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Strategy for Enhancing Core Competitiveness of Innovative Enterprises in the "Internet+"Era

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Abstract: For innovative enterprises, the advent of the 'Internet+'era means they need to utilize advanced information technology to adjust their management and operational models and core technologies, thus enhancing their core competitiveness. This paper focuses on innovative enterprises in the 'Internet+' era. Firstly, it reviews relevant theories on core competitiveness of innovative enterprises. Secondly, it explores the current development status of innovative enterprises in the 'Internet+' era and conducts a SWOT analysis. Thirdly, it empirically analyzes the core competitiveness of typical enterprises using factor analysis, and subsequently ranks their core competitiveness. Finally, it proposes strategies for enhancing core competitiveness in the 'Internet+' era from three perspectives: profitability, scale and research capability, and macro-market environment, providing decision-making reference for deep cooperation among enterprises and the enhancement of core competitiveness for innovative enterprises.

Keywords: Internet+, Innovative enterprises, Core competitiveness, Factor analysis method.

1. Introduction

In the wave of the 'Internet+' era, traditional enterprises are undergoing profound transformations. The widespread adoption of the Internet and rapid technological advancements have given rise to new business models and economic forms. In this new era, innovative enterprises have become the core driving force leading the market. In such a highly competitive environment, the core competitiveness of enterprises becomes the decisive factor for their survival and development. Traditional competition models are no longer applicable in the 'Internet+' era, as the homogeneity of products and services increases, and price transparency continues to rise. In this context, innovative enterprises break free from traditional constraints by constantly exploring and adopting cutting-edge technologies and deeply understanding user needs. They open up new market spaces and achieve sustainable growth.

In the 'Internet+' era, innovative enterprises are driven by technology, breaking the limitations of traditional business models, and deeply integrating the Internet, big data, artificial intelligence, and other advanced technologies with traditional industries, giving birth to new business models. Enterprises in this new model not only better satisfy diverse user needs but also provide more efficient and convenient services, significantly enhancing user experience and customer stickiness. In the 'Internet+' era, innovative enterprises also possess flexible organizational structures and a highly open attitude towards cooperation. They emphasize open innovation and actively cooperate with excellent enterprises and research institutions in various fields to share resources and technology, jointly promoting technological progress and industrial upgrading. This open cooperation approach enables innovative enterprises to quickly acquire advanced technology and resources, accelerate product iterations, and maintain a competitive advantage in the market. In 2019, the Ministry of Science and Technology issued a notice titled "Several Policy Measures to Support the Accelerated Innovation and Development of Technology-Based Small and Medium-Sized Enterprises in the New Period" stating that technology-based small and medium-sized enterprises are essential forces to foster new growth drivers and promote high-quality development. Technological innovation capabilities are the unbeatable competitive strength for enterprises, and the development of private enterprises, especially various types of small and medium-sized enterprises, should be driven by innovation, enhancing technological innovation capabilities and core competitiveness. The Ministry of Science and Technology and the Ministry of Finance jointly formulated the "Action Plan for Enhancing Enterprise Technological Innovation Capability (2022-2023)," pointing out that it is necessary to focus on key aspects of enterprise innovation capabilities, highlight problem orientation, strengthen precise measures, increase incentives, optimize innovation services, boost development confidence, and guide support for various enterprises to make technological innovation their core competitiveness, providing strong support for achieving high-level technological self-reliance, promoting stable economic growth, and high-quality development.

In summary, in the 'Internet+' era, innovative enterprises lead the market trends with core competencies such as technology-driven approaches, open cooperation, and data insight. They embrace change, innovate continuously, surpass themselves, become new engines of economic development, and bring unlimited possibilities for social progress and development. In this challenging and opportunistic era, continuous pursuit of innovation is the key to standing undefeated in fierce market competition. Therefore, how to enhance the core competitiveness of innovative enterprises in the 'Internet+' era has become an important practical issue for enterprises.

2. Current Status and SWOT Analysis of Innovative Enterprises in China

2.1. Current Status of Innovative Enterprises

In July 2006, the Ministry of Science and Technology, the

State-owned Assets Supervision and Administration Commission, and the All-China Federation of Trade Unions initiated the construction of a pilot program for “innovative enterprises” to promote enterprises as the main body of technological innovation. The pilot enterprises identified by the three departments were divided into two batches, totaling 287. Statistics show that the research and development (R&D) expenditure of these enterprises increased from 54.5 billion yuan in 2005 to 82.9 billion yuan in 2008, a growth of 52.1%, accounting for about one-fourth of the total R&D investment in society. The average R&D expenditure of pilot enterprises accounted for 6.74% of their sales revenue, far higher than the average level of 0.77% for large and medium-sized industrial enterprises nationwide in 2006. In addition, the construction of innovative capabilities in pilot enterprises has been significantly strengthened, with the total number of R&D personnel increasing from 174,600 in 2006 to 220,100 in 2008, a growth of 26.4%. Among them, 57 enterprises established national key laboratories, technology centers, engineering centers, and other R&D institutions, and half of the enterprises established joint laboratories with universities and research institutes. These enterprises have also gained more independent intellectual property rights, with the number of invention patent applications increasing from 9,300 in 2005 to 17,180 in 2008, a growth of 84.7%. The number of authorized software copyrights increased from 638 to 4,371, nearly sixfold. According to relevant officials of the Ministry of Science and Technology, a mechanism has been formed in China for the central and local governments to jointly promote the construction of the pilot program for “innovative enterprises” and nearly 2,000 enterprises are conducting pilots at different levels. In the statistics of the Ministry of Science and Technology in 2014, there were 659 innovative enterprises nationwide, with 228 in East China, 134 in North China, 104 in Central South China, 72 in Southwest China, 61 in Northwest China, and 60 in Northeast China.

To achieve innovation-driven and strengthen industrial chains, China is creating a development system for innovative enterprises. Currently, China has over 30 million small and medium-sized enterprises, and based on this foundation, it is constructing a development system for innovative enterprises, the backbone of which is made up of specialized and new “little giant” enterprises - single-item champions in the manufacturing industry - and industry-leading enterprises along the industrial chain.

According to the three batches of specialized and new “little giant” enterprises publicized by the Ministry of Industry and Information Technology, there were 248 companies in the first batch, 1,744 in the second batch, and 2,930 in the third batch, including a total of 361 A-share listed companies, 17 of which were national-level specialized and new “little giant” enterprises, and 354 were listed on the New Third Board, including 118 national-level specialized and new “little giant” enterprises.

From the perspective of R&D investment in major countries and regions (2018 data), the United States ranks first globally with an R&D investment of USD 552.98 billion. In recent years, China's R&D investment has been steadily increasing, reaching USD 474.81 billion in 2018, second only to the United States, and the total R&D investment of China is nearly the sum of the last four countries (Japan, Germany, South Korea, and India). There are only four countries - the United States, China, Japan, and Germany - with R&D investments exceeding USD 100 billion. Looking at R&D intensity (R&D investment/GDP), among the top 10 countries, South Korea ranked first with over 4%, followed by Japan at 3.5%, and the United States and others exceeded 2%, with China close to 2%.

According to the announcement by Boston Consulting Group, in 2021, 5 Chinese companies, namely Huawei, Alibaba, Lenovo, Tencent, and Xiaomi, were successfully listed among the top 50 companies with innovation worldwide. In 2020, Huawei's R&D expenses reached as high as 141.89 billion yuan. In the international patent applications published in 2021, Huawei ranked first with 43,783 patent applications. In 2019, China surpassed the United States to become the largest source country of international patent applications submitted through the Patent Cooperation Treaty (PCT). China continued to lead in the number of international patent applications through PCT in 2020, increasing by 16.1% year on year, with 68,720 applications, steadily ranked first in the world. Following China are the United States, with 59,230 patent applications. Japan, South Korea, and Germany ranked third, fourth, and fifth, respectively.

Software and information service enterprises such as Huawei, Tencent, and Xiaomi play an important role among innovative enterprises in China. The number of software companies in China above designated size fluctuated significantly from 2014 to 2021. In 2020, there were 40,308 software companies in China above designated size, a decrease of 1.34% compared with 2019. From January to November 2021, the number of software companies in China above designated size reached 41,782, a year-on-year increase of 2.96%. Based on the benchmark of 100 points for the industry average level, there were about 170 companies (groups) with a competitiveness index of over 120 points in the software and information technology service enterprises in 2021, and 134 companies exceeded 130 points. The index of the top 100 competitive enterprises exceeded 133 points. Among them, Huawei Technologies Co., Ltd., Shenzhen Tencent Computer Systems Co., Ltd., and Beijing Baidu Netcom Science and Technology Co., Ltd. ranked in the top three.

2.2. SWOT Analysis of Innovative Enterprises

2.2.1. Strengths

Since the establishment of innovative enterprises in China in 2006, the investment in scientific and technological research and development has been continuously increasing. The R&D funds of enterprises have been growing annually, and the innovation capacity of pilot enterprises has significantly improved. Some of these innovative enterprises have established cooperation with universities and research institutes to jointly conduct research, enabling them to acquire more proprietary technologies. The number of patent applications and authorized software copyrights has also steadily increased. From a global perspective, China’s investment in R&D by innovative enterprises has been continuously increasing, ranking second only to the United States. It is also comparable to the combined total of Japan, Germany, South Korea, and India. From 2019 to 2020, China’s patent applications increased from 59,193 to 68,720, with a year-on-year growth of 16.10%, maintaining its position as the world leader, providing a solid economic foundation for enhancing the core competitiveness of China's innovative enterprises on the world stage.

2.2.2. Weaknesses

The development time of innovative enterprises in China is relatively short, and the earliest batch of enterprises has only been established for 16 years. As a result, the development models and concepts of these enterprises are still in an immature stage, and there are limited successful cases for them to learn from. Although the investment in R&D by Chinese enterprises has increased year by year, compared to developed countries, the R&D investment and intensity are still much lower in China. This means that the current level of R&D investment and intensity of innovative enterprises in China is insufficient, which hinders their long-term development in the international competitive market. Most of the innovative enterprises in China are concentrated in the fields of computing and information services. However, in the "Internet+" era, the chip and semiconductor industries play a crucial role, and there are relatively few innovative enterprises in this area with limited R&D investment. The lack of significant innovative enterprises in these vital fields may impact the future development of technological research in China.

2.2.3. Opportunities

Currently, with the continuous influx of the "Internet+"wave in China and the digital economy becoming one of the key directions for national development, China has established a relevant enterprise development system to support innovation-driven enterprises through policies. In this policy and economic context, innovative enterprises can actively develop their businesses in their respective fields, providing new opportunities for technological innovation and product research and development. In this era of accelerated internet development, the integration of "Internet+" with innovative industries, such as computer and software services, tightly connects users with the applications and services provided by innovative enterprises. Therefore, in the future, innovative enterprises are bound to have tremendous market potential. Additionally, under the strong promotion of the Chinese government, the policy and welfare levels enjoyed by innovative enterprises are likely to be significantly enhanced, encouraging greater enthusiasm for production and research and improving the efficiency of innovation transformation and product development.

2.2.4. Threats

As many countries have already entered the "Internet+"era and are striving to seize this opportunity, China is also at the forefront of investing in scientific and technological innovation. However, potential risks cannot be ignored. Some major countries' monopolies in core technology fields have hindered the progress of China's innovative technology research and development. Especially in the field of chip manufacturing, the blockade of foreign core technologies has impacted China's economy. Moreover, some countries'joint efforts to suppress and resist China's R&D products may gradually reduce the competitiveness and market share of China's innovative enterprises in the international competitive market.

3. Empirical Analysis of Core Competitiveness of Typical Enterprises

3.1. Factor Analysis Method

In this study, factor analysis will be used to extract common factors from the selected seven indicators. Based on the relationships between variables, highly correlated factors will be grouped together. This will allow us to identify the most representative factors from the seven variables and assess the level of core competitiveness of the enterprises.

3.2. Construction of Evaluation Indicator System

3.2.1. Role of the Indicator System

The overall effect of the indicator system can describe various factors contributing to the evaluation of the core competitiveness of the assessed enterprises. Only by fully understanding their own strengths and industry prospects can companies better position themselves for survival and development, thereby gaining a stronger core competitiveness in the market.

3.2.2. Principles of Indicator System Construction

The principles of constructing the indicator system mainly include scientificity, feasibility, comprehensiveness, and purposefulness. These principles ensure that the selected indicators have scientific basis, practical operability, interrelatedness, and clear objectives, ensuring the completeness of all aspects of the indicator system.

3.2.3. Selection of the Indicator System

To ensure the rationality and effectiveness of the selected indicators, this study chooses seven indicators, including absolute indicators, relative indicators, financial indicators, and non-financial indicators. By adhering to the principles of indicator system construction, a comprehensive evaluation of the core competitiveness of innovative companies can be achieved.

Table 1. Evaluation Indicator System

Number	Name	Calculation
X_1	Return on Equity	Total Asset Turnover * Sales Profit Margin * Equity Multiplier * 100%
X_2	Net Profit Margin on sale	Net Profit Margin / Sales Revenue * 100%
X_3	R&D Investment	R&D Expenditure
X_4	OperatingRevenue	Revenue from Main Business Operations or Other Business Income
X_5	TotalAssets	All assets owned or controlled by the company that generate economic benefits
X_6	Total Asset Turnover Ratio	Operating Revenue / Average Total Assets
X_7	Number of Patents	Total number of patents applied for by the company

Data Source: East Money Website

3.3. Selection and Empirical Analysis of Typical Enterprises

3.3.1. Selection of Typical Enterprises

In this study, the research subjects are determined to be innovative enterprises in China. Therefore, we selected technology innovation-oriented enterprises, mainly in the software and information technology services industry, for analysis. To comprehensively evaluate the core competitiveness of the Internet industry, this paper selected 20 typical enterprises as samples for empirical analysis. The data was primarily sourced from the 2021 annual reports of these enterprises available in the database of East Money.

3.3.2. . Data Acquisition of Indicators

The data for this study mainly comes from the cross-sectional data provided in the 2021 annual reports of the companies available in the database of East Money. This data is used for factor analysis. The original data is shown in Table 2.

Table 2. Data of Various Enterprises

Company Name	ROE (%)	Net Profit Margin on sale(%)	R&D Investment (Billion Yuan)	Operating Income (Billion Yuan)	Total Assets (Billion Yuan)	Total Asset Turnover Ratio (Times)	Number of Patents
Wanda Information	24.2	64	6.47	25.29	69.05	0.52	135
ZhongkeChuangda	13.68	15.27	5.1	41.26	72.39	0.65	258
Zhongke Information	6.8	8.74	0.23	4.95	9.86	0.51	69
Dptech	16.61	27.58	1.8	7.42	34.9	0.25	1167
TianjiTechnology	1.24	6.23	0.33	2.83	17.03	0.17	18
Neusoft Group	5.1	6.6	1.9	29.67	53.23	0.56	527
Yonyou Network	10.19	7.64	17.04	89.32	173.2	0.52	255
AsiaInfo Technologies	12.77	11.4	-10.06	68.95	95.05	0.72	165
Ufida Network	0.72	1.32	0.25	4.57	13.01	0.33	2
Anheng Information	-4.8	-6.9	3.64	8.65	40.54	0.5	987
35.com	-2.94	-6.23	0.14	1.42	6.2	0.27	6
Neusoft Corporation	1.8	0.5	6.18	53.21	175.19	0.51	1743
Baosight Software	21.52	16.23	12.9	117.6	178.6	0.7	531
Tianyuandike	1.22	1.46	2.74	56.14	62.96	0.91	21
Rongke Technology	1.15	3.96	0.446	6.754	21.96	0.325	18
Watertek Information	-4.39	-8.65	2.385	19.71	63.93	0.3	147
Bluedon	-41.01	-325.3	1.539	2.776	67.73	0.04	105
Etonetech	2.36	2.1	0.64	16.54	23.43	0.66	33
Zhongbei Communication	10.96	7.63	1.092	26.41	41.34	0.67	10
Tongniu Information	3.82	16.34	0.929	2.547	14.64	0.18	9

Data Source: East Money Website

3.3.3. Data Standardization

When analyzing the core competitiveness of enterprises in this study, the selected evaluation indicators exhibit significant differences in units and scales. For example, Asset Turnover (Times), ROE (%), and R&D Investment (Billion Yuan) have distinct units and numerical ranges, and each company's values vary greatly. Therefore, before conducting the analysis, it is necessary to standardize the data using the following formula: $Z_{ij} = (X_{ij} - X_{min})/(X_{max} - X_{min})$, where X_{ij} represents the original data and Z_{ij} represents the standardized data. The standardized indicator data are as follows.

Table 3. Standardized Data of Each Company

Company Name	ROE (%)	NetProfitMargin on sale (%)	R&D Investment (Billion Yuan)	Operating Income (Billion Yuan)	Total Assets (Billion Yuan)	Total Asset Turnover Ratio (Times)	Number of Patents
Wanda Information	1.505	0.936	0.687	-0.123	0.134	0.247	-0.372
ZhongkeChuangda	0.719	0.298	0.431	0.367	0.194	0.828	-0.111
Zhongke Information	0.205	0.213	-0.476	-0.747	-0.944	0.202	-0.512
Dptech	0.938	0.459	-0.183	-0.671	-0.488	-0.960	1.817
TianjiTechnology	-0.210	0.180	-0.457	-0.812	-0.813	-1.317	-0.620
Neusoft Group	0.078	0.185	-0.165	0.011	-0.154	0.426	0.460
Yonyou Network	0.459	0.198	2.656	1.841	2.029	0.247	-0.117
AsiaInfo Technologies	0.651	0.247	-2.393	1.216	0.607	1.141	-0.308
Ufida Network	-0.249	0.115	-0.472	-0.758	-0.886	-0.602	-0.654
Anheng Information	-0.661	0.008	0.159	-0.633	-0.385	0.158	1.435
35.com	-0.522	0.017	-0.493	-0.855	-1.010	-0.870	-0.645
Neusoft Corporation	-0.168	0.105	0.633	0.733	2.066	0.202	3.038
Baosight Software	1.305	0.311	1.884	2.708	2.128	1.051	0.468
Tianyuandike	-0.211	0.117	-0.008	0.823	0.023	1.990	-0.614
Rongke Technology	-0.217	0.150	-0.436	-0.691	-0.724	-0.625	-0.620
Watertek Information	-0.631	-0.015	-0.074	-0.294	0.040	-0.736	-0.346
Bluedon	-3.366	-4.160	-0.232	-0.813	0.110	-1.898	-0.435
Etonetech	-0.126	0.126	-0.399	-0.391	-0.697	0.873	-0.588
Zhongbei Communication	0.516	0.198	-0.315	-0.089	-0.371	0.917	-0.637
Tongniu Information	-0.017	0.312	-0.346	-0.821	-0.857	-1.273	-0.639

3.3.4. Evaluation and Analysis Process

Before conducting factor analysis, the data needs to be examined. It is generally considered unsuitable for factor analysis when the Kaiser-Meyer-Olkin (KMO) value is below 0.5. According to the KMO test result, the KMO value is 0.537 > 0.50, and the significance in the Bartlett test is 0.000 < 0.05. Based on the comprehensive analysis of the above results, the evaluation system constructed from the selected sample data is suitable for factor analysis. By using SPSS software, we obtained the eigenvalues and variance contribution rates for each factor (Table 4).

Table 4. Explained Total Variance

Factor	Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Variance	Cumulation	Total	Variance	Cumulation	Total	Variance	Cumulation
1	3.247	46.391	46.391	3.247	46.391	46.391	2.589	36.989	36.989
2	1.742	24.884	71.275	1.742	24.884	71.275	2.400	34.285	71.275
3	0.937	13.384	84.659						
4	0.682	9.747	94.406						
5	0.280	3.997	98.403						
6	0.082	1.178	99.581						
7	0.029	0.419	100.000						

According to Table 4, the first 2 common factors explain 71.275% of the total variance, indicating that the extracted 2 common factors can represent 71.275% of the original 7 innovation-related indicators, implying relatively little loss of data information. This suggests that the initial data can be well explained by the extracted 2 common factors, denoted asY_1andY_2. The scree plot shows that the slopes of the first 2 factors are relatively large, and from the 3rd factor onwards, they become stable. This indicates that the evaluation system for core competitiveness of enterprises can be explained using the first 2 factors.

After determining the extracted common factors, a secondary indicator system is constructed based on these factors. The absolute value of factor loading indicates the extent to which the extracted common factors are reflected by each variable, showing their significant influence on the common factors. To ensure that each variable has high loading on a single factor and low loading on the remaining common factors, a component matrix is rotated. The construction of the secondary indicators is based on the common factors associated with variables having higher factor loading values, as shown in Table 5.

Table 5. Rotated Component Matrix

	Factor	
	1	2
Total Assets(Billion Yuan)	0.964	0.106
Operating Income (Billion Yuan)	0.818	0.412
R&D Investment (Billion Yuan)	0.757	
Number of Patents	0.537	
ROE (%)	0.129	0.934
Net Profit Margin on sale(%)		0.923
Total Asset Turnover Ratio (Times)	0.323	0.699

Based on Table 5, the factor Y_1 has higher loadings on variables such as total assets, operating income, research and development (R&D) investment, and the number of patents. These variables can be grouped together and defined as "Scale and Research Capability." On the other hand, the factor Y_2 has higher loadings on variables like return on equity, sales net profit margin, and total asset turnover, which can be grouped together and defined as "Profitability."Thus, we can establish the evaluation model hierarchy, as shown in Table 6.

Table 6. Evaluation Model Hierarchy

Target Layer	Second Level Indicator Layer	Third Level Indicator Layer
Core Competitiveness	Y_1 Scale and Research Capability	Total Asset
		Operating Income
		R&D Investment
		Number of Patents
	Y_2 Profitability	ROE
		Net Profit Margin on Sale
		Total Asset Turnover Ratio

Table 7 Weights of Third Level Indicators on the Second Level Indicators are determined based on the factor component score coefficient matrix.

Table 7. Factor Component Score Coefficient Matrix

	Factor	
	1	2
ROE(%)	-0.068	0.411
Net Profit Margin on sale(%)	-0.162	0.435
R&D Investment (Billion Yuan)	0.312	-0.067
Operating Revenue(Billion Yuan)	0.293	0.080
Total Assets(Billion Yuan)	0.395	-0.079
Total Asset Turnover Ratio(Times)	0.045	0.277
Number of Patents	0.229	-0.076

From the above table, the following factor expressions can be derived:

$$Y_1 = -0.068X_1 - 0.162X_2 + 0.312X_3 + 0.293X_4 + 0.395X_5 + 0.045X_6 + 0.229X_7 \quad (1)$$

$$Y_2 = 0.411X_1 + 0.435X_2 - 0.067X_3 + 0.08X_4 - 0.079X_5 + 0.277X_6 - 0.076X_7 \quad (2)$$

By substituting the standardized original data into the factor expressions (1) and (2), we can calculate Y_1 and Y_2. To accurately analyze the core competitiveness of the 20 enterprises, a weighted calculation is needed to obtain the comprehensive score model, which is expressed as:

$$Y = \frac{0.36989}{0.71275}Y_1 + \frac{0.34285}{0.71275}Y_2 \quad (3)$$

Based on the factor score model, the comprehensive scores of core competitiveness for the 20 innovative enterprises in the year 2021 are obtained (Table 8).

Table 8. Comprehensive Scores of Core Competitiveness for 20 Innovative Enterprises in the Year 2021

Rank	Enterprises	Scale and Research Capability	Profitability	Total Score of Core Competitiveness
1	Baosight Software	2.24	0.85	1.57
2	Yonyou Network	2.09	0.16	1.16
3	Neusoft Corporation	1.93	-0.35	0.83
4	Wanda Information	-0.1	1.06	0.46
5	ZhongkeChuangda	0.23	0.65	0.43
6	Tianyuandike	0.19	0.63	0.4
7	AsiaInfo Technologies	-0.25	0.92	0.31
8	Neusoft Group	-0.02	0.22	0.1
9	Zhongbei Communication	-0.44	0.64	0.08
10	Dptech	-0.21	0.18	-0.02
11	Anheng Information	0.09	-0.36	-0.13
12	etonetech	-0.62	0.34	-0.16
13	Zhongke Information	-0.9	0.32	-0.31
14	Watertek Information	-0.16	-0.47	-0.31
15	Rongke Technology	-0.8	-0.12	-0.47
16	Zhongke Information	-0.9	-0.13	-0.53
17	TongniuInformation	-0.94	-0.15	-0.56
18	TianjiTechnology	-0.92	-0.3	-0.62
19	35.com	-0.96	-0.36	-0.67
20	Bluedon	0.45	-3.74	-1.57

Using SPSS software, the output of the descriptive statistics table was generated based on the factor scores of the 20 innovative enterprises. The maximum, minimum, and mean values of the 2 factors were calculated and the statistical results are presented in Table 9.

Table 9. Descriptive Statistics

	N	Min	Max	Mean
Scale and Research Capability	20	-0.96	2.24	0.0000
Profitability	20	-3.74	1.06	-0.0005
Total Score of Core Competitiveness	20	-1.57	1.57	-0.0005
Valid N (Listwise)	20			

3.3.5. Evaluation Conclusion

Based on the analysis of the scores and industry rankings of the 20 innovative companies, it can be observed that "Baosight Software" has the highest core competitiveness score, while "Bluedon" has the lowest core competitiveness score. Using the mean value of the core competitiveness score in Table 9 as the boundary, the 20 typical companies are divided into two groups: those with higher core competitiveness and those with lower core competitiveness. According to this classification, there are 9 companies with stronger core competitiveness and 11 companies with weaker core competitiveness.

For the 9 companies with stronger core competitiveness, their average scores for scale and research capabilities, profitability, and core competitiveness are 0.652, 0.531, and 0.593, respectively. For the 11 companies with weaker core competitiveness, their average scores for scale and research capabilities, profitability, and core competitiveness are -0.533, -0.435, and -0.486, respectively.

In the scale and research capabilities factor scores, the average score for the companies with stronger core competitiveness is 0.652, with the highest score among innovative companies being 2.24, and the overall average being 0.0000. This indicates that the companies with stronger core competitiveness have higher scale and research capability factor scores than the average of the 20 companies, and they possess a clear advantage in this aspect of the industry competition. On the other hand, the companies with weaker core competitiveness have an average score of -0.533, which is lower than the overall average of the 20 companies, indicating their disadvantage in scale and research capabilities. Therefore, the companies with weaker core competitiveness should optimize and adjust their internal organization, and increase their investment in research and development to improve their scale and research capabilities.

In the profitability factor scores, the average score for the companies with stronger core competitiveness is 0.531, with the highest score among typical companies being 1.06, and the overall average for innovative companies being -0.0005. This shows that the companies with stronger core competitiveness have profitability factor scores higher than the average of innovative companies, indicating that their profitability level is relatively higher among the 20 companies. On the other hand, the average score for the companies with weaker core competitiveness is -0.435, which is lower than the overall average for the selected companies, indicating their lower profitability level among the 20 companies. The stronger core competitiveness of these companies is attributed to the widespread application of "Internet+" in the era of China's information infrastructure construction and big data.

The rapid construction of signal coverage by operators such as China Mobile and China Unicom has resulted in a continuous increase in their operating income and a corresponding improvement in their profitability. However, the weaker core competitiveness in terms of profitability is mainly due to their insufficient sales capacity. The profitability factor scores in Table 5 show that the loadings of net asset return rate, net profit margin, and total asset turnover rate are greater than 0.5, while other indicators are less than 0.5, indicating that these three variables reflect the companies' profitability. Generally, a company's profitability is determined by its sales revenue, and the higher the sales revenue, the stronger the profitability. Therefore, the main factor affecting the weaker core competitiveness in terms of profitability is their sales capacity.

4. Strategies to Enhance the Core Competitiveness of China's Innovative Enterprises

4.1. Strengthen Investment in Product Technological Innovation

Based on the analysis of the scale and research capabilities factor, it is crucial to strengthen investment in product technological innovation and sustainability. For innovative companies, whether they have strong or weak core competitiveness, increasing investment in technological innovation is the most effective way to improve their core competitiveness in the "Internet+" era. For companies with stronger core competitiveness, it is essential to continue research and development of their products, maintain an accurate understanding of market demands, and seek technological innovation directions to find new growth points. By making relevant research and development investments in new growth points, they can support the growth of the number of patents, thereby enhancing the core competitiveness of innovative companies in terms of scale and research capabilities.

For companies with weaker core competitiveness, which are usually small and medium-sized enterprises facing financial constraints, increasing the total assets is of vital importance. This includes increasing sales volume and product production costs, as well as increasing investment in innovative research and development. By doing so persistently, they can find breakthroughs in the fierce market competition, develop unique technologies, and form their own competitive advantages. Whether the core competitiveness is strong or weak, as the main force in the country's development, enhancing their own capabilities is the key to seizing opportunities in the "Internet+" era, using their advantages, and establishing a solid footing in the domestic and international markets. In the modern international competition in the "Internet+" era, comprehensive national strength plays a vital role, and technological competition is critical. Therefore, there is a close relationship between strengthening technological innovation investment and enhancing the core competitiveness of innovative companies.

4.2. Strengthen the Sales Capacity of Innovative Enterprises

Based on the analysis of profitability factors, strengthening the sales capacity of innovative companies is especially important. Innovative companies are always at the forefront of market product trends, aiming to meet the needs of various groups, including governments, hospitals, and ordinary consumers. For companies with stronger core competitiveness, although their profitability is already higher than the industry average, there is still room for improvement to reach the highest level. To achieve this, they need to actively implement brand strategic actions, improve the quality and price of their products and services, and thus increase their revenue. On the other hand, many innovative companies still have lower operating income, indicating that their sales capacity needs to be further enhanced. This can be achieved by obtaining real customer feedback, summarizing product selling points, and developing new customers.

4.3. Create a Fair Market Competition Environment

Analyzing the current macro environment of the country, China's society has entered a new stage of development, which still relies on innovation as the driving force for stable and positive economic development. As innovative companies, they depend on innovation to promote their development. In this process, the most crucial factor is a fair competitive market environment. The government can establish a fair competition system by formulating relevant policies to eliminate the influence of various rules and regulations that hinder fairness and innovation. This will create a fair, just, and transparent market competition atmosphere for the "mass entrepreneurship and innovation" tide of innovative companies. The government should establish relevant market supervision systems for innovative companies, implement the responsibilities of market regulatory departments, fully protect the legitimate rights and interests of innovative companies, and make full use of the normative role of laws and regulations, the self-discipline of innovative companies, and the supervision of society to achieve joint governance and promote market entities' self-restraint and honest operation.

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