Analysis of Key Success Factors for World-Class Information Technology Enterprises Based on the DEMATEL-ISM Model

Hongtao Chen[1], Qian Du[2], Lianjia Ren[3]*, Yaqing Yang[4], Chengcheng Wu[5]

[1]China Mobile Communications Group Co., Ltd, No. 29, Financial Street, Xicheng District, Beijing, 100032, China.
[2]China Mobile Communications Group Co., Ltd, No. 29, Financial Street, Xicheng District, Beijing, 100032, China.
[3]China Mobile Research Institute, No. 32, Xuanwumen West Street, Xicheng District, Beijing, 100032, China.
[4]China Mobile Research Institute, No. 32, Xuanwumen West Street, Xicheng District, Beijing, 100032, China.
[5]China Mobile Communications Group Co., Ltd, No. 29, Financial Street, Xicheng District, Beijing, 100032, China.

[1]chenhongtao@chinamobile.com,[2]duqian@chinamobile.com,[3*]renlianjia@chinamobile.com,[4]yangyaqingzl@chinamobile.com,[5]wuchengcheng@chinamobile.com

Abstract. The 19th National Congress of the Communist Party of China explicitly proposed the need to "cultivate world-class enterprises with global competitiveness." Therefore, this paper focuses on the information technology industry. By studying the development examples of leading information technology companies, it identifies the key success factors for technological innovation in world-class enterprises. Based on a systematic methodology, the paper constructs a multi-level hierarchical structure model of key success factors for world-class information technology enterprises using the DEMATEL-ISM method. This model intuitively displays the interrelationships and causal pathways among various factors. Furthermore, based on the analysis of model results, the paper proposes a graded optimization plan, providing valuable insights for nurturing world-class information technology enterprises.

Keywords: World-class enterprises, information technology, success factors, DEMATEL, ISM

1 INTRODUCTION

The nation places great emphasis on accelerating the construction of world-class enterprises within its corporate landscape. The 19th National Congress of the Communist Party of China explicitly called for the "cultivation of globally competitive world-class enterprises," while the 20th National Congress further emphasized the need

V. Vasilev et al. (eds.), *Proceedings of the 2024 5th International Conference on Management Science and Engineering Management (ICMSEM 2024)*, Advances in Economics, Business and Management Research 306,
https://doi.org/10.2991/978-94-6463-570-6_60

to “improve China’s modern enterprise system, promote entrepreneurial spirit, and accelerate the establishment of world-class enterprises.” Currently, Chinese enterprises are rapidly enhancing their global competitiveness and are on the path toward becoming world-class entities. Emerging sector companies have the potential to achieve rapid leapfrog development[1]. In emerging sectors, the information technology industry stands out as one of the most dynamic over the past decade.On one hand, analyzing the changes in the top 10 global market capitalization companies over a decade (as shown in Figure 1), we observe significant shifts in industry prominence. The darlings of the capital market have transitioned from traditional sectors such as finance, energy, and telecommunications to the information technology industry. According to PwC’s global ranking of publicly traded company stock market values, information technology enterprises consistently occupy 7 out of the top 10 positions in global market capitalization between 2020 and 2023, garnering substantial market recognition. By 2023, technology giants like Apple, Microsoft, and Google have all surpassed the trillion-dollar mark in market valuation. On the other hand, China still faces critical bottlenecks in information technology foundational hardware and software areas, including chips and operating systems. These bottlenecks constrain the transformation and upgrade of traditional industries. Accelerating the cultivation of world-class information technology enterprises is not only a crucial step in implementing major national strategies but also a key pathway for global competition. It represents a pivotal effort to break through industrial development barriers and secure proactive control over future growth.

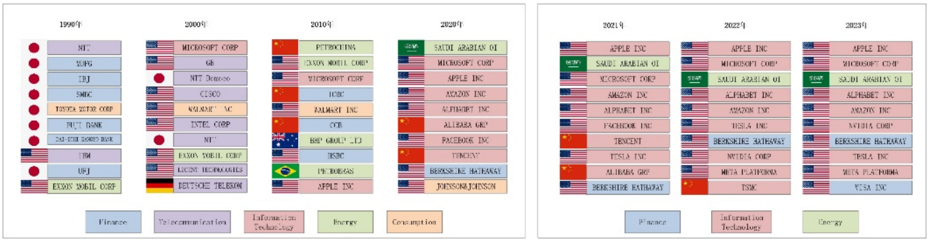

Fig. 1. Global Market Cap Top 10 Changes

Reviewing the academic perspectives on world-class enterprises, research has primarily focused on areas such as concept definition [2-4], specific identification and development paths [5-6], evaluation systems [7-8]. The emphasis has been on exploring the inherent growth patterns of enterprises by studying the core characteristics of world-class enterprises or providing guidance for fostering such enterprises through the establishment of clear evaluation indicators. However, most studies have not significantly differentiated between differences among industries. There is a relative lack of research specifically exploring how to grow into a world-class enterprise from the perspective of enterprise development in specific industry domains. Therefore, this article chooses to focus on the information technology industry, aiming to investigate the key factors influencing the development of leading enterprises in this industry. What are the mechanisms through which these factors operate during the enterprise development process? To quantitatively analyze the operating mechanisms of various factors, this paper adopts the DEMATEL-ISM model method to identify and analyze the influencing factors in the development of world-class information technology enterprises. The DEMATEL-ISM model is commonly used for the analysis and decision-making of complex systemsand has been applied in various fields such as transportation [9], environment [10], business [11]. Through the DEMATEL-ISM model, a hierarchical structural model of influencing factors can be obtained, providing in-depth insights into the hierarchical relationships and impact degrees of various factors. This, in turn, offers a more practical theoretical reference for fostering the development of world-class information technology enterprises.

2 KEY SUCCESS FACTORS FOR WORLD-CLASS INFORMATION TECHNOLOGY ENTERPRISES

To cultivate world-class enterprises, it is essential to establish an efficient innovation management system centered around technological innovation [12]. Examining the development examples of information technology industry leaders such as Apple, Microsoft, and Google reveal that their success significantly relies on technological breakthroughs. For instance, Apple's iPhone, with its touch screen interface, multitouch capabilities, smooth operating system, and powerful performance, redefined user experiences and led the smartphone era. Therefore, this paper focuses on analyzing the key success factors related to technological innovation in world-class information technology enterprises. Drawing insights from academic evaluations of technological innovation systems and industry research interviews, we systematically organize these factors around four main aspects: technological innovation resources, technological innovation capabilities, technological innovation management models, and technological innovation ecosystem vitality.

Based on the four major aspects that contribute to the success of world-class information technology enterprises, we further refine and identify 14 critical success factors, as summarized in Table 1:

Table 1. the key success factors of world-class information technology enterprises

Classification	Si	Influencing Factors	Specific Explanation
Technological Innovation Resources	S1	Investment Intensity	Proportion of research and development (R&D) investment to revenue
	S2	R&D Investment Management	Direction of R&D funding allocation.
	S3	R&D Personnel Intensity	Ratio of R&D personnel to total employees.
	S4	Top Research Talent Scale	Quantity of top-tier talent in the industry
Technological Innovation Capabilities	S5	Continuous Technological Innovation	Ability to sustain innovative breakthroughs
	S6	Core Technology	Mastery of critical technologies.

Classification	Si	Influencing Factors	Specific Explanation
		Autonomy	
	S7	Technology Leadership	Ability to lead industry technology development.
	S8	Achievement Transformation Capability	Successful transformation of research outcomes into products and industrial applications.
	S9	Product Competitiveness	Recognition of products in the market.
Technological Innovation Management Models	S10	Innovation Management Mechanisms	Emphasis on evaluation, assessment, and incentive mechanisms.
	S11	Innovation Cultural Atmosphere	Fostering an environment conducive to innovation and risk-taking.
Technological Innovation Ecosystem Vitality	S12	Ecosystem Scale	Number of innovation ecosystem partners.
	S13	Ecosystem Leadership	Influence over ecosystem partners.
	S14	Ecosystem Collaboration Mechanisms	Mechanisms promoting collaboration among ecosystem partners.

3 DEMATEL-ISM MODEL CONSTRUCTION

3.1 Joint Modeling Process

DEMATEL (Decision-Making Trial and Evaluation Laboratory) is a systematic analysis method that utilizes graph theory and matrix tools. It essentially considers a system as a directed graph with weighted edges, aiming to determine the cause-and-effect relationships between elements and the status of each element in the system. ISM (Interpretive Structural Modeling) is a commonly used system analysis method for studying directed networks or binary relation directed graphs. It uses Boolean matrix operations to obtain a clear multi-level hierarchical structural model, aiming to analyze the causal hierarchy and ladder structure between elements in a complex system. The combination of DEMATEL and ISM models can be used to analyze the causal relationships between influencing factors in a complex system. It helps clarify the cause-and-effect hierarchical relationships between different factors and explains the interrelationships between factors within the same hierarchical structure, making complex system issues more understandable. The specific modeling process is shown in Figure 2.

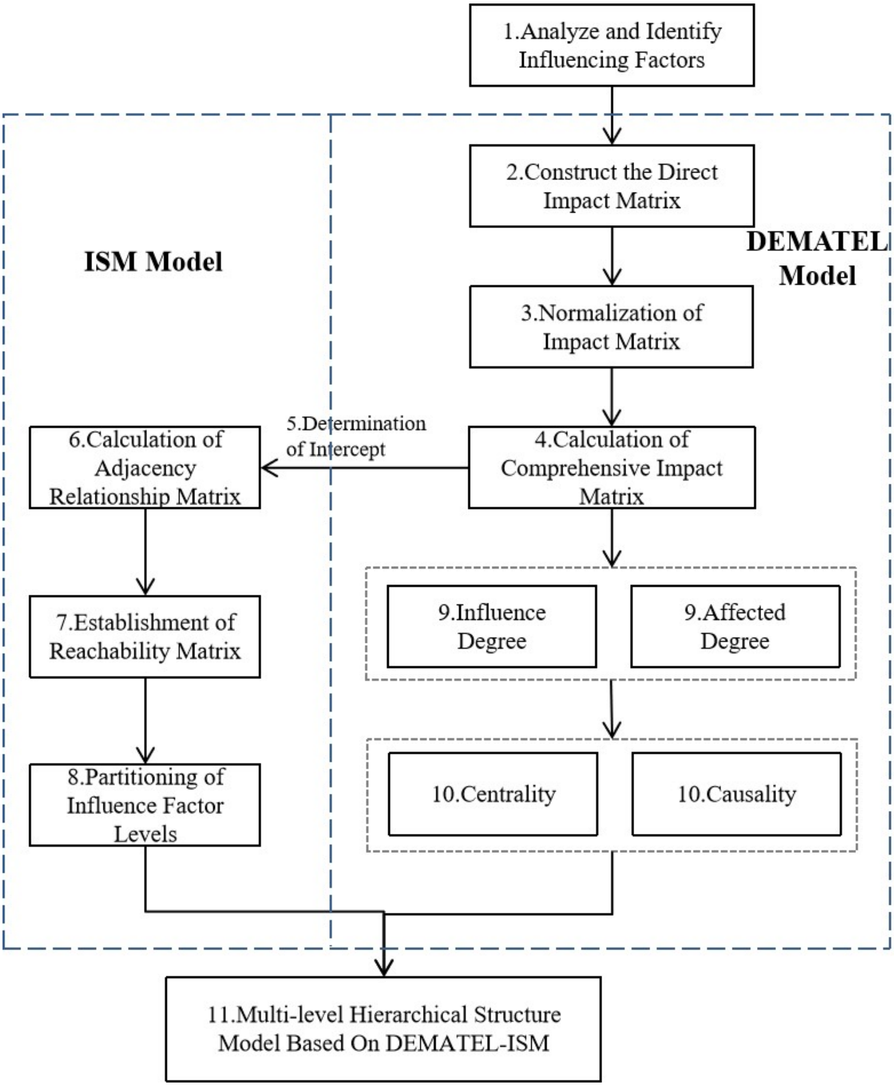

Fig. 2. DEMATEL-ISM **Joint Modeling Steps**

1.Analyze and Identify Influencing Factors:

Determine 14 critical success factors as the key influencing factors for the success of world-class information technology enterprises.Each factor is denoted as Si∈S (i=1, 2, …, 14), representing an individual factor.

2.Construct the Direct Impact Matrix:

Set semantic scales for expert evaluations of the impact relationships between the identified factors (as shown in Table 2).Use the Delphi method to assess the strength of relationships among key success factors for information technology enterprise success.Obtain the initial direct impact matrix S.

Table 2. Semantic Scale for Expert Evaluation.

Semantic Variable	No Influence	Minor Influence	Moderate Influence	Strong Influence
Scale	0	1	2	3

3.Normalization of Impact Matrix:

Normalize the initial direct impact matrix S using the row and maximum value method to obtain the normalized impact matrix N. The specific calculation formula is shown in Equation (1).

$$N = \frac{S}{\max\left(\sum_{j=1}^{n} S_{ij}\right)} \tag{1}$$

4.Calculation of Comprehensive Impact Matrix:

Consider both direct and indirect impacts between influencing factors. Use the summation of direct and indirect impacts to calculate the comprehensive impact matrix T based on Equation (2).

$$T = (N + N^2 + N^3 + \cdots + N^k) = \sum_{k=1}^{\infty} N^K = N(I - N)^{-1} \tag{2}$$

5.Determination of Intercept (λ):

Introduce an intercept λ （$\lambda \in [0,1]$） to simplify the system structure. The value of the intercept is statistically obtained from the comprehensive impact matrix T using Equation (3),

$$\lambda = \bar{x} + \sigma \tag{3}$$

where $\bar{x}$ represents the average value of matrix T, and σ represents the overall standard deviation.

6.Calculation of Adjacency Relationship Matrix:

Compute the adjacency relationship matrix B based on the comprehensive impact matrix T using Equation (4).

$$\begin{cases} b_{ij} = 1, t_{ij} \geq \lambda \\ b_{ij} = 0, t_{ij} < \lambda \end{cases} \tag{4}$$

7.Establishment of Reachability Matrix:

The adjacency matrix reflects the direct binary relationships between factors. Considering indirect impact effects among factors, calculate the overall relationship matrix Z based on Equation (5). Then, solve the reachability matrix K using Boolean algebra according to Equation (6).

$$Z = B + I \tag{5}$$

$$K = Z^{k+1} = Z^{k} \neq Z^{k-1} \tag{6}$$

8.Partitioning of Influence Factor Levels:

Based on Equation (7) and the reachability matrix K, establish the reachable set R(Si), antecedent set A(Si), and intersection set C(Si) for each factor Si. If C(Si) = R(Si), the element belongs to a higher-level factor. Elements satisfying this condition are within the same level, and this process continues to determine different hierarchical level

$$\begin{cases} R(S_i) = \{S_i \mid S_i \in S, k_{ij} = 1\} \\ A(S_i) = \{S_i \mid S_i \in S, k_{ji} = 1\} \\ C(S_i) = R(S_i) \cap A(S_i) = \{S_i \mid S_i \in S, k_{ij} = 1, k_{ji} = 1\} \end{cases} \tag{7}$$

9.Calculation of Influence and Affected Degrees for Each Factor:

Based on the comprehensive impact matrix T, compute the influence degree Di and affected degree Ci for each factor Si using Equations (8) and (9), respectively. The influence degree Di corresponds to the sum of the row associated with factor Si, while the affected degree Ci corresponds to the sum of the column associated with factor Si.

$$D_{\mathrm{i}} = \sum_{j=1}^{n} t_{ij}, (i = 1,2,3, \cdots, n) \tag{8}$$

$$C_{\mathrm{i}} = \sum_{j=1}^{n} t_{ji}, (i = 1,2,3, \cdots, n) \tag{9}$$

10.Calculation of Centrality and Causality for Each Influencing Factor:

Calculate the centrality Mi and causality Ri for each influencing factor using Equations (10) and (11).The centrality Mi represents the sum of the influence degree Di and the affected degree Ci.The causality Ri is the difference between the influence degree Di and the affected degree Ci.Based on the principle that positive causality indicates a cause factor and negative causality indicates a result factor, judge the causal attributes of each factor and rank them accordingly.

$$M_i = D_i + C_i \tag{10}$$

$$R_{\mathrm{i}} = D_{\mathrm{i}} - C_i \tag{11}$$

Create a multi-level hierarchical structure model diagram by incorporating the results of centrality and causality rankings.

3.2 Model Construction Results

Following the DEMATEL-ISM joint modeling process, construct a multi-level hierarchical structure model for key success factors in world-class information technology enterprises. Quantitatively score the mutual impact relationships among the refined 14 key success factors using the Delphi method. Organize the impact levels between key success factors to obtain the direct impact matrix S.

$$S = \begin{bmatrix} 0 & 0 & 2 & 0 & 3 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 2 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 2 & 0 & 0 & 2 & 3 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 3 & 3 & 3 & 0 & 1 & 0 & 2 & 0 & 2 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 3 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 3 & 3 & 0 \\ 1 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 2 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 0 \\ 0 & 0 & 0 & 1 & 3 & 1 & 0 & 2 & 1 & 0 & 2 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 2 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 0 & 0 & 0 & 0 & 0 & 2 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \end{bmatrix}$$

Normalize the direct impact matrix S according to Equation (1) and calculate the comprehensive impact matrix T.Based on the impact matrix T, sequentially compute the reachability matrix K using Equations (3), (4), (5), and (6).

$$K = \begin{bmatrix} 1 & 1 & 1 & 0 & 1 & 1 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 \\ 0 & 1 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 & 1 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 \\ 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 1 & 1 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 \\ 0 & 1 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{bmatrix}$$

Perform hierarchical partitioning of factors based on Equation (7). The final hierarchical partitioning results are shown in Table 3.

Table 3. The final hierarchical results

Level	Fcators
L1	5,8,12,14
L2	2,11,13
L3	7,9
L4	3,6,10
L5	1,4

Based on the influence matrix T, the influence, influence, centrality and cause of each influencing factor were obtained according to equations (8), (9), (10) and (11). Taking the centrality as the abscissa and the causality as the ordinate, the causal and effect relationships between the factors as shown in Figure 3 are plotted.

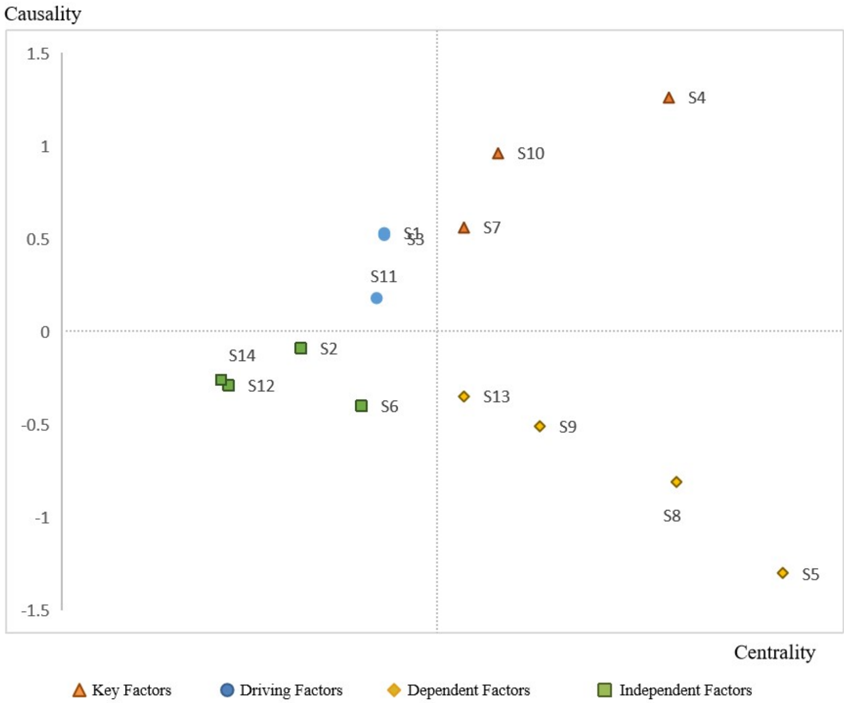

Fig. 3. Causality-Result Relationship

Based on the hierarchical partitioning results, centrality, and causality, create a multi-level hierarchical structure model diagram as shown in Figure 4.

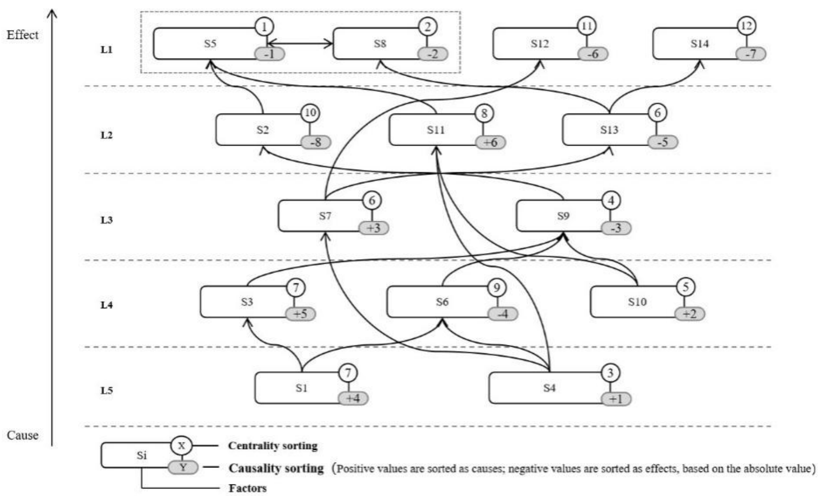

Fig. 4. Multi-Level Hierarchical Structure Model of Success Factors For World-Class Information Technology Companies Based On DEMATEL-ISM

4 MODEL ANALYSIS AND RECOMMENDATIONS

4.1 Causality and Centrality Analysis

Centrality represents the degree to which a node occupies a central position in the network, and it is a positive indicator, meaning that a higher value indicates greater importance. Causality reflects the cause-and-effect attributes of factors, with two types of indicators: positive values represent causative factors, with larger values indicating a greater influence on other factors and a higher ranking; negative values represent resultant factors, with larger absolute values indicating a greater susceptibility to be influenced by other factors and a higher ranking. From the cause-and-effect relationships in Figure 3, it can be observed that the causality and centrality values of three factors, namely top research talent scale (S4), innovative management mechanisms (S10), and technological leadership (S7), are relatively high. These factors are crucial and influential in the entire system, making them key factors that world-class information technology enterprises should focus on in their construction. The centrality values of four factors—continuous technological innovation (S5), achievement transformation capability (S8), product competitiveness (S9), and ecosystem leadership (S13)—are high. However, as resultant factors, they are susceptible to the influence of other factors and can be considered dependent factors in the system. It is essential to focus on factors that can directly impact these aspects. Although the centrality values of investment intensity (S1), R&D personnel intensity (S3), and innovation culture atmosphere (S11) are relatively low, as causative factors, they are more likely to influence other factors and can be considered driving factors in the system. Core technology autonomy (S6), R&D investment management (S2), ecosystem scale (S12), and ecosystem collaboration mechanisms (S14) have lower causality and centrality values. Compared to other factors, they exhibit a lower direct driving and influencing degree on the success of world-class information technology enterprises, making them independent factors in the overall system.

4.2 Hierarchy and Causality Analysis

From Figure 4, we observe that the key success factors for world-class information technology enterprises form a directed hierarchical structure with five levels. Factors transition from fundamental causes at the lower levels to surface-level reasons or results. Causal relationships are represented by directed arrows, where bidirectional arrows indicate loops that meaning those factors mutually influence each other. In this system, there exists only one group of mutually causal relations: continuous technological innovation (S5) and achievement transformation capability (S8). These factors are closely related and form a small subsystem. When optimizing management, it's essential to consider them comprehensively. Looking at the entire hierarchical structure: investment intensity (S1) and top research talent scale (S4) are at the lowest level, emitting directed arrows. They can directly or indirectly influence other factors within the system. These factors represent the fundamental elements for leading information technology enterprises and serve as the foundation for successful technological innovation； continuous technological innovation (S5), achievement transformation capability (S8), ecosystem scale (S12), and ecosystem collaboration mechanisms (S14) are at the uppermost layer, representing surface-level reasons. They are influenced by other factors but do not directly affect other factors (except for subsystems forming loops). These factors directly impact the effectiveness of technological innovation. If rapid innovation results are desired, focusing on these four areas is crucial. However, considering their susceptibility to other factors, long-term enhancement of a company's technological innovation capability still requires optimization from fundamental factors for overall system excellence. Additionally, the intermediate layer of factors occupies a central position in the increasing hierarchy of the entire system. These factors are influenced by the root cause layer and play a pivotal role in connecting the upper and lower levels. Among them, product competitiveness (S9) and innovative management mechanisms (S10) are both high-centrality factors and occupy the intermediate layer in this system.

4.3 The Recommendations for Optimization

Around the centrality of causality and hierarchical causal analysis involve adopting a principle of graded optimization and precision strategy to formulate development measures for various critical factors. The goal is to channel scientific and technological resources toward the most core and urgent directions, maximizing the effectiveness of these resources. Based on two dimensions—centrality and factor hierarchy—the 14 factors can be divided into three priority levels, First Priority: Factors that fall within the top 50% centrality and are positioned at the fourth or fifth hierarchical level in the causal structure. These factors significantly impact technological innovation performance and can influence the development of other factors. They should receive focused resource allocation for optimization. Second Priority: Factors that fall within the top 50% centrality and are positioned at the first, second, or third hierarchical level. These factors also significantly impact technological innovation performance and exert a certain degree of influence on other factors. They require attention and resource allocation as needed. Third Priority: Factors with centrality below the top 50%. Their impact on technological innovation performance is relatively weak, and their urgency is not high. These factors are suitable for long-term optimization adjustments in daily management. Notably, this category includes factors related to core technological autonomy (such as S6 in the system). For specific optimization strategies, refer to Figure 5

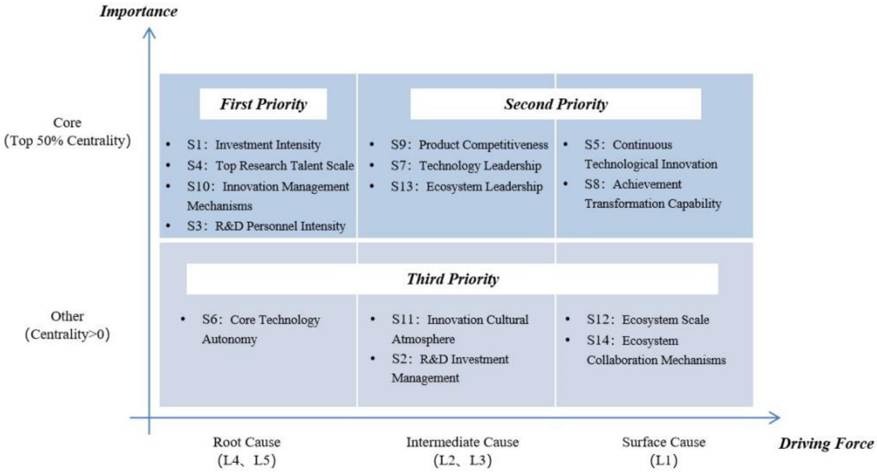

Fig. 5. Influencer Optimization Recommendations

5 CONCLUSION:

This article is oriented towards the information technology industry and, starting from the perspective of the technological innovation development of enterprises, focuses on four aspects: technological innovation resources, technological innovation capabilities, technological innovation management models, and the vitality of technological innovation ecosystems. It identifies 14 key success factors for growing into world-class enterprises. The article employs the DEMATEL and ISM combined modeling method to generate a clear hierarchy and distinct levels in the structural diagram of influencing factors. Simultaneously, by further dissecting the model, the article analyzes the impact relationships and degrees between various factors. It proposes three levels of graded optimization plans. The results indicate that the intensity of capital investment, the scale of leading research talents, innovative management mechanisms, and the density of research and development personnel significantly influence the technological innovation performance of information technology enterprises. These factors are crucial for aiding them in becoming world-class enterprises, necessitating focused resource allocation and optimization. The research results provide a convenient reference for relevant enterprises to formulate precise strategies based on their specific circumstances. They offer a new train of thought and theoretical basis for fostering world-class information technology enterprises.

REFERENCE

1. Cui Xinjian, Ouyang Huimin. (2020) China Cultivating World-Class Enterprises with Global Competitiveness: Progress, Gaps, and Strategies.J. Economic Dynamics, (5):13. https://inds.cnki.net/kcms/detail?v=AjHgns0D4aSMF1RQVyHWsLl3duP3sLeVRTdH1Q

xFwKAh31N7ig7xyZVOZ0kHQGvcJC6/sfAOq3wQaujeUR3NuxGqMRbBTCTvmPATN sMB1gY=.
2. Xiao Hongjun. (2023) Emerging from the "Cognitive Jungle" of World-Class Enterprises: Concept Definition and Feature Identification.J. Journal of Xi'an Jiaotong University: Social Sciences Edition, 43(4):36-49. DOI: 10.15896/j.xjtuskxb.202304004.
3. Zhou Yuanbing. (2012) What Counts as "International First-Class Enterprise"?.J. Enterprise Civilization, (3):2. DOI: CNKI:SUN:QYWM.0.2012-03-041.
4. Jiang Fuyou, Zhou Tirang. (2019) Study on the Connotation of World-Class Enterprises.J. China Electric Power, (1):4. DOI: CNKI:SUN:DAYE.0.2019-01-017.
5. Dong Fugui, Wu Nannan, Yang Shangdong, et al. (2018) Characteristics and Cultivation Path of World-Class Enterprises with Global Competitiveness—Taking Power Grid Enterprises as an Example.J. Modern Economic Exploration, (3):8. DOI: 10.3969/j.issn.1009-2382.2018.03.011.
6. Huang Qunhui, Yu Jing, Wang Tao, et al. (2017) Cultivating World-Class Enterprises: International Experience and Chinese Context.J. China Industrial Economics, (11):21. DOI: 10.19581/j.cnki.ciejournal.2017.11.001.
7. Chen Jing, Guo Rongyu, Liu Chang. (2020) Research on Evaluation Index System of World-Class Innovative Enterprises.J. Innovation and Technology, 20(6):9. DOI: CNKI:SUN:CXKJ.0.2020-06-001.
8. Zhang Zhengang, Deng Haixin, Lin Dan, et al. (2023) Research on Evaluation System of World-Class Manufacturing Enterprises in the Chinese Context.J. Statistics and Decision, (4):178-182.DOI:10.13546/j.cnki.tjyjc.2023.04.033.
9. Sun Yanhao, Zhang Tao, Liu Ningxin, et al.(2022) Analysis of High-Speed Railway Train Delay Factors Based on Improved ISM-DEMATEL.J. Railway Transportation and Economy, 44(3):7.DOI: 10.16668/j.cnki.issn.1003-1421.2022.03.01.
10. Mousavizade F , Shakibazad M. (2018). Identifying and ranking -CSFs for KM implementation in urban water and sewage companies using ISM-DEMATEL technique.J.Journal of Knowledge Management.DOI:10.1108/JKM-05-2018-0321.
11. Shashank G , Sairam D , Reddy B R ,et al.(2020).Analysis of enablers and barriers in adopting electric vehicles in India: DEMATEL - ISM approach.C. 2020 International Conference on System, Computation, Automation and Networking (ICSCAN). 2020. DOI:10.1109/ICSCAN49426.2020.9262394.
12. Chen Jing, Guo Bin, Yang Wei. (2021) Technological Innovation Management System of World-Class Enterprises.J. Construction Enterprise Management, (9):4. DOI: 10.3969/j.issn.1003-2320.2021.06.032.