



# Research on Comprehensive Evaluation of Strategic Emerging Industries Operational Status Based on Interpretative Structural Model

Xinlei Zhang<sup>1,a\*</sup>, Yongchao Liu<sup>2,b</sup>, Jingce Xu<sup>3,c</sup>

<sup>1</sup>North China Electric Power University ,Beijing China

<sup>2</sup>State Grid Chongqing Economic Research Institute, Chongqing China

<sup>3</sup>State Grid Energy Research Institute ,Beijing China

{120222206061@ncepu.edu.cn<sup>a\*</sup>, 1375982544@qq.com<sup>b</sup>,  
1511548058@qq.com<sup>c</sup> }

**Abstract.**In order to accurately identify the operational status of strategic emerging industries and promote their further development, this paper proposes a comprehensive assessment model of the operational status of strategic emerging industries based on the interpretative structural model to evaluate the operational status of various strategic emerging industries. Firstly, this paper analyzes the factors influencing the operating status of strategic emerging industries, and establishes the operating status detection index system of strategic emerging industries. Secondly, Using the entropy weight method to calculate the scores of each index in the index system, and then the scores of various strategic emerging industries in different dimensions are determined. Then, the interpretative structural model is used to describe the four stages of strategic emerging industries' operating status, analyze the current operating status of various strategic emerging industries, and give corresponding countermeasures and suggestions. Finally, the reasonableness and validity of the model are studied through a numerical example.

**Keywords:**interpretative structural modeling method, strategic Emerging Industries, status evaluation, entropy weight method

## 1 Introduction

Strategic emerging industry is an industry that plays a major leading role in overall economic and social development and long-term development based on major cutting-edge technological breakthroughs and major development needs [1]. In recent years, with the continuous enhancement of China's economic level and scientific research ability, strategic emerging industries have also been rapidly developed, and their competitiveness and innovation have been further strengthened, representing the future development direction of China's science and technology and industry [2]. At

present, scholars' research on strategic emerging industries mainly focuses on the judgment of their operating status and comprehensive evaluation.

In terms of operation status judgment, literature [3] conducted a comprehensive data analysis on the research of dockless shared bicycles from the individual micro-level and enterprise government level. Literature [4] analyzed the financial data of 2018-2020 from three aspects: solvency, operating capacity and profitability. Finally, from the advantages, disadvantages, opportunities and threats, the current situation of the enterprise is analyzed, and development suggestions are given. Literature [5] selected 13 indicators according to solvency, profitability, operating capacity and growth capacity, combined with entropy weight method and TOPSIS method to establish a comprehensive evaluation model, and analyzed the situation of enterprises in the past 12 years. Literature [6] analyzed the sustainable development status of small and micro enterprises in five major manufacturing industries, and established 16 sustainable development indicators covering economy, society and environment to evaluate the sustainable development status of enterprises. Literature [7] uses SWOT analysis and financial index analysis to study the development factors of Datong Sun Pharmaceutical from two aspects of management mechanism and financial information, reflecting the performance transformation level, financing difficulties, management defects and other development obstacles, and further puts forward countermeasures and suggestions.

In terms of comprehensive evaluation model, literature [8] combines the entropy method decision trial and evaluation laboratory analysis with TOPSIS model, and proposes a multi-criteria decision model to analyze the causal relationship between financial ratio and corporate financial performance. In literature [9], an early warning index system capable of detecting and identifying enterprise financial risks was established, and a financial early warning model based on fuzzy comprehensive evaluation model and random forest algorithm was constructed by using fuzzy comprehensive evaluation model and random forest algorithm integration model. In literature [10], a supplier evaluation index system was constructed and suppliers were ranked by a comprehensive evaluation model based on entropy weight and Topsis method. Literature [11] uses RSR rank sum ratio comprehensive evaluation method and TOPSIS method to evaluate the importance of suppliers. Literature [12] measures the synergy effect obtained by M&A enterprises from the perspective of performance change, establishes an evaluation model through the change rate of financial indicators and transfer learning, and estimates it through the neural network model. Literature [13] uses fuzzy analytic hierarchy process (AHP) and preference ranking organization method to optimize the available smart phone models in the market, and uses multi-criteria decision-making technology to solve, so that mobile users can choose the best smart phone model.

In conclusion, the current research on enterprise operation status mostly focuses on economic indicators and pays more attention to economic development, while there are few studies on evaluation indicators of other dimensions. In addition, the traditional comprehensive evaluation method is mainly based on the score ranking as the evaluation standard, which is difficult to accurately evaluate the operation status of strategic emerging industries. Based on this situation, this paper first constructs the

operating status detection index system of strategic emerging industries. Besides the economic benefit dimension, the influence of industrial innovation degree, industrial growth advantage degree and industrial driving degree is integrated. Secondly, this paper puts forward a comprehensive evaluation model of operation status based on interpretative structural model, and evaluates the operation status of strategic emerging industries by combining life cycle theory, and adopts entropy weight method to solve the subjectivity of traditional interpretation evaluation model. Finally, this paper selects the operation data of some strategic emerging industries from 2018 to 2021, and verifies the rationality and effectiveness of the comprehensive evaluation model constructed in this paper through numerical examples..

## **2 Index System of Factors Influencing the Operation Status of Strategic Emerging Industries**

### **2.1 Factors Influencing Operation Status**

Strategic emerging industries, based on scientific and technological innovation, have vast market prospects and demands and great growth potential. In addition, it is a green and low-carbon industry with low demand for resources and energy and strong capacity for sustainable development. At the same time, its own development advantages are obvious, the overall economic driving effect is obvious, which brings great benefits, and plays a key role in the optimization and upgrading of our country's industrial structure. Therefore, the operation status of strategic emerging industries is mainly affected by four factors: industrial innovation, industrial growth advantages, industrial driving effect and comprehensive benefits.

#### **2.1.1 Industrial Innovation**

Technological breakthrough and innovation are the foundation of strategic emerging industries. The vigorous development of the industry relies on the continuous progress and innovation of technology. With the advanced technology of revolutionary and remarkable innovation ability means has the advanced productive forces. As a strategic emerging industry, mastering key technologies and independent intellectual property rights is the dual embodiment of its strategic and emerging. At the same time, strategic emerging industries are also endowed with the characteristics of knowledge and technology intensive

#### **2.1.2 Industrial Growth Advantages**

The background of strategic emerging industries is to promote the upgrading of China's economic structure, especially to alleviate the increasingly serious pressure on resources and environment. Strategic emerging industries have unique advantages: First of all, it can be seen that the key development of energy conservation and environmental protection industry, new energy, new materials, new energy automobile industry, etc., aims to solve the problems of resources and energy, while other indus-

tries consume less material resources and have strong sustainable development ability; Secondly, the new generation of information technology industry, high-end equipment manufacturing industry, biological industry and other markets have good development and high added value. It will become the pillar industries of the national economy in the future, with great development potential. Finally, strategic emerging industries have a huge potential market and a large increase in market demand, which provides an emphasis on the long-term development of strategic emerging industries.

### **2.1.3 Industrial Driving Effect**

The industrial driving effect is an important function of strategic emerging industries, strategic emerging industries have a greater influence on other industries, and their contribution rate to regional economic growth usually reach a high level. Moreover, through technological diffusion and industrial diffusion, it can drive the development of other industries, thereby enhancing the overall economic strength of the region.

### **2.1.4 Comprehensive Benefits**

In developing strategic emerging industries, the state attaches particular importance to comprehensive benefits, paying attention to economic benefits as well as social and environmental benefits. Social benefit is the contribution made to social development, social security and stability. First of all, it can provide enough jobs, have a certain employment absorption capacity, and ensure the welfare of workers. And, through technological upgrading, transformation and other means to effectively improve labor productivity. Environmental benefits refer to the positive benefits brought to the environment, such as effectively reducing dependence on substances and resources, reducing pollutant emissions, and alleviating the pressure on resources and energy through the use of new technologies and new energy. Finally, strategic emerging industries also require economic efficiency and strong profitability. It is required that the development of industry should be coordinated with social development and adapt to environmental development.

## **2.2 Operation Status Detecting Index System**

This paper constructs a evaluation index system of the operation status of strategic emerging industries based on the factors that affect the development ability of strategic emerging industries, and is constructed from four dimensions, namely, the degree of industrial innovation, the degree of industrial growth advantage, the degree of industrial driving effect and the degree of comprehensive benefit. According to the connotation and characteristics of strategic emerging industries, absorbing relevant contents at home and abroad, and constructing a comprehensive evaluation model reflecting the operation status of strategic emerging industries according to the principles of comparability, scientificity, feasibility and comprehensiveness of the index system. Finally, the evaluation index system framework of strategic emerging indus-

try development ability composed of 4 first-level indicators and 12 second-level indicators is designed, as shown in Table 1.

The industrial innovation degree of strategic emerging industries is mainly reflected by the intensity of R&D investment, the level of core technology and the number of professionals. The industrial growth advantage degree is mainly reflected by three indicators: energy consumption per 10,000 yuan of output value, elasticity of demand income and growth rate of industrial added value. The driving effect of industry is mainly reflected by three indicators: the proportion of scale, the contribution rate of industry to GDP, and the percentage of industrial growth driven by strategic emerging industries. The comprehensive benefit is mainly reflected by three indicators: labor productivity, employment absorption capacity, cost and expense profit rate.

**Table 1.** Strategic Emerging Industry Operating Status Evaluation Index System

Target layer	Principle layer	Index layer
Operation status of strategic emerging industries	Industrial innovation degree	R&D Input intensity $X_1$
		Core technical level $X_2$
		Professional talent quantity $X_3$
	Industrial growth advantage degree	Energy-production ratio $X_4$
		Demand income elasticity $X_5$
		Industrial growth rate $X_6$
	Industrial driving effect degree	Industry proportion $X_7$
		GDP contribution $X_8$
		Industrial value-added driving rate $X_9$
	Comprehensive benefit degree	Labor productivity $X_{10}$
		Employment absorption $X_{11}$
		Profit rate $X_{12}$

### 2.2.1 Industrial Innovation Degree

#### 2.2.1.1 R&D Input intensity.

The amount of R&D investment is an important guarantee for the continuous development and upgrading of strategic emerging industries, and is also an important manifestation of their scientific and technological research and development capabilities. R&D investment intensity is an important index to measure the R&D level, R&D ability and technology level of a country or region. For strategic emerging industries, the calculation method of R&D investment intensity is the ratio of R&D investment expenditure of strategic emerging industries to the operating income of strategic emerging industries.

#### 2.2.1.2 Core technical level.

The core technical level can reflect the achievements of national or regional scientific and technological research and development. The index mainly refers to the proportion of invention patent applications of strategic emerging industries in the total number of patent applications in the region.

### 2.2.1.3 Professional talent quantity.

The quantity of professional talent can reflect the scale of national or regional R&D personnel investment, professional talent are the core force of scientific and technological innovation, but also the intellectual basis for the development of strategic emerging industries. This index is the value of the number of R&D personnel in strategic emerging industries in the number of employees in strategic emerging industries.

## 2.2.2 Industrial Growth Advantage Degree

### 2.2.2.1 Energy consumption per 10,000 CNY of production.

The energy consumption per 10,000 CNY of production is an index to measure the sustainable development ability of strategic emerging industries. Advocating green production and green economy is one of the endogenous growth advantages of strategic emerging industries. The energy consumption of 10,000 yuan output value reflects the degree of energy consumption of unit industrial added value. The calculation method is as follows:

$$\text{energy} - \text{production ratio} = \frac{\text{Industry energy consumption}}{\text{Industry production}} \quad (1)$$

### 2.2.2.2 Demand income elasticity.

Demand income elasticity is the degree of impact of changes in national income on changes in sales volume, which is used to measure the growth potential of strategic emerging industries. The formula is as follows:

$$\text{Demand income elasticity} = \frac{\text{industry demand change}}{\text{national income per capita}} \quad (2)$$

### 2.2.2.3 Industry growth rate.

This index is an indicator to measure the degree of change in industrial added value, and it is also an indicator to measure the growth potential of strategic emerging industries. Its calculation formula is as follows:

$$\text{industry growth rate} = \frac{\text{current year output growth}}{\text{last year output grow}} \quad (3)$$

## 2.2.3 Industrial Driving Effect Degree

### 2.2.3.1 Industry proportion.

Industry proportion is an indicator to measure the total scale of strategic emerging industries, and its formula is as follows:

$$SP = \sum (OP_i \times Op_i) \quad (4)$$

Where:  $OP_i$  represents the ratio of each sub-sector of strategic emerging industries to GDP, and  $Op_i$  represents the ratio of each sub-sector of strategic emerging industries to the output value of emerging industries.

#### 2.2.3.2 GDP contribution.

$$GDP \text{ contribution} = \frac{GDP \text{ growth of strategic emerging industries}}{GDP \text{ growth of region}} \quad (5)$$

#### 2.2.3.3 Industrial value-added driving rate.

$$Industrial \text{ value-added driving rate} = \frac{\text{growth of industrial added-value}}{\text{previous industrial added-value}} \quad (6)$$

### 2.2.4 Comprehensive Benefit Degree

#### 2.2.4.1 Labor productivity.

$$Labor \text{ productivity} = \frac{\text{Output value of strategic emerging industries}}{\text{Employees of strategic emerging industries}} \quad (7)$$

#### 2.2.4.2 Employment absorption.

$$Employment \text{ absorption} = \frac{\text{Employees of strategic emerging industries}}{\text{Employees of region}} \quad (8)$$

#### 2.2.4.3 Profit rate.

$$profit \text{ rate} = \frac{\text{Industry profit}}{\text{Industry sales}} \quad (9)$$

## 3 Operational Status Evaluation Model of Strategic Emerging Industries

### 3.1 Entropy Weight Method

As entropy weight method is a objective way to determine the weight of indicators through the amount of information, it can reduce the deviation caused by subjective factors when determining the weight of indicators, so that the result is more realistic, so this paper uses entropy weight method to determine the weight of indicators. The entropy value can be used to determine or evaluate the degree of change in the index system. If the degree of change to an indicator is large, it means that the weight of the indicator is small, and vice versa, it is large. The specific steps are as follows:

### 3.1.1 Standardization of Indicators

In the evaluation system, different indexes usually have different dimensions because of their different properties. In order to eliminate the influence brought by different dimensions and ensure the reliability of the results, this paper adopts the range method to standardize the index value, making it between [0-1] :

$$r_{ij} = \frac{x_{ij}}{\sum_{j=1}^n x_{ij}} \quad (10)$$

Where,  $x_{ij}$  is the score of the  $i$  evaluation object in the  $j$  index.  $r_{ij}$  is the standardized score..

### 3.1.2 Index Entropy Calculation

The entropy value is calculated as shown in equation (11) :

$$e_i = -\frac{\sum_{j=1}^n r_{ij} \times \ln r_{ij}}{\ln n} \quad (11)$$

Where,  $e_i$  is the entropy value of the  $i$  evaluation object;  $n$  is the number of evaluation objects.

### 3.1.3 Index Weight Determination

The calculation method of index weight is shown in Equation (12) :

$$w_i = \frac{1 - e_i}{\sum_{i=1}^m (1 - e_i)} \quad (12)$$

Where,  $w_i$  is the weight calculated by entropy weight method.

## 3.2 Operational State Evaluation Model

### 3.2.1 Operation Phase Division

#### 3.2.1.1 Import phase.

Key words: weak

Stage characteristics: The level of work development in this stage is not high, the level of development is low and does not show an upward trend. The human resources of the work organization are insufficient, the scale is small, the corresponding rules



and regulations are lacking, the policy support is not enough, and the work effect is not obvious. The work in this stage needs to be developed urgently.

#### *3.2.1.2 Growth stage.*

Key words: Development

Stage characteristics: The work at this stage gradually developed from weakness and began to develop upward, but the starting point of development was low. The work system has been established, human resources have been supplemented, employees' enthusiasm for work is high, the state provides policy support, and the effect of work promotion measures has become apparent. This phase of the work needs to continue to focus on development.

#### *3.2.1.3 Maturity stage.*

Key words: Prosperity

Stage characteristics: At this stage, the work has identified the development path and continues to mature, and the level of work development is high and continues to develop upward. The work system is gradually improved, the national policy continues to support, and the work effect is obvious. At this stage, the development of the work is relatively stable, and further experience needs to be summarized.

#### *3.2.1.4 Transition stage.*

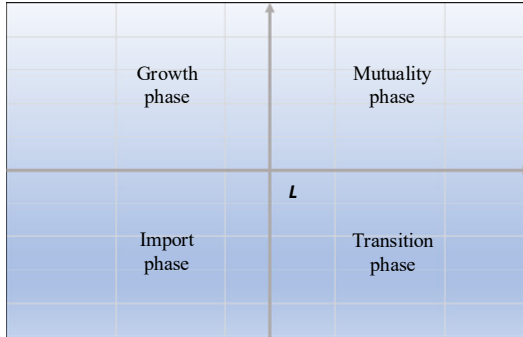
Key words: Breakthrough

Stage characteristics: At this stage, the work is in a relatively high level of development, but there is a trend of stagnation or retrogression. Adhere to the consistent work system, adopt the consistent work measures, but employees appear slack or dissatisfaction, the work effect has no obvious positive change. This stage lasts for a long time, opportunities and challenges coexist, it is necessary to adjust the development direction or development strategy as soon as possible, find a breakthrough, and overcome the transition period. After this, the work has a new development goal, a new mode of operation, a new implementation strategy, and the organization enters the next introduction stage, but the level of development is different from the previous round of introduction stage. The life cycle of the organization begins the next cycle, continuing the spiral of ladder development.

### **3.2.2 Interpretative Structural Model**

The operational state evaluation model established in this paper is based on the organizational life cycle theory, and on the premise of following the general methodology, certain evaluation views and evaluation standards, the above theoretical assumptions are proposed for the development stages of various strategic emerging industries. The collected data of strategic emerging industries are abstracted, summarized, hypothesized and simplified, and the mathematical structure is established by using appropriate mathematical methods and tools, so as to judge the development stage of each strategic emerging industry, explain its development characteristics, and put forward countermeasures and suggestions.

The interpretative structural model adopts the two-dimensional standard, and takes the evaluation score of the operational status monitoring index of strategic emerging industries as " longitude ", and the score increment range of this index after a one-year cycle as "latitude". The "longitude" and "latitude" cross constitute the model network, and each quadrant represents different stages of development. The (x,y) determines the development stage of strategic emerging industries. The interpretative structural model network of the development stage of strategic emerging industries is shown in Fig.1.



**Fig. 1.** Development phase evaluation interpretative model network

3.2.2.1 *Initial level (X-axis).*

x represents the evaluation scores of different dimensions of the operational status of strategic emerging industries. Its axis scale interval is [a, b], where a represents the minimum score of the initial level of evaluation for each dimension of the operating state of strategic emerging industries, and b represents the maximum score of the initial level of evaluation for each dimension of the operating state of strategic emerging industries.

3.2.2.2 *Increment range (Y-axis).*

y represents the value-added range of a certain dimension of the operating status of strategic emerging industries in a one-year cycle. The Y-axis scale interval  $(-\infty, +\infty)$  indicates the possible progress or regression of strategic emerging industries after the development of different dimensions of their operating status. When some work achieves good results,  $y \in [0, +\infty)$ ; when some work does not develop but regress,  $y \in (-\infty, 0]$ .

**4 Example Analysis**

By consulting statistical yearbooks, industry annual reports and relevant data from the National Bureau of Statistics, this paper collected 2018-2021 relevant data of six strategic emerging industries, including integrated energy services, energy storage, Bei-dou system, 5G industry, electric vehicles and intelligent terminals. The index system involving industrial innovation degree, industrial growth advantage degree, industrial driving effect degree and comprehensive benefit degree is constructed, including the

number of patent applications for emerging industries, the number of patent applications for regional industries, scientific research and innovation funds, total revenue of business, the number of scientific research and innovation people, and the number of people in emerging industries.

Firstly, each index score is calculated from the basic data. Subsequently, the score of each index is normalized to eliminate the dimensional influence. The weight value of each dimension index can be calculated by using the entropy weight method, as shown in Table 2:

**Table 2.** Weights Calculation of Operation Status Indicators

Principle layer	Index layer	Index Score
Industrial innovation degree	R&D Input intensity $X_1$	0.7452
	Core technical level $X_2$	0.1150
	Professional talent quantity $X_3$	0.1398
Industrial growth advantage degree	Energy consumption per 10,000 CNY of production $X_4$	0.3337
	Demand income elasticity $X_5$	0.2537
	Industrial growth rate $X_6$	0.4126
Industrial driving effect degree	Industry proportion $X_7$	0.3734
	GDP contribution $X_8$	0.3422
	Percentage of growth driven by strategic emerging industries $X_9$	0.2844
Comprehensive benefit degree	Labor productivity $X_{10}$	0.5441
	Employment absorption $X_{11}$	0.2746
	Profit rate $X_{12}$	0.1813

Based on the weight calculation results of each dimension index in the above table, the scores of strategic emerging industries in each dimension can be obtained, as shown in Table 3.

**Table 3.** Strategic Emerging Industry Operation Status Evaluation Results

Strategic emerging industries	Year	Evaluation index				Annual score	Total score	Increment range
		Industrial innovation degree	Industrial growth advantage degree	Industrial driving effect degree	Comprehensive benefit degree			
Integrated energy services	2018	0.1258	0.0474	0.1335	0.1265	0.1083	0.0977	0.1193
	2019	0.1065	0.0378	0.1920	0.1466	0.1207		
	2020	0.1195	0.1727	0.2036	0.1575	0.1633		
	2021	0.3048	0.2258	0.2252	0.1546	0.2276		
Energy storage	2018	0.0537	0.0098	0.0929	0.1356	0.0730	0.1020	0.1275
	2019	0.0359	0.2565	0.1550	0.1076	0.1388		
	2020	0.0953	0.3243	0.2284	0.1370	0.1963		
	2021	0.0629	0.4080	0.2060	0.1250	0.2005		
Beidou system	2018	0.1088	0.1518	0.1503	0.0832	0.1235	0.1426	0.0096
	2019	0.1384	0.2938	0.2174	0.1072	0.1892		

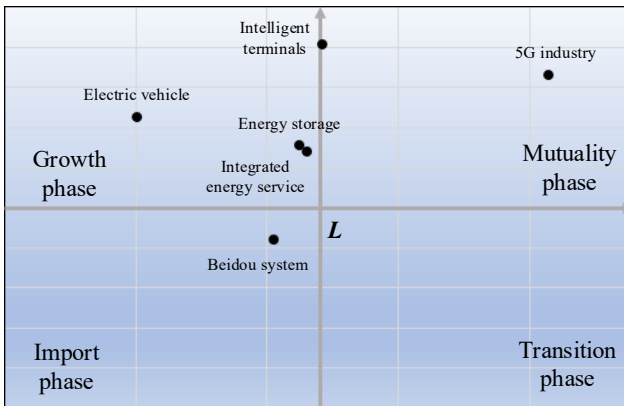
	2020	0.2845	0.0454	0.0753	0.0939	0.1248		
	2021	0.2391	0.0325	0.1490	0.1118	0.1331		
5G industry	2018	0.2471	0.0324	0.0983	0.2196	0.1493	0.2471	0.2155
	2019	0.1283	-0.0191	0.0205	0.1888	0.0796		
	2020	0.1278	0.8366	0.4086	0.2055	0.3946		
	2021	0.2200	0.4032	0.4811	0.3551	0.3649		
Electric vehicles	2018	0.0916	0.1094	0.0394	0.0344	0.0687	0.0904	0.1625
	2019	0.0270	-0.0256	-0.0063	0.0304	0.0064		
	2020	0.0681	0.0846	0.0278	0.0404	0.0552		
	2021	0.0523	0.6476	0.1939	0.0309	0.2312		
Intelligent terminals	2018	0.2814	-0.4001	-0.0049	0.2860	0.0406	0.1509	0.2537
	2019	0.1857	-0.0013	0.1297	0.0309	0.0862		
	2020	0.3701	0.1259	0.3025	0.0939	0.2231		
	2021	0.3062	0.2008	0.3149	0.3551	0.2943		

Based on the calculation results in Table 3, the coordinate values of the evaluation and interpretation structure model in the development stage of strategic emerging industries can be calculated, as shown in Table 4 below:

**Table 4.** Coordinate of Strategic Emerging Industry Development Phase

Development phase	Initial level (x)	Increment range (y)
Import phase	[0.04, 0.16]	$(-\infty, 0.05]$
Growth phase	[0.04, 0.16]	$[0.05, +\infty)$
Maturity phase	[0.16,0.28]	$[0.05, +\infty)$
Transition phase	[0.16,0.28]	$(-\infty, 0.05]$

Based on the evaluation scores and coordinate values of each strategic emerging industry's operating status, the interpretive model network diagram of the development stage of strategic emerging industries from 2018 to 2021 can be obtained, as shown in Fig.2:



**Fig. 2.** 2018-2021 strategic emerging industry development phase evaluation

Based on Fig.2, it can be seen that the six types of strategic emerging industries studied in this paper are in different development phase. The Beidou system industry is currently in the import phase, indicating that the current development level of the Beidou system industry still needs to be improved; strategic emerging industries such as electric vehicles, energy storage and integrated energy services are in the growth phase, indicating that these three industries have developed rapidly in recent years, the work have achieved certain results, and the industries have been developing rapidly, but the development level is not high yet; The intelligent terminals and 5G industry are in mutuality phase, indicating that the development speed and development level of these two industries have reached a high level in their related fields, completed the construction of a mature industrial system, and can better achieve profit and drive surrounding industries. The explanatory model report of the development stage of each strategic emerging industry is shown in Table 5.

**Table 5.** Strategic Emerging Industry Development Phase Evaluation and Interpretation Model Report

Development phase	Interpretation principle	Suggestion
Import phase	(1) The development level of this work is not high; (2) This work has not been developed in recent years; (3) The level of attention of decision-makers may not be enough; (4) There may be insufficient policy support for this work; (5) The relevant team may not be perfect; (6) There may be deviations in the target positioning and measure formulation of this work.	(1) Analyze the problems from the perspectives of environmental factors, decision making and decision maker support; (2) Analyze the negative impact of the work at this stage on the future development; (3) Establish the needs of reform; (4) Formulate the objectives and policies of this work reform, and provide policy support; (5) Prepare the resources required for the reform of this work, and increase the input of human, material and financial resources; (6) Analyze the development strategy of this work reform and clarify the measures; (7) Pay attention to the evaluation results and value-added range of the next year.
Growth phase	(1) The initial level of the development of this work is low for the strategic emerging industry itself; (2) The development speed of this work in recent years is fast, and it needs to focus on development; (3) The previous goal-setting and implementation strategies	(1) Sort out the implementation strategy of the development of this work in recent years and determine the main promotion measures; (2) Find out the explicit and internal effects brought about by the rising trend of this work; (3) Ensure policy support for this work; (4) Adjusting the development

	<p>for this work may have been inadequate;</p> <p>(4) The work may have adjusted its objectives and initiatives in recent years;</p> <p>(5) The measures taken in this work in recent years may be more realistic and have better results;</p> <p>(6) Members of the work may have expectations about the development of the work;</p> <p>(7) The internal members of this work may be highly motivated.</p>	<p>measures of this work in the areas of management, teaching, culture and science and technology;</p> <p>(5) Increase human, material and financial input in this work;</p> <p>(6) Strengthen the technical training of relevant personnel.</p>
Maturity phase	<p>(1) The development of this work has always been at a high level for itself;</p> <p>(2) In recent years, this work has maintained a stable upward development trend, and the development is mature;</p> <p>(3) The state may have been more supportive in policy;</p> <p>(4) The human, material and financial input of the State in this work may remain large;</p> <p>(5) The internal members of this work may hold a stable and positive attitude towards the development of this work;</p> <p>(6) This work The promotion measures of this work are more effective, and the operation mode is more mature.</p>	<p>(1) The development of this work has always been at a high level for the emerging industry itself;</p> <p>(2) In recent years, this work has maintained a stable upward development trend, and the development is relatively mature;</p> <p>(3) The state may have been more supportive in policy;</p> <p>(4) The human, material and financial input of the State in this work may remain large;</p> <p>(5) The internal members of the industry may hold a stable and positive attitude towards the development of this work;</p> <p>(6) The promotion measures of this work are more effective and the operation mode is more mature.</p>
Transition phase	/	/

## 5 Conclusion

This paper takes the operation status of strategic emerging industries as the assessment object, comprehensively considers the degree of industrial innovation, the degree of industrial growth advantage, the degree of industrial driving effect, the degree of comprehensive benefit dimensions, and constructs the detection index of the operation status of strategic emerging industries. On this basis, entropy weight method is used to quantify the impact of each dimension index on the operation status of strategic emerging industries. Finally, a comprehensive evaluation model of the operation status of strategic emerging industries was constructed, and the following conclusions were obtained through the example analysis:

(1) Compared with the traditional interpretation structure model, in which each index is directly scored subjectively, this paper constructs an index weight calculation method based on entropy weight method. The more objective entropy weight method is used to calculate the index weight, which improves the objectivity and accuracy of the evaluation results.

(2) The operation status of the six types of strategic emerging industries analyzed in this paper is mainly in the introduction stage, growth stage and maturity stage, and relevant development countermeasures and suggestions are given for different operation stages. Among them, the intelligent terminal and 5G industries have developed more mature, while the other emerging industries need the government to increase relevant policy support and investment.

In conclusion, the strategic emerging industries proposed in this paper can well assess the operating status of different industries, and give development countermeasures and suggestions of strategic emerging industries in different states, providing theoretical support for the judgment of the operating status of strategic emerging industries and their future development.

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