

Research Article

Influence Factors and Policy Analysis of Small and Microenterprises' Sustainable Development: Empirical from Zhejiang

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The sustainable development of enterprises is the driving force of national economic growth. The main objectives of this paper are to find what are all the influencing factors of enterprise sustainable development, how to produce the influence, and how to carry out effective strategy combination. This paper investigates 321 enterprises and analyzes their financial data from the aspects of market, internal management, industry, scale, products, and innovation ability. We find that fixed assets, information management level, and the overall quality of employees have the best driving force, reaching 0.132, 0.195, and 0.874, respectively. Enterprises also put more efforts on the improvement of internal management level and the expansion of industrial chain, which were 0.3778 and 0.2138, respectively. As far as the government's strategy of supporting and promoting tax policy is concerned, tax policy has a good independent impact, but when combined with other indicators, the impact effect is not significant. This shows that the promotion efficiency of the policy is low, and the applicability and pertinence need to be optimized. In addition, the promotion effect of innovation investment on sustainable development is poor, which shows that the innovation efficiency of small and microenterprises in Zhejiang Province is not high, and the ability to transform innovation resources into innovation output is insufficient.

1. Introduction

In Zhejiang, small and microenterprises, all of which refer to industrial manufacturing enterprises in this paper, continue to flourish, and they have made great contributions to the growth of national economy, the promotion of employment, and the increase of tax revenue. However, small and microenterprises rely on resource input for a long time, and the economic leading model characterized by "high consumption, low quality, and low efficiency" will not be sustainable. The Chinese government has been actively promoting the sustainable development of small and microenterprises and encouraging them to make use of new technologies. However, small and microenterprises have small-scale and poor antirisk ability. They need effective selfgrowth and appropriate government support to achieve sustainable development. Combined with the data of internal and external factors of small and microenterprises, this paper analyzes the impact on sustainable development. Our main objective is to establish evaluation indicators for the sustainable development of small and microenterprises, find the influence differences of different factor combinations through data demonstration, and find out the effective ways for the sustainable development of small and microenterprises.

Sustainable development has been a reform actively promoted by the Chinese government in recent years. In terms of industrial policy, the Chinese government not only gives great concessions in taxes and fees but also continues to strengthen subsidies for some R&D investment. However, some characteristics of small and microenterprises make the implementation of relevant policies inconsistent with expectations. For example, in fixed assets, foreign trade, R&D, and training support policies, its results show significant differences. How to assess the effectiveness of these measures requires adequate investigation and analysis.

Sustainable development is a macro concept, including rich and diverse content. In different research, its concept also has a big difference. Looking at the research in recent years, it is found that sustainable development takes enterprise transformation and upgrading as the connotation, and the discussion includes two levels: enterprise transformation and enterprise upgrading [1]. There are also differences in the sensitivity of transformation and upgrading to practical factors. Therefore, we should classify and analyze the influencing factors of the transformation and upgrading of small and microenterprises.

In the research on the strategy of promoting sustainable development, the existing relevant research results are mostly based on the empirical analysis with the potential factors of transformation and upgrading as variables, such as the number of innovative products and patents, which is difficult to cover the connotation of sustainable development and the design of effective promotion means of sustainable development from a systematic perspective, which is one-sided. Therefore, when analyzing the promotion strategy of sustainable development of small and microenterprises, we need to solve the problem of evaluation system of sustainable development first. Starting from the connotation system of sustainable development, we need to build evaluation indicators including transformation and upgrading and then classify the data for demonstration. Through in-depth data analysis, explore the relationship between different promotion and incentive methods and transformation and upgrading system, so as to design more effective strategies to promote the sustainable development of small and microenterprises.

The contribution of this paper may lie in constructing the evaluation system of sustainable development by using qualitative and quantitative analysis methods, studying the influencing factors of sustainable development of enterprises from the perspective of enterprise transformation and upgrading, and providing reference for sustainable development for enterprises and governments in combination with the influence of policy incentives.

Enterprise sustainable development is a new concept put forward in the 1980s with the extensive discussion of global environment and development. It is the crystallization of people's long-term and profound reflection on the traditional development model. Enterprise sustainable development means that in the process of pursuing self-survival and sustainable development, enterprises should not only consider the realization of enterprise business objectives and improve their market position, but also maintain the continuous profit growth and ability improvement in the leading competitive field and the business environment of future expansion. Transformation and upgrading is an important means for enterprises to achieve sustainable development. Transformation can improve the problemsolving ability of enterprises to deal with complex market environment, and upgrading can improve the stability of enterprise business performance.

Many scholars analyze the connotation, strategic choice, system construction, dynamic mechanism, and influencing

factors of enterprise sustainable development. These results explain the sustainable development from the endogenous growth model. However, the continuous innovation of enterprises is influenced not only by the wage level and scale within the organization, the company's liquidity management, technical leadership, technological diversification, the control of the general manager, and the heterogeneity between the chairman and the general manager [2] but also by the fierce market competition outside the organization, environmental uncertainty, and government subsidy investment [3, 4].

The sustainable development of enterprises needs to be connected with the outside world. One is the market in which the enterprise is located, and the other is the policy environment in which the enterprise is located [5]. The sustainable development of enterprises needs to adapt to the changes of market environment through the absorption of connected resources and policy texts, and make corresponding strategies [6, 7]. The sustainable development of enterprises needs to break the organizational boundary and obtain the driving force of sustainable development through the external market, so it is embedded in a certain industry [8]. The integration of internal and external resources in the process of sustainable development of enterprises needs to design corresponding policy incentives and establish information communication and resource trading mechanism through the connection between enterprise subjects. Enterprises can deal with the complexity of knowledge in sustainable development [9], reduce transaction costs, including information search, communication and negotiation, and improve the strength of knowledge and technology connection between enterprises [10]. This reflects the transformation and upgrading performance of enterprises in sustainable development.

From the perspective of resource-based theory, the motivation of transformation and upgrading comes from within the enterprise. Enterprises could gain competitive advantage by allocating its valuable, scarce, and imitative resources. The possession of key resources and acquisition of key capabilities laid a foundation for enterprise transformation and upgrading. Key resources include capital accumulation and human resources [11]. The key capabilities of enterprises include independent innovation capability and marketing service capability [12].

From the perspective of contingency theory, the motivation source of enterprise transformation and upgrading is its external. On one hand, the market prospect is broad, the consumption psychology is maturing day by day, and the market competition order is becoming more and more standardized, which provides a broad external space for the enterprise to upgrade. The government vigorously creates a good external environment for technological innovation, which is conducive to promoting the rapid upgrading of enterprises [13]. On the other hand, entrepreneurship and brand awareness can accelerate the process of establishing independent brands. Enterprise ambition is an important factor affecting the transformation and upgrading of enterprises, while enterprise ambition is an external manifestation of entrepreneurship and corporate culture [14]. It also includes innovative, aggressive, passionate, and persistent entrepreneurship; strong sense of responsibility to people and employees; strong independent intellectual property rights and brand awareness; and different influence on enterprises to choose different transformation and upgrading paths [15].

Policy incentive can guide the enthusiasm and initiative of enterprise transformation and upgrading [16, 17]; tax preferential policy can better induce technological innovation [18, 19]; and policy incentive intensity is not linearly related to enterprise performance [20]. Tax and government R&D policy fluctuations will have a certain negative inhibitory effect [21]. A variety of strategic combinations of policy incentives [22, 23], with better pertinence and balance [24–26].

Based on this, this paper believes that the factors that promote the transformation and upgrading of the manufacturing industry are composed of internal and external factors, including the size of the enterprise itself, R&D investment, the management level of entrepreneurs, and the support of government fiscal and taxation policies.

To sum up, the transformation and upgrading of enterprises are highly matched with sustainable development, and the indicators can be designed from the two aspects of internal management and external competition. However, at present, there is a lack of design of observation indicators at the specific microlevel, and the weight of indicators is not calculated, so it is difficult to quantitatively analyze the influencing factors of sustainable development of manufacturing industry. In the research of policy analysis, most literature are based on the effect evaluation of a oneway policy, and lack the analysis of the combination effect under the combination of internal and external factors. Therefore, by establishing the micromeasurement index system of transformation and upgrading and through the coordinated combination analysis of internal and external factors, this paper has good research value for the sustainable development of enterprises.

2. Materials and Methods

2.1. Data Sample Collection. This paper took manufacturing small and microenterprises as the research object, selected Zhejiang Province as the sample area, and did the investigation from 2018 to 2019. In accordance with the criteria for the classification of enterprises in the Law of the People's Republic of China on the Promotion of Small and Mediumsized Enterprises and the Opinions of the State Council on Further Promoting the Development of Small and Mediumsized Enterprises, this paper selected enterprises with less than 100 employees or operating income of less than 40 million yuan as the research object. Using the multistage sampling method, we selected 3 from 10 prefecture-level cities in Zhejiang, then selected 2 typical counties or districts from each of the 3 prefecture-level cities, and then selected 3 typical industries in each county or district. A total of 321 samples were obtained.

Based on the transformation and upgrading indicators of enterprise sustainable development, this paper uses AHP to 3

construct the evaluation system and design a quantitative evaluation index. The article then selects variables from the internal and external factors that affect the sustainable development of enterprises, and empirically analyzes the impact of the factors of sustainable development of enterprises using multiple regression method. This paper analyzes the influencing factors of enterprise sustainable development from the microlevel, combined with the effect of policy incentives, and puts forward a practical mathematical analysis model, with the framework shown in Figure 1.

2.2. Sustainable Development Index System. According to the aforementioned hypothesis, the sustainable development of small and micromanufacturing enterprises should be evaluated comprehensively from the two aspects of transformation and upgrading. Transformation is the ability of an enterprise to respond to the competitive environment in terms of market, management, and industrial energy. Upgrading is the static result of the sustainable development of enterprises, which is characterized by enterprise scale, industrial competitiveness, and innovation level. Based on this, the paper designs a questionnaire, and the results are as follows.

In terms of upgrading, enterprises consider scale, product, and innovation ability to be the most reflected indicators, accounting for 33%, 31%, and 29%, respectively. In terms of transformation, enterprises believe that the most visible indicators are market, management, and industry, accounting for 28%, 26%, and 23%, respectively. Accordingly, an overall evaluation system for the transformation and upgrading of small and micromanufacturing enterprises was constructed. Considering the needs of subsequent data analysis, 17 measurement points were designed for each of the 6 indicators to provide data support for quantitative analysis. The details are shown in Figure 2.

The scale of small and microenterprises is the main embodiment of enterprise upgrading. The scale of small and microenterprises is the main bottleneck of its development, and the scale of cost allocation, R&D investment and so on is the main influencing factor. To this end, the state and provinces and cities issued a series of measures to promote the upgrading of small and microenterprises. The evaluation index of enterprise scale mainly includes total fixed assets, total industrial output value, and number of employees.

Products are the foundation of the development of small and microenterprises. The brand, technology content and quality of the product are the main influencing factors of its market competitiveness, the guarantee of enterprise upgrading, and the important link of differential competition of small and microenterprises. Product evaluation indicators mainly include enterprise brand, product technology content, and total finished product.

Innovation ability is the key link of small and microenterprise transformation and upgrading. Small and microenterprises in the market competition product competitiveness mainly rely on its innovation ability to promote. In order to promote the upgrading of its products, this is also

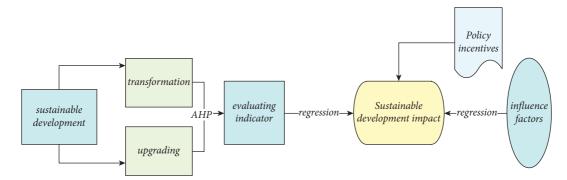


FIGURE 1: Overall design model framework.

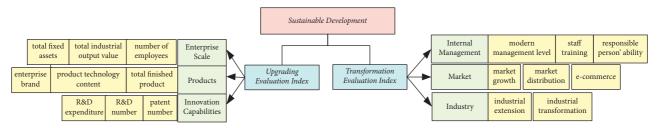


FIGURE 2: Evaluation index system for transformation and upgrade.

a key bottleneck for small and microenterprises. The evaluation index of innovation ability mainly includes R&D expenditure, R&D number, and patent number.

Market is the reflection of the level of small and microenterprise value chain. The market occupied by small and microenterprise products is the comprehensive embodiment of its product brand, technology, and quality, and also the direct influence factor of small and microenterprise profits. In addition, the market development mainly lies in the domestic market, the international market and the electronic commerce market. Market evaluation indicators are market growth, market distribution, and e-commerce.

Internal management is the source of the transformation of small and microenterprises. Most of the management of small and microenterprises is loose and random, so it is necessary to highlight the application of new technology, new tools, and new ideas. At the same time, the overall quality of small and microenterprises is low, and management is mainly responsible for subjective decisions. The main evaluation indexes of modern management level are staff training and management ability of responsible person.

Industry is one of the important ways to transform small and microenterprises. Through the development of the original industry, small and microenterprises extend to upstream or downstream industries, or infiltrate into other emerging characteristic industries, and then enhance the maximization of the overall value chain effect of enterprises, which is the highest requirement for the transformation of small and microenterprises. The evaluation index of industry mainly includes industrial extension and industrial transformation.

2.3. Weight Measurement of the Sustainable Development Evaluation System. In Section 2.2, we constructed an

evaluation system and specific indicators of sustainable development. However, the degree of reflection of each index in the enterprise transformation and upgrading system is different. The importance of different indicators in the transformation and upgrading system is also different. The transformation and upgrading index obtained through the questionnaire can only express a general tendency of the enterprise. However, the importance of relationship between indicators cannot be determined, so it is necessary to further analyze the weight value of each index in the transformation and upgrading, which can reflect the scientific nature of the evaluation system.

Analytic hierarchy process is to decompose complex problems step by step to form a multilevel structure. The weight coefficient of each index is an important analysis tool of decision theory. Hierarchical analysis method can present the relationship of importance between multiple factors in numerical form and has the advantage of quantifying qualitative problems. Therefore, it is necessary to construct a three-tier evaluation system. The first level is the overall goal of small and microenterprise transformation and upgrading "A". The second level consists of six criterion layers, Enterprise size "B1", product "B2", innovation capability "B3", market "B4", internal management "B5", and industry "B6". The third layer contains 17 indicators in the 6 criteria layer. The details are shown in Figure 1.

Building judgement matrices: The relative importance of each factor at each level is expressed in numerical form. For example, u_{ij} expression of u_i and u_j (*i*, j = 1, 2, 3, ...). The relative importance, take 1, 2, 3,... If u, then u_j percent t_i important, then expressed by countdown, as shown in Table 1.

TABLE 1: Numerical description of the judgement matrix.

Value	Note
1	Representation of two indicators is equally
1	important
3	The former factor is slightly more important than
3	the latter
5	The former is more important than the latter
7	The former is more important than the latter
9	The former is more important than the latter
2, 4, 6, 8	Median value between 1, 3, 5, 7, 9
Countdown	The former is important

According to the aforementioned instructions, the following judgment *U* is constructed as follows:

	u_{11}	u_{12}	• • •	u_{ij}	
<i>I</i> I _	u_{12}	u_{22}	•••	u_{2j}	
0 -	÷	÷	÷	u_{ij} u_{2j} \vdots	ŀ
	u_{i1}	u_{i2}	•••	u_{ij}	

The values in the matrix are scored by expert Delphi method. In order to ensure the scientific and accurate scoring, the author has visited 12 experts from government, enterprises, and other institutions. Through the proposed questionnaire, this paper quantifies the experience of managers and consults with expert group members in accordance with established procedures. Members of the Group submitted their comments anonymously. After two rounds of consultation and feedback, the opinions of the members of the expert group gradually tend to be stable, and the questions are not objective, and the logical questions are removed. Finally, 5 bits of collective judgment with high accuracy are obtained, and the judgment matrix is constructed.

The analysis model is as follows. M experts are set to evaluate n decision-making schemes. The expert decision-making group is expressed as $e = \{E1, E2, \ldots, EM\}$, and the candidate decision-making evaluation scheme is $s = \{S1, S2, \ldots, Sn\}$. Then the evaluation judgment matrix of the k expert is $E_k = [a(k)_{ij}]n * n$.

Based on the expert judgment matrix, the geometric average method is used to construct the comprehensive judgment matrix of the criterion layer for the overall goal, calculate the maximum value of each comprehensive judgment matrix, sort the vector, and test their consistency. Similarly, calculate the comprehensive judgment matrix of each index layer to the criterion layer. The calculation method is $m_{ij} = \sqrt[n]{\prod_{n=1}^{n} A^n a_{ij}}$.

Single-layer weight ranking and consistency test. The weight of each layer is calculated according to the judgment matrix. The importance of the related indexes at this level can be transformed into the calculation of the corresponding matrix eigenvalues and eigenvectors, and the normalized eigenvectors are taken as the weights of the indexes in this layer relative to the upper layer. Owing to the uncertainty, the judgment matrix needs to be checked for consistency. When the consistency index of the judgment matrix is less than 0.1, it shows that the matrix has satisfactory consistency, otherwise it is necessary to adjust the matrix index. 2.4. Policy Incentives for Sustainable Development. Governments tend to use financial subsidies and tax incentives to support the development of small and microenterprises. Financial subsidy is a kind of subsidy established by the government for innovative enterprises and a kind of monetary compensation. The enterprise needs to pass the declaration and qualification review before obtaining the qualification Tax preference is an inclusive policy, not for specific enterprise groups. Through the questionnaire design, we designed and assigned the financial subsidies and tax preferences obtained by enterprises as virtual variables, combined with multiple regression model and enterprise sustainable development factors to analyze the policy effect.

3. Results and Discussion

3.1. Performance Evaluation of Sustainable Development. First, for the overall target of small and microenterprise transformation and upgrading, the relative importance of the six criteria is calculated in Table 2.

We hope to obtain the promotion effect of policy incentives

on sustainable development under different combinations.

 $\lambda_{\text{max}} = 6.0481, \ C \bullet I = 0.00962, \ C \bullet R = 0.0076 < 0.1$

Second, the index weights of the six criteria of the firstlevel, enterprise-scale, industry, innovation, market, internal management, and industry, are calculated, respectively. The index weights of each criterion level are calculated as shown in Table 3.

According to the calculation results of the aforementioned judgment matrix, all matrices pass the consistency test, which shows that each weight index has satisfactory consistency.

Total ranking of final weights: The total ranking needs to be carried out from top to bottom. First, the vector values of 6 criterion layers, product, innovation ability, market, internal management, and industry are calculated. Then the weight value relative to the total target is obtained by multiplying the vector value of the fixed assets, the total industrial output value and the number of employees. The weight value of product, innovation ability, market, internal management, and industry index relative to the total target is calculated. The results are shown in Table 4.

Table 4 shows the influencing factors and weights of the sustainable development system of small and microenterprises. The influencing factors are in order of importance: employee training, responsible person's education level, industry transformation, patent number, industry extension, information level, product technology content, enterprise brand, e-commerce, R&D number, export destination, fixed assets, total finished product value, R&D expenditure, number of employees, total industrial output value, and export delivery value.

For the overall goal of enterprise sustainable development, most enterprises, and experts think that we should pay more attention to internal management, followed by the expansion and extension of industry, and third, innovation ability and products. It may be that the internal management of small and microenterprises is the primary problem of their survival and development, as well as the guarantee of

TABLE 2: Ranking weights B the target layer A in the criterion layer.

Evaluation indicators for sustainable development	Enterprise scale	Products	Innovation capacity	Market	Internal management	Industry	Weight
Enterprise size	1.0000	0.3674	0.2508	0.6084	0.1581	0.2682	0.0493
Products	2.7216	1.0000	0.7248	2.0626	0.3749	0.5818	0.1313
Innovative capacity	3.9874	1.3797	1.0000	1.9744	0.3081	0.6646	0.1546
Market	1.6438	0.4848	0.5065	1.0000	0.2088	0.3155	0.0732
Internal management	6.3253	2.6673	3.2453	4.7894	1.0000	1.8384	0.3778
Industry	3.7279	1.7188	1.5047	3.1698	0.5439	1.0000	0.2138

TABLE 3: Ranking weights of index layer B1 criterion layer.

Enterprise scale B1	Fixed assets	Industrial GDP	Number of employees	Weight	
Fixed assets	1.0000	0.8219	0.5957	0.2538	lmar 2,0060
Industrial GDP	1.2167	1.0000	0.5743	0.2858	$\lambda \max = 3.0060,$ C•R = 0.0058 < 0.1
Number of employees	1.6788	1.7411	1.0000	0.4604	$C \bullet R = 0.0058 < 0.1$
Products B2	Corporate brand	Technical content	Number of finished products	Weight	
Corporate brand	1.0000	0.6310	1.9855	0.3180	λ max = 3.0024,
Technical content	1.5849	1.0000	3.6502	0.5296	$C \bullet R = 0.0024 < 0.1$
Number of finished products	0.5037	0.2740	1.0000	0.1524	$C \bullet K = 0.0024 < 0.1$
Innovative capacity B3	R&D expenditure	R&D	Patent	Weight	
R&D expenditure	1.0000	0.6683	0.1616	0.1214	λ max = 3.0109,
R&D	3.1777	1.0000	0.3309	0.2017	$C \bullet R = 0.0105 < 0.1$
Patent	6.1879	3.0219	1.0000	0.6768	$C \bullet R = 0.0103 < 0.1$
Market B4	Market growth	Market distribution	E-commerce	Weight	
Market growth	1.0000	0.3147	0.2881	0.1298	λ max = 3.0081,
Market distribution	3.1777	1.0000	0.6988	0.3771	$C \bullet R = 0.0078 < 0.1$
E-commerce	3.4713	1.4310	1.0000	0.4931	$C \bullet K = 0.0078 < 0.1$
Management B5	Modern management	Staff training	Management ability of responsible person	Weight	
Modern management	1.0000	0.5000	0.8415	0.2433	
Staff training	2.0000	1.0000	1.1404	0.4274	λ max = 3.0169,
Management ability of responsible person	1.1884	0.8769	1.0000	0.3292	$C \bullet R = 0.0162 < 0.1$
- In duction DC	Industrial	Industrial		Wai al- +	
Industry B6	extension	transformation		Weight	
Industrial extension	1.0000	0.8027		0.4453	λ max = 2.0000,
Industrial transformation	1.2457	1.0000		0.5547	$C \bullet R = 0.0000 < 0.1$

TABLE 4: Summary table.

General	Level 1	Weight	Level 2	DS_i	Weight	Relative weight
			Fixed assets	488	0.4604	0.0227
	B1: Enterprise size	0.0493	Industrial GDP	480	0.5957	0.0125
	-		Number of employees	511	0.5743	0.0141
			Corporate brand	73	0.3180	0.0418
	B2: Products	0.1313	Product technical	155	0.5296	0.0696
			Gross product	409	0.1524	0.0200
	B3: Innovative		R&D expenditure	147	0.1214	0.0188
		0.1546	R&D number	25	0.2017	0.0312
DS evaluation index system for	capacity		Number of patents	122	0.6768	0.1047
sustainable development			Market growth	233	0.1298	0.0095
	B4: Market	0.0732	Market distribution	127	0.3771	0.0276
			E-commerce	35	0.4931	0.0361
			Modern management	501	0.2433	0.0919
	B5: Internal	0.2770	Staff training	156	0.4274	0.1615
	management	0.3778	Management ability of responsible person	307	0.3292	0.1244
	DC. In duration	0.2120	Industrial extension	60	0.4453	0.0952
	B6: Industry	0.2138	Industrial transformation	40	0.5547	0.1186

innovation and products. There are many cases of decisionmaking errors, which is one of the most important evaluation factors for enterprises and experts.

The first three are employee training, responsible person level, and industry transformation, and the results are consistent with those of the criterion level. The results show that small and microenterprises need to solve the talent problem first. Talent is the core element of enterprise internal management. The transformation and upgrading of small and microenterprises can only be promoted by talents. Therefore, strengthening staff training and improving the education level of enterprise leaders is the key to enhance the transformation and upgrading of small and microenterprises.

3.2. Analysis of Policy Effect of Sustainable Development. Through AHP analysis, internal management has become the most important link of enterprise sustainable development. However, the impact of enterprises' contribution to sustainable development in the actual operation process needs to be further tested by quantitative methods. Therefore, by collecting 321 small and microenterprise survey data and combining 2018 to 2019 statistical panel data, this paper uses multiple regression method to analyze the impact of transformation and upgrading.

Measurement of transformation and upgrading of dependent variables: Based on the hierarchical analysis method to obtain the weight of each index of transformation and upgrading, this paper quantitatively calculates the transformation and upgrading, and sets each observation index of transformation and upgrading as the DS_i . The weight value of each index calculated by AHP. W_i and then through the weighted average method summary calculation of the overall transformation and upgrading value DS. Obtained for each transformation or upgrade, the enterprise can get 1 point and 0 point. For the transformation or upgrading of nondivariate variables, this paper will score the average value of variables in stages. Each microindex sustainable development value DS calculation formula is as follows:

$$DS = \sum_{i=1}^{n} W_i DS_i.$$
(1)

We select 12 industry experts to score, including 6 government departments and 6 enterprise experts. There are 6 production managers, technical supervisors, and business operations managers. At the same time, this paper combines the two aspects of enterprise transformation and upgrading, set up three groups: enterprise transformation, enterprise upgrading, and enterprise transformation and upgrading.

In order to reduce the error caused by the data unit, the qualitative evaluation method of grade division is selected. Among them, electronic commerce adopts qualitative index (dummy variable) brings directly into calculation. Staff training is calculated by hierarchical weighted average. The responsible person management ability, modern management, industry extension, industry transformation, enterprise brand, and product technology content are assigned according to questionnaire enterprise self-evaluation opinions. The remaining indicators are divided by 6 grades and assigned by 0~6 points. The scoring basis of experts is shown in Table 5.

Independent variable setting: The selection of independent variables in this paper starts from the enterprise sustainable development performance evaluation system. We select the strategic factors that pay more attention to the performance evaluation of enterprise sustainable development. Considering the independence of independent variables and dependent variables, we try to select objective indicators. In the enterprise internal input, the enterprise mainly tries to asset investment and science & technology investment. The enterprise management ability, the information application level, the employee quality and the enterprise responsible person degree of education are the important influence factors which affect the management efficiency. In the external influence strategy, the dual influence of the market and the government is the main. The export-oriented economic characteristics of small and microenterprises in Zhejiang are remarkable, so export trade and export market are regarded as market factors. The government chooses the tax reduction and fee reduction policy which the Chinese government actively implements at present and takes the financial support and the preferential enjoyment of taxes and fees as the influencing factors.

Based on the aforementioned analysis, we propose the following assumptions:

H1: Enterprise asset investment can promote sustainable development.

H2: Science and technology investment can promote sustainable development.

H3: Enterprise internal management can promote sustainable development.

H4: Foreign trade of enterprises can promote sustainable development.

H5: Government policy support can promote sustainable development.

Model selection and analysis. In this paper, the metrological model is set as a multivariate linear regression model. The models are as follows:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k.$$
 (2)

The β is a fixed value, and x represents the selected independent variables. We select export delivery value (JH), export destination (CK), fixed assets (ZC), information management level (GL), the overall quality of employees (SZ), education background of enterprise leader (XL), science & technology investment (TF), tax concessions (SF), and financial support (CZ) as independent variables. We take transformation value *DS_A*, upgrade value *DS_B*, transformation upgrade value as dependent variables. The regression test coefficient is tested in Table 6.

4. Discussion of Results

Based on the hypothesis of H1, we find that, whether it is enterprise transformation grouping or enterprise upgrading grouping, the regression coefficients of fixed assets are

TABLE !	5:	Expert	scoring	basis.
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Level 1	Level 2	Basis
	Fixed assets	Divide 6 grades and scored according to $0 \sim 6$
B1: Enterprise size	Industrial GDP	Divide 6 grades and scored according to $0 \sim 6$
-	Number of employees	Divide 6 grades and scored according to $0 \sim 6$
	Corporate brand	Assign 0 or 1 by presence or absence
B2: Products	Product technical	Divide 6 grades and scored according to $0 \sim 6$
	Gross product	Divide 6 grades and scored according to $0 \sim 6$
	R&D expenditure	Divide 6 grades and scored according to $0 \sim 6$
B3: Innovative capacity	R&D number	Divide 6 grades and scored according to $0 \sim 6$
	Number of patents	Divide 6 grades and scored according to $0 \sim 6$
	Market growth	Divide 6 grades and scored according to $0 \sim 6$
B4: Market	Market distribution	Assign 0 or 1 by presence or absence
	E-commerce	Assign 0 or 1 by presence or absence
	Modern management	Assign 0 or 1 by presence or absence
B5: Internal management	Staff training	Assign 0 or 1 by presence or absence
C C	Management ability of responsible person	Divide 6 grades and scored according to $0 \sim 6$
B6. In duration	Industrial extension	Assign 0 or 1 by presence or absence
B6: Industry	Industrial transformation	Assign 0 or 1 by presence or absence

significantly positive in all grouping models. This shows that the investment in fixed assets of enterprises has a significant role in promoting transformation and upgrading. This further illustrates the importance of corporate fixed assets in promoting transformation and upgrading.

Based on the hypothesis of H2, we find that, corporate R&D expenditures have positive and negative variables in the model of corporate transformation and transformation and upgrading, and they are not significant. This shows that the innovation investment effect of enterprises is not very good, which may be due to the speculative behavior of enterprises under the influence of government financial support. However, it is significant in Model 10 and Model 12 for enterprise upgrading, which shows that enterprise innovation has certain help to enterprise upgrading.

Based on the hypothesis of H3, we find that, the level of information management, the overall quality of employees and the educational background of enterprise leaders are consistent, regardless of the enterprise transformation group or the enterprise upgrading group. The regression coefficients are significantly positive in all the grouping models, which reflects that the internal management of enterprises has a significant positive effect on enterprise transformation or enterprise upgrading. This further illustrates the importance of internal management in the sustainable development of enterprises. Only the better the internal management, the better the transformation and upgrading of enterprises can be realized, and internal management is the fundamental of enterprise sustainable development.

Based on the hypothesis of H4, we find that, export destinations play a significant role in the transformation and upgrading of small and microenterprises. Model 13 undoubtedly confirms this point, but the effect of export delivery value similar to the previous results on enterprise transformation and upgrading is not clear. Enterprises rely solely on export quantity expansion is not conducive to the transformation and upgrading of enterprises, and may even have negative effects. However, export-developed areas are conducive to promoting the transformation and upgrading of enterprises. Owing to the technical and quality requirements of developed regions, targeted assistance will be given to enterprise product technology, so as to realize the reverse promotion of enterprise products. So small and microenterprises should pay more attention to the export of hightech and high-content products.

Based on the hypothesis of H5, we find that, government financial support has positive and negative variables in the model of enterprise transformation, upgrading, and transformation and upgrading, and they are not significant. Tax reduction and exemption have positive and negative variables in the model of enterprise transformation and transformation and upgrading, and they are both insignificant, while in the model 11 of enterprise upgrading, the tax concessions are significant. This implies that when tax acts alone, it can retain more profits for enterprises, help enterprises grow and reduce operating costs. Tax incentives generally take the form of laws and regulations. The implementation cost is low and the effect is wide. This can reasonably reduce the cost of technological innovation and other aspects, enhance the initiative of enterprises in transformation and upgrading, and thus affect the sustainable development. Although the impact coefficient of SF on DS-A, DS-B, and DS is 0.078, 0.076, 0.106, 0.100, and 0.147, the tax impact is not significant, but it still has a weak driving force for sustainable development.

Policy Analysis: From the perspective of the classification model, at the two levels of transformation and upgrading, the combination of fixed assets, information management level and the overall quality of employees is the best effect of promoting transformation and upgrading. As an independent variable, R&D expenditure has a significant effect on upgrading, but the combined effect with other strategies is not significant. This indicates that R&D expenditure is highly sensitive and lacks robustness. The efficiency of R&D investment of enterprises is not high.

Although the strategic combination of government support and preferential tax and fee promotion has no significant effect, independent variables of tax and fee

TODOTIT	-	7	m	4	5	9	7	×	6	10	11	12	13
Dependent variables	DS_A	DS_A	DS_A	DS_A	DS_A	DS_A	DS_B	DS_B	DS_B	DS_B	DS_B	DS_B	DS
Constant term	0.122^{***}	0.221^{***}	0.290^{***}	0.186^{***}	0.104^{***}	0.358^{***}	0.165	0.301^{***}	0.386^{**}	0.253^{***}	0.139^{***}	0.468^{*}	0.690^{***}
HI	0.085					0.082	0.114					0.108	0.159
CK	0.181					0.177	0.244					0.231	0.341^{**}
ZC		0.063^{**}				0.06^{**}		0.086^{**}				0.080^{**}	0.118^{**}
GL			0.060^{***}			0.063^{**}			0.080^{***}			0.083^{***}	0.062^{***}
ZS			0.103^{***}			0.106^{***}			0.137^{***}			0.139^{***}	0.204^{***}
XL			0.095^{*}			0.099^{*}			0.127^{**}			0.130^{*}	0.191^{*}
TF					0.150	0.148					0.200^{***}	0.194^{*}	0.286
SF				0.078		0.076				0.106^{*}		0.100	0.147
CZ				0.087		0.084				0.118		0.110	0.162
R2	0.009	0.000	0.121	-0.002	-0.001	0.106	0.250	0.400	0.358	0.442	0.410	0.270	0.243
Г	2.014	1.006	10.989	0.821	0.769	3.862	3.749	0.120	14.634	1.487	10.224	5.944	5.944

TABLE 6: Multimultiple linear regression coefficient table.

incentives are significant to the upgrading of enterprises. It shows that the tax and fee policy is being upgraded in the enterprise, which has a good impetus for the increase of R&D expenditure.

In order to improve the level of transformation and upgrading of small and microenterprises, the government needs to coordinate with the endogenous factors of transformation and upgrading of small and microenterprises in the policy mix, so as to make the policy focus on the power point of transformation and upgrading. The government should avoid publishing too many policies and reduce the institutional transaction costs of enterprises. The government needs to design an overall tax and fee preferential system that takes into account fixed assets, information technology and staff training, such as the tax discount for the purchase of fixed assets, the value-added tax deduction for the purchase of information technology services and staff training services. The tax policy of R&D expenditure needs an independent framework design, which is exclusive to the government's financial subsidy policy, so as to avoid the inhibitory effect of the government's direct financial support. At present, the Chinese government is increasing the policy of R&D expense deduction, and our research conclusion is consistent with it. The government also should design positive competition policies, establish a fair and neutral policy environment, avoid huge differences in policies among different industries, reduce system costs and improve market efficiency.

5. Conclusion

5.1. Modern Management Is the Key to the Sustainable Development of Small and Microenterprises. From the research results, internal management has become the primary factor affecting the transformation and upgrading of small and microenterprises. Most of the small and microenterprises are in the initial stage of enterprise development and tend to pay more attention to the development of products and markets. Under the background of mass entrepreneurship and innovation, internal management is the foundation and guarantee of continuous product innovation and market development.

The promotion of internal management needs to start from the awareness of enterprise leaders and cultivate entrepreneurs with modern entrepreneurship. Small and microenterprises need to establish a management environment with modern enterprise system on the whole, and constantly standardize the behavior rules from the aspects of product production process, employee management, market customer relationship, and supplier relationship management. Small and microenterprises should actively adopt advanced management technology tools, enhance the advanced nature of management tools, and establish a good foundation for enterprise operation.

5.2. Innovation Ability Is the Key Driving Force for the Sustainable Development. This study found that only 70 small and microenterprises have R&D expenditures, accounting for 18.51% of the surveyed enterprises. This shows that small and microenterprises are extremely deficient in investment in innovation and insufficient in taking innovation risks. Innovation is a link that requires high investment, uncertain returns, and high risks. For small and microenterprises in the early stages of development, survival is the top priority.

The competition neutral policy should be used to release the innovation vitality of enterprises. The government should establish a universal preferential tax system to stimulate the innovation willingness of small and microenterprises. The government should draw a clear market boundary, reduce direct financial subsidies, and direct intervention in the market. The government should establish a more perfect market mechanism and a fair competition environment. The government should establish a unified tax system, reduce the industry access control, and promote the flow of enterprise innovation resources.

5.3. Fixed Investment Is the Important Means of Sustainable Development. The investment of fixed assets is remarkable for the transformation and upgrading of small and microenterprises. The increase of advanced equipment investment will inevitably bring about the process and the improvement of production efficiency, thus improving the economic benefit. However, after a certain amount of investment, the effect of transformation and upgrading will be reduced, which indicates that the endogenous innovation power of small and microenterprises is insufficient, and the development of new equipment and new technology needs to be absorbed and innovated in order to maintain sustainable development.

The investment of fixed assets requires enterprises to have good future expectations, and the government needs to build a stable and sustainable policy system, such as extending the policy time. In addition, the government should develop the fixed assets leasing market and give more tax incentives to leasing services, so as to make full use of equipment resources among enterprises.

5.4. Open Trade Is the Driving Force of Sustainable Development. The data analysis shows that the more the number of export regions is in Europe, America, or developed countries, the better the sustainable development of enterprises than those without export or export developing countries. However, the insufficient contribution of export delivery value indicates that most of the products from developed regions are at the bottom of the value chain. Although foreign trade has promoted the upgrading of products in a certain sense, the added value of the overall products is low, the technological content is not high, and the main benefits are absorbed by importers.

Products in developed areas often have higher quality standards, which require small and microenterprises to have better production technology to match. The government needs to set more preferential tariffs to promote the growth of orders in developed regions. The Chinese government has established free trade zones in Shanghai, Hainan, Zhejiang, and other regions, which will help small and microenterprises to obtain high value-added products in international trade and improve the production level of small and microenterprises' products.

Based on the aforementioned research, among the factors affecting the sustainable development of small and microenterprises, internal management and innovation have the strongest impact. This paper makes an empirical analysis from the internal and external influencing factors of enterprise sustainable development, breaks through the analysis of single factors in theory, and gives the explanation of enterprise sustainable development from the combination of different dimensions. In practice, it provides an optional combination for the development of small and microenterprises and the design of government policies. The main difference from previous studies is that it does not analyze the impact of a certain factor in isolation, and comprehensively considers the impact of the enterprise's own conditions and external environment. Then, the factors affecting the sustainable development of small and microenterprises are complex and numerous. I cannot bring some random and unobservable factors into the analysis category, and these may produce some important roles, which is the limitation of this paper. How to add some random interference factors to the analysis needs to be further studied.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

References

- Y. Mao, W. Zhang, and W. Weiyu, "Enterprise transformation and upgrading: the frontier area of management research in China - literature research based on SSCI and CSCI (2002-2013)," *Academic research*, vol. 1, pp. 72–82, 2015.
- [2] F. Roberto and V. Andrea, "Technological leadership and persistence in product innovation in the local area network industry 1990-1999," *Research Policy*, vol. 45, no. 8, pp. 1604–1619, 2016.
- [3] C. Antonelli, F. Crespi, and G. Scellato, "Internal and external factors in innovation persistence," *Economics of Innovation and New Technology*, vol. 22, no. 3, pp. 256–280, 2013.
- [4] D. Suárez, "Persistence of innovation in unstable environments: continuity and change in the firm's innovative behavior," *Research Policy*, vol. 43, no. 4, pp. 726–736, 2014.
- [5] Y. Kim and S. S. Lui, "The impacts of external network and business group on innovation: do the types of innovation matter?" *Journal of Business Research*, vol. 68, no. 9, pp. 1964–1973, 2015.
- [6] A. I. N. I. G. O. Edurne and A. L. B. A. R. E. D. A. Laura, "Sustainability oriented innovation dynamics: levels of dynamic capabilities and their path-dependent and

self-reinforcing logics," *Technological Forecasting and Social Change*, vol. 139, pp. 334–351, 2019.

- [7] O. Schilke, S. Hu, C. E. Helfat, and V. Quo, "Dynamic capabilities: a content-analytic review of the current state of knowledge and recommendations for future research," *Social Science Electronic Publishing*, vol. 12, no. 1, pp. 390–439, 2017.
- [8] Z. Ann-Kristin, B. Lokshin, and J. Hagedoorn, "Formal and informal appropriation mechanisms: the role of openness and innovativeness," *Technovation*, vol. 59, pp. 44–54, 2017.
- [9] X. Cao and M. A. Hui, "Simulation analysis of formation of emerging technology "multi-core" innovation network," *Studies in Science of Science*, vol. 37, no. 1, pp. 165–174, 2019.
- [10] X. Cao and M. A. Hui, "Simulation analysis on innovation behavior mechanism of multi-core enterprises under emerging technological innovation network," *China Soft Science*, vol. 6, pp. 138–149, 2019.
- [11] Y. Wang and J. Wang, "Several questions about improving the independent innovation ability of enterprises," *China's soft science*, vol. 7, pp. 10–14, 2005.
- [12] Z. Liu, "The path and brand strategy of China's manufacturing upgrading under the background of globalization," *Study of financial issues*, vol. 5, pp. 25–31, 2005.
- [13] J. S. Gans and S. Stern, "The product market and the market for "ideas": commercialization strategies for technology entrepreneurs," *Research Policy*, vol. 32, no. 2, pp. 333–350, 2003.
- [14] R. M. Cyert and J. G. March, "A behavioral theory of the firm," *Social Science Electronic Publishing*, vol. 4, no. 2, pp. 81–95, 2003.
- [15] S. G. Winter, "The satisficing principle in capability learning," *Strategic Management Journal*, vol. 21, no. 11, pp. 981–996, 2000.
- [16] K. Zhao and S. Xie, "The impact of Government R&D subsidies on R&D investment of enterprises," An Empirical Study Based on Chinese Listed Companies, World Economic Papers, vol. 237, no. 2, pp. 91–108, 2017.
- [17] H. Zhang, "Opportunity or new poverty trap: rural-urban education disparity and internal migration in China," *China Economic Review*, vol. 44, pp. 112–124, 2017.
- [18] G. Liu, Y. Yang, and P. Cao, "Comparative study of tax incentives and financial subsidy incentive effects from the perspective of industrial development - panel data analysis based on the operating performance of listed companies in information technology and new energy industries," *Finance and trade economy*, vol. 36, no. 8, pp. 38-47, 2015.
- [19] S. Shi, G. Zhou, and L. Qin, "The incentive effect of tax incentives on the research and development input and output of Chinese enterprises," *Tax research*, vol. 3, pp. 43-47, 2017.
- [20] M. P. Brown, M. C. Sturman, and M. J. Simmering, "Compensation policy and organizational performance: the efficiency, operational, and financial implications of pay levels and pay structure," *Academy of Management Journal*, vol. 46, no. 6, pp. 752–762, 2003.
- [21] X. Li and D. F. Zhu, "Impact of fiscal and taxation policy fluctuations on transformation and upgrading of China's manufacturing industry: on information asymmetry and goal conflict perspectives," *Finance and Trade Research*, vol. 29, no. 11, pp. 15–30, 2018.

- [22] V. Costantini, F. Crespi, C. Martini, and L. Pennacchio, "Demand-pull and technology-push public support for ecoinnovation: the case of the biofuels sector," *Research Policy*, vol. 44, no. 3, pp. 577–595, 2015.
- [23] A. Zhao and H. Guan, "Simulation and analysis of optimal policy combination for incentive of enterprise environmental technology innovation," *Journal of Management Science*, vol. 31, no. 6, pp. 104–116, 2018.
- [24] M. Station, Research on the Impact of Science and Technology Policy on the Efficiency of High-Tech Industry in China, Doctoral dissertation, Northeast Normal University, Changchun, China, 2019.
- [25] Z. Hu, J. Zhang, H. Ma, J. Xiong, and S. Zhao, "Coordinated analysis of manufacturing transformation and upgrading policy - take Guangdong Su-Oliao as an example," *Scientific and technological progress and countermeasures*, vol. 37, no. 1, pp. 122–128, 2020.
- [26] B. Xu, W. Song, X. Gao, and Y. Zhang, "Research on the science and technology policy coordination of China' s yangtze river delta," *American Journal of Industrial and Business Management*, vol. 9, no. 4, pp. 875–885, 2019.