital transformation and economic development of small and medium-sized private enterprises

The digital transformation of small and medium-sized private enterprises can lead innovation to drive the economy and create a new economic development model. On the one hand, enterprises can innovate the combination of production factors in the process of digital transformation. At the same time of digital integration, enterprises have optimized the combination of production factors and enhanced their core competitiveness. On the other hand, the digital transformation of enterprises has improved the innovation efficiency of enterprises. In the process of transformation, enterprises apply emerging information technology, increase investment in innovation according to the development environment of economic market, and rely on the innovation system combined with Industry-University-Research to break through key core technologies and improve innovation level.

Digital transformation of small and medium-sized private enterprises can promote green economic development and build a healthy economic ecosystem. The digital transformation of enterprises is

mainly reflected in two aspects: optimizing resource allocation and realizing sharing economy. The development, innovation and popularization of Internet information technology make the production management of enterprises more scientific, innovate the combination mode of production factors, and push the economic development to the road of green ecology. In addition, the digital transformation of enterprises has enabled the establishment of digital systems within traditional enterprises, which not only reduces management costs, but also makes enterprises pay more attention to the ecological office and promote their own high-quality development.

In the process of digital transformation of enterprises, the sharing economy has also developed better. Similar enterprises or affiliated enterprises that can achieve effective integration can realize the sharing of relevant operational data experience and reduce the ineffective investment of enterprises.

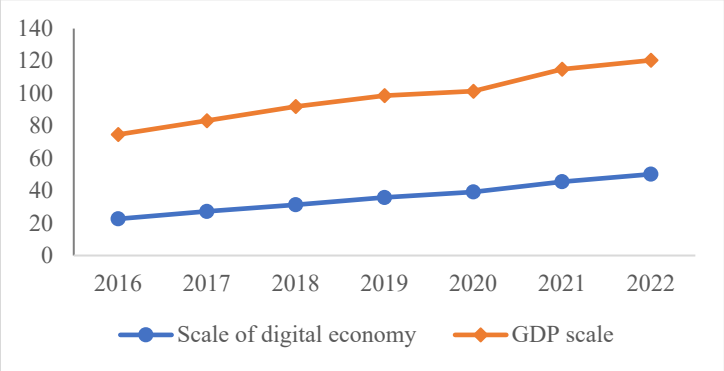

Figure 2. Trend chart of China's digital economy scale and GDP scale from 2016 to 2022

Source: Website of National Bureau of Statistics (unit: 100 million yuan)

It can be seen from Figure 2 that the scale of China's digital economy and GDP have shown a steady upward trend from 2016 to 2022, and their growth trends and slopes are also very close.

After that, we use stata software to empirically test the correlation between China's digital economy scale and GDP scale, and the results show that the correlation coefficient matrix between them is as follows:

$$T = \begin{bmatrix} 1 & 0.9964 \\ 0.9964 & 1 \end{bmatrix} \quad (1)$$

In formula (1), the t value is used to represent the correlation coefficient matrix between the scale of China's digital economy and the scale of GDP. From the above results, the correlation coefficient between the two is 0.9964, which shows that the scale of China's digital economy and GDP have a strong correlation, so it can also show that the digital transformation of small and medium-sized private enterprises can boost the high-quality economic development.

4.the problems in the digital transformation of small and medium-sized private enterprises

Small and medium-sized private enterprises are constrained by factors such as business scale and living environment. In the process of digital transformation, they are easy to face the dilemma of "not waiting for death in transformation, but dying in transformation". Chen Ye (2021) Through questionnaire survey and analysis, we can know that the difficulties in the digital transformation of small and medium-sized enterprises can be divided into three categories: first, the lack of transformation ability of small and medium-sized private enterprises makes them "unable to transfer"; Second, the development conditions of small and medium-sized private enterprises are not in good agreement with digital transformation, which leads to "not turning"; Third, the digital transformation of small and medium-sized private enterprises lacks the guarantee of the bottom, which leads to "dare not turn".

(1)Insufficient transformation ability leads to "no transfer"

At present, China's small and medium-sized private enterprises have relatively insufficient capabilities related to digital transformation and do not have the basic conditions for digital transformation, which makes enterprises "unable to transfer". Mainly manifested in the following three aspects:

First, the update and application of digital equipment are relatively backward. At present, although the average coverage of office network in small and medium-sized private enterprises has reached 89%, the proportion of digital equipment application in production, service and other major links is only 45% and lacks the hardware foundation for digital transformation. Second, the operational capacity of digital platforms is low. Small and medium-sized private enterprises have small production scale, single financing channel and poor ability to independently develop and operate digital platforms. Third, the management has not paid enough attention to it. Studies have shown that the digital transformation of small and medium-sized private enterprises is easier to succeed if it is promoted by management. However, at present, the management of small and medium-sized private enterprises in China does not pay enough attention to digital transformation, so it lacks the software foundation of digital transformation.

According to enterprises, 70.73% of small-scale private enterprises have difficulty in transferring, 66.92% of miniature private enterprises have difficulty in transferring, and 65.38% of medium-sized private enterprises have difficulty in transferring, both of which are higher than 50%.

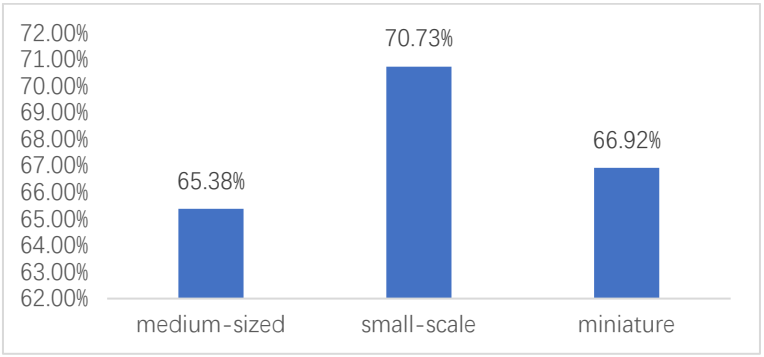

Figure 3. Proportion of "non-transferable" enterprises in small and medium-sized private enterprises

(2)The degree of fit is not high, resulting in "not turning"

The compatibility between the development of small and medium-sized private enterprises and digitalization determines the difficulty of their related transformation. However, the current compatibility between small and medium-sized private enterprises and digital transformation is not high, resulting in enterprises not being able to transform. Mainly reflected in the following two aspects: firstly, it is difficult to find the integration point between business scenarios and digital applications, and the degree of compatibility with digital transformation is not high. Secondly, it has not fully integrated online and offline development, forming interconnectivity between various links, and the depth of integration with digital transformation is not high. Currently, the online and offline development of small and medium-sized private enterprises is relatively fragmented, and they have not fully utilized digital information technologies such as big data and artificial intelligence to promote the digitization of offline and online traffic.

According to enterprises, the proportion of small private enterprises and micro private enterprises with high difficulty is the same, both of which are 78.46%; Among the medium-sized private enterprises, the proportion of enterprises with "unable to transfer" and high degree of difficulty is slightly lower, accounting for 76.92%. Both are higher than 60%.

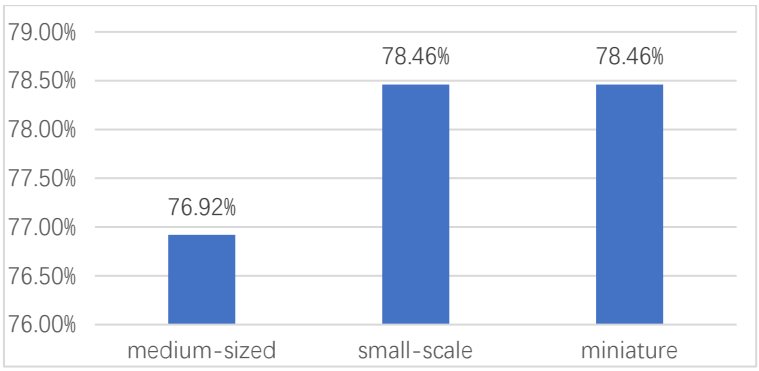

Figure 4. Proportion of "Non-transfer" enterprises in small and medium-sized private enterprises

(3)Lack of protection at the bottom leads to "dare not turn"

The cost of digital transformation of small and medium-sized private enterprises is high, the process is complicated and lasts for a long time, and the relevant guarantee is lacking, resulting in enterprises "dare not turn". Mainly reflected in the following two aspects: First, the top-level design of digital strategy is not comprehensive, and the institutional mechanism of digital transformation of small and medium-sized private enterprises is not perfect. Combined with the theoretical analysis of new institutional economics, the current digital development system and mechanism, including digital property rights system, is not perfect and the transaction cost of small and medium-sized enterprises in data application is high. Second, the lack of a suitable digital ecological environment. The digital transformation of small and medium-sized enterprises takes a long time and has a slow effect. At present, the coordinated transformation between upstream and downstream enterprises and industrial chains related to small and medium-sized private enterprises is not enough, and the radiation effect and cluster effect of digital transformation are not strong, which can not provide a systematic guarantee for the digital transformation of small and medium-sized private enterprises.

According to enterprises, the proportion of medium-sized private enterprises with high difficulty is 82.05%, that of small private enterprises with high difficulty is 81.30%, and that of micro private enterprises with high difficulty is 79.23%, both higher than 70%.

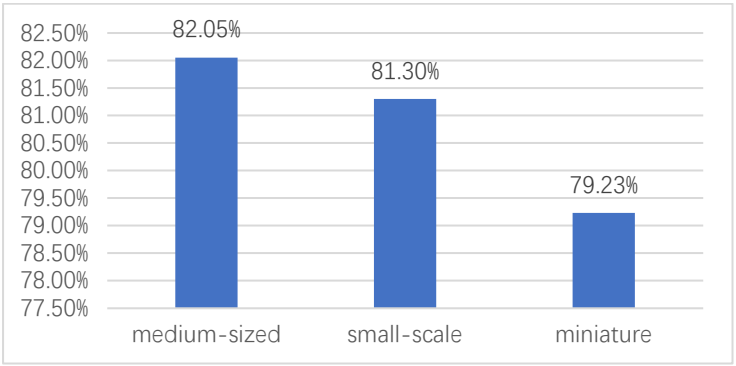

Figure 5. Proportion of small and medium-sized private enterprises that dare not transfer.

4. SWOT Analysis Model of Digital Transformation of Small and Medium-sized Private Enterprises

In order to find out the path of digital ransformation of small and medium-sized private enterprises, we will use SWOT analysis method to analyze the strengths, weaknesses, opportunities and threats faced by small and medium-sized private enterprises in the process of digital transformation.

1. Strengths

Small and medium-sized private enterprises are small in scale, with simple products, personnel and organizational structure, and relatively few funds, technologies and talents are needed for digital transformation, making it more difficult to adjust; Small and medium-sized private enterprises are flexible and adaptable, and can be digitally transformed from point to point; Many small and medium-sized private enterprises are brave in innovation, enterprising and willing to try new things. In fact, the foundation of many small and medium-sized private enterprises is innovation, and they will find market opportunities through innovation. Under the impact of the digital wave, they will inevitably be brave in digital transformation.

2. Weaknesses

The biggest problem of small and medium-sized private enterprises is the lack of funds, technology and talents. Small and medium-sized private enterprises are in a weak position in the capital market because of their lack of strength and credibility, limited financing channels and high financing costs. However, the application cost of new technologies is still high, and the cost of hardware equipment renovation or replacement is also high, which requires a large amount of funds. Small and medium-sized private enterprises are relatively limited in mastering core technologies and emerging technologies. Small and medium-sized private enterprises have fewer employees, and their wages and benefits are not as good as those of large enterprises, which makes them less attractive to outstanding employees. However, digital transformation requires compound talents who master digital technology.

3.Opportunities

First of all, the state has upgraded the digital transformation to a national strategy and strongly supported the digital transformation of small and medium-sized private enterprises. Measures taken include building a docking mechanism between platform enterprises and small and medium-sized private enterprises, jointly tackle key technologies and product organizations for digital transformation; Strengthen digital transformation public services such as platforms, algorithms, service providers, experts, talents and finance; In terms of funds, we will explore "cloud loan" to ease the loan difficulty. Secondly, there are large state-owned enterprises and small and medium-sized private enterprises with successful transformation as examples. The successfully transformed enterprises can provide experiences and practices worth learning. Thirdly, higher vocational colleges that cultivate talents for small and medium-sized private enterprises take cultivating digital talents as the focus of training. In recent years, higher vocational colleges have been carrying out digital transformation of talent training, including the transformation of specialty setting, the transformation of talent training mode; There are also reforms in teachers and teaching materials around the digital transformation, which have laid a good talent foundation for the digital transformation of small and medium-sized private enterprises.

4. Threats

Table 1. SWOT analysis matrix of digital transformation of small and medium-sized private enterprises

Strengths	Weaknesses
1. Digital transformation requires relatively little capital, technology and talents; 2. Flexible and adaptable.	1. Limited financing channels and high financing costs. 2. The mastery of core technologies and emerging technologies is relatively limited.
Opportunities	Threats
1. The state strongly supports the digital transformation of small and medium-sized private enterprises. 2. There are large state-owned enterprises and small and medium-sized private enterprises with successful digital transformation as examples.	1. The market competition is more and more fierce. 2. The digital economy era urges the need to further strengthen the digital transformation of small and medium-sized private enterprises.

With the promotion of digital transformation of the whole economy, the market competition is becoming more and more fierce, and the uncertainty faced by small and medium-sized private enterprises is getting stronger and stronger. Only through practical and effective digital transformation can we better grasp the market opportunities and seek development on the basis of survival, otherwise it may be eliminated by the market. The digital economy era urges the need to further strengthen the digital transformation of small and medium-sized private enterprises. Small and medium-sized private enterprises must adopt digital and intelligent means, otherwise they are likely to be eliminated in the fierce competition.

5. Small and Medium-sized Private Enterprises Digital Transformation PEST Analysis Model

PEST analysis is used to analyze the external macro-environment of the development of small and medium-sized private enterprises, including four levels: Politics, Economy, Society and Technology. In recent years, this analysis method has been applied to many fields, such as enterprise planning, regional development, government services and so on.

1. Policy environment (P)

The so-called policy environment refers to the principles, policies and regulations formulated by the state and local governments according to their own interests. The formulation of policies and regulations, on the one hand, protects the legitimate interests of enterprises from infringement, on the other hand, enterprise activities are bound by laws and regulations.

On February 21, 2024, at the symposium on legislative work jointly held by the Ministry of Justice, the National Development and Reform Commission and the the National People's Congress Standing Committee (NPCSC) Law Committee, it was emphasized that the drafting of the Law on the Promotion of Private Economy had started and the legislative process would be accelerated. The legislative work of the private economy promotion law summed up practical experience, consolidated the reform achievements, responded to the concerns of enterprises, and filled the shortcomings and weaknesses. In November 2022, the Ministry of Industry and Information Technology issued the Guide for Digital Transformation of Small and Medium-sized Enterprises puts forward 14 specific measures to help small and medium-sized enterprises digitally transform. As can be seen from the above policies, the state attaches great importance to the digital transformation and development of small and medium-sized private enterprises.

2. Economic environment (E)

Economic environment refers to the social and economic conditions and economic policies that constitute the survival and development of small and medium-sized private enterprises. In recent years, China's economic development has been growing, per capita disposable income has been steadily improving, domestic consumption demand is large, and the consumer market continues to improve. In 2023, China's economic operation shows the characteristics of "one high, one low and two levels", that is, high growth rate, stable employment, low prices and basic balance of international payments, and the main expected goals have been successfully achieved.

3. Social environment (S)

Social environment includes the whole social economic and cultural system in a broad sense, and only refers to the direct environment of human life in a narrow sense. The Fourth Plenary Session of the 19th CPC Central Committee pointed out that since the founding of New China 70 years ago, our party has led the people to create a miracle of rapid economic development and long-term social stability that is rare in the world. General Secretary Xi Jinping talked about "five strategic advantages", and emphasized "long-term stable social environment". "Long-term and stable social environment" is a favorable social environment for the digital transformation of small and medium-sized private enterprises.

4. Technical environment (T)

Technical environment refers to the technical level and technological innovation ability of a country or region. The technical level is the source power for small and medium-sized private enterprises to reduce production costs and enhance their competitiveness. Since the 18th National Congress of the Communist Party of China, the CPC Central Committee has attached great importance to the intelligent and digital transformation and development of small and medium-sized private enterprises. Relevant data show that as of January 2023, more than 150 influential industrial Internet platforms have been cultivated, and the number of industrial equipment connections has exceeded 79 million sets, which provides a good technical environment for the digital transformation of small and medium-sized private enterprises.

Table 2. PEST analysis chart of digital transformation of small and medium-sized private enterprises

Policy environment(P)	Economic environment (E)	Social environment (S)	Technical environment (T)
The Ministry of Industry and Information Technology has issued the "Guidelines for Digital Transformation of Small and Medium sized Enterprises", proposing 14 specific measures to enhance their ability to provide digital products and services.	In 2023, China's economic operation shows the characteristics of "one high, one low and two levels" and the main expected goals have been successfully achieved.	"Long-term stable social environment" is a favorable social environment for the digital transformation of small and medium-sized private enterprises.	Positive progress has been made in the digital transformation of the real economy, which provides a good technical environment for the digital transformation of small and medium-sized private enterprises.

6. Countermeasures and Suggestions

Firstly, this paper expounds the current situation, problems and countermeasures of digital transformation of small and medium-sized private enterprises, then analyzes the development status and existing problems of digital transformation of small and medium-sized private enterprises, and then makes a systematic study on digital transformation of small and medium-sized private enterprises by using SWOT and PEST analysis models. Based on the above research, this paper will put forward the following countermeasures and suggestions:

1. Countermeasures and suggestions at the government level

The government needs to build a collaborative and efficient top-level design mechanism, improve the supply policy of digital transformation factors, improve the government's digital governance and service capabilities, give full play to the leading role of strengthening digital transformation policy services, provide necessary bottom-up protection for the digital transformation and development of SMEs.

2. Countermeasures and suggestions at the market level

Based on the government environment provided by the government, the market should lead the construction of the digital transformation ecosystem of small and medium-sized private enterprises and give full play to its decisive role in the process of resource allocation in the digital field. By accelerating the construction of modern industrial system, promoting the development of small and medium-sized private enterprise clusters and giving play to the supporting role of intermediary institutions, we can provide a high-quality external market environment for the digital transformation

of small and medium-sized private enterprises and improve the degree of fit between small and medium-sized private enterprises and the development of digital economy.

3. Countermeasures and suggestions at the enterprise level

The digital transformation of small and medium-sized private enterprises not only needs external policy services and the optimization of related ecosystems, but also needs the enterprises themselves to improve their data acquisition and operation and digital profitability by increasing technological innovation, innovating organizational management mode and paying attention to the introduction and training of digital talents, so as to independently improve the internal environment for digital transformation of enterprises and enhance the digital transformation capabilities of small and medium-sized private enterprises.

References

[1] Qin Li, Yao Xiaofang. China private enterprises listed status and analysis [J]. Science and Science and Technology Management, 2001(11):5.

[2] Huang Ao, Ni Kao Meng, Ren Zongqiang. Analysis of the development status and cultivation system of high-quality manufacturing enterprises-taking Wenzhou private enterprises in Zhejiang Province as an example [J]. Audit Observation, 2022(3):8.

[3] Lai Yanru, Deng Ningjun. Analysis of the current situation of digital transformation of manufacturing industry in Zhaoqing and suggestions for development [J]. Science and Technology and Industry, 2023(9):105-108.

[4] Shi Yupeng, Wang Yang, Wentao Zhang. Digital transformation of Chinese enterprises: status quo, problems and prospects [J]. Economist, 2021(12):8.

[5] Chen Yujiao, Song Tiebo, Huang Jianbin. Digital transformation of enterprises: "Do as the Romans do" or "Do as the Romans do"? -Research on decision-making process based on institutional theory and cognitive theory [J]. Research on Science of Science, 2022 (06):1054-1062.

[6] Liu Shuchun, Yan Jinchen, Zhang Si Xue, etc. Can digital transformation of enterprise management improve input-output efficiency [J]. Management World, 2021(05):170-190+13.

[7] Jian Chen, Huang Shuo, Liu Yunhui. From empowerment to empowerment-enterprise operation management in digital environment [J]. Management World, 2020(02):117-128+222.

[8] Li Haijian, Tian Yuexin, Li Wenjie. Internet thinking and traditional enterprise reengineering [J]. China Industrial Economy, 2014(10):135-146.

[9] Lin Zhifan, Cheryl Long. Can social capital support the high-quality development of private enterprises in China? [J]. Managing the World, 2021(10):56-73.

[10] He Fan, Liu Hongxia. Evaluation of performance improvement effect of digital transformation of entity enterprises from the perspective of digital economy [J]. Reform, 2019(04):137-148.

[11] Zhao Chenyu. Digital development and service transformation-empirical evidence from manufacturing listed companies [J]. nankai business review, 2021(02):149-163.

[12] Wu Fei, Hu Huizhi, Lin Huiyan, etc. Digital transformation of enterprises and capital market performance-empirical evidence from stock liquidity [J]. Management World, 2021 (07):130-144+10.

[13] Chen Ye. Research on the digital transformation of small and medium-sized enterprises [D]. Sichuan University, 2021(05).