

Mouses and Performance Analysis of Spin-off Listing of Railway and Construction Heavy Industry

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Abstract

The rapid development of China's economy, the gradually sound capital market and the friendly policy environment have promoted the wave of spin-off and listing. The spin-off and listing is not only conducive to enterprises to solve development problems and capital needs, but also bring a positive impact on the overall market and economic system, and promote high-quality development. Based on this, this paper selects the first central enterprise where "A split A" was successfully listed, railway Ji'an heavy works as the case company, and adopts financial and non-financial index analysis method to analyze its motivation and performance. The case study of the spin-off and listing of CRCC can provide reference and reference for other enterprises, and also help to promote the innovation of China's capital market.

Keywords

Spin-off Listing; Railway Construction Heavy Industry; Motivation Analysis; Performance Analysis.

1. Foreword

In the continuous evolution of the capital market, the spin-off and listing has gradually become one of the important strategies for enterprises to optimize the resource allocation and enhance the core competitiveness. The spin-off and listing of China Railway Construction Heavy Industry Group Co., Ltd. is the concrete embodiment of this strategic thinking. The spin-off and listing of CRCC is not only a deep excavation of the company's own business development, but also a full use of the function of the capital market. At the end of 2019, with the introduction of the Regulations on the Pilot Domestic Listing of Subsidiaries of Listed Companies, China Railway Construction responded quickly and proposed a plan to split the Railway Construction Heavy Industry for listing on the Science and Technology Innovation Board. In June 2021, the Shanghai Stock Exchange accepted the company's application for listing on the science and technology innovation board, which marked a substantial step forward in the spin-off of the company. The spin-off and listing of CRCC is expected to promote the industrialization of more innovative achievements, enhance the core competitiveness of the enterprise, and ultimately achieve high-quality development. At the same time, the successful listing of CRCC can provide valuable experience for the spin-off and listing of other central enterprises.

2. Literature Review

2.1. The Tives for Spin-off Listing

The motivation for the spin-off listing can be summarized into four hypotheses. The first is the high-quality development hypothesis. W.S.qun(2022) believes that achieving high-quality development of enterprises is the starting point for the asset restructuring of port listed companies. The spin-off listing will help enhance the financing capacity of the parent company and its subsidiaries, thus reducing the overall debt ratio. The second is the financing demand hypothesis. W.Jia (2020) believes that the parent company can help diversify financing

channels through financing and reduce the financial burden, and the subsidiary can also obtain more financing support to relieve the financing pressure. Then there is the business concentration hypothesis. X.A.jun,G.H.jian(2019) believe that the spin-off listing will help the enterprise to implement the core strategy and concentrate resources to develop the core business.

2.2. Performance of the Spin-off and Listing

The existing literature mainly includes financial performance and non-financial performance to analyze and evaluate the performance after the spin-off and listing. Capkun et al. (2009) found that there was a significant positive relationship between inventory performance and financial performance indicators in manufacturing enterprises. Abdel-Basset et al. (2020) measured financial performance through a set of financial ratios. Z.J.yi, W.J.wei:(2021) selected the growth, profitability and solvency indicators to evaluate the performance of mergers and acquisitions. Z.X.juan (2018) believes that state-owned enterprises should apply non-financial performance indicators to the performance evaluation system. X.Z.yu et al. (2022) made a comprehensive analysis of the spin-off and listing of Country Garden Service Company, combined with financial indicators and non-financial indicators.

2.3. Literature Review

According to the above literature, the current research on spin-off listing is mainly carried out along two paths: one is to explore the internal motivation of enterprises to choose spin-off listing; the other is to evaluate the impact of spin-off listing on the performance of enterprises. Due to the differences in the research samples, evaluation criteria and quantitative indicators selected by scholars, the evaluation results of the effect of the spin-off listing are different. Although spin-off listing as a strategic choice has been widely studied and discussed, there are still many details and deep-seated issues worth further exploration.

3. Railway Construction Heavy Industry Split Listing Case Introduction

3.1. Introduction to the Parent and Subsidiary Companies

3.1.1. Introduction to China Railway Construction Corporation

From the railway of the Chinese people's liberation army China railway construction group co., LTD. (hereinafter referred to as the "China railway construction"), its headquarters is located in Beijing, on March 10,2008,13, respectively in Shanghai and Hong Kong two financial center, respectively registered its A shares (stock code: 601186) and H shares (stock code: 1186), through which marks its active participation in the global financial market and significant position. As a significant influence and scale of oversize comprehensive construction group, China railway construction not only stick to "quality integrity, customer satisfaction" as the core business philosophy, and always carry out the innovation idea, through the technical innovation, product innovation and management mode of unremitting pursuit and deepening, to build a comprehensive and efficient quality system, its outstanding performance continuously get international recognition, especially in 2023 fortune magazine "world 500 enterprises" list won 43, at the same time in the "top 500 Chinese enterprises" also ranked 13th. The company's main business is not limited to a single field, but covers the project contracting, planning and design consulting, investment operations, real estate development, industrial manufacturing, material logistics, green environmental protection and industrial financial eight areas, its business scope not only covers more than 130 countries and regions around the world, at the same time show its broad vision and far-reaching influence. Now, China Railway Construction has gradually transformed from the initial industry mode of construction contracting, and developed a one-stop comprehensive service ability to provide owners with

the whole process from project planning to implementation. The formation of this ability marks its leadership position and innovative spirit in the industry.

3.1.2. Introduction of China Railway Construction Heavy Industry Company

China railway construction heavy industry group co., LTD. (hereinafter referred to as the "iron construction heavy industry") was founded in 2006, affiliated to China railway construction co., LTD., is the focus of high-tech, two depth fusion demonstration enterprise countries, on June 22,2021 in the board (stock code 688425), A state a-share split first, construction machinery industry first kechuang board listed, professional equipment manufacturing to raise the largest kechuang board record.

CRCC focuses on the differentiation and customized R & D and manufacturing of high-end equipment, adhering to its unique development concept -- Focus on products filling the gaps in the industry. Its number of core technologies have reached the world's leading level and have complete independent intellectual property rights. The company has successfully built three mature industries, such as roadheader, tunnel equipment and rail system, and actively expanded to a number of emerging industrial sectors. With its excellent product strength, CRCC has a wide influence in the world. For example, in 2024, CRCC ranked 33rd among global construction machinery manufacturers and 6th among Chinese construction machinery manufacturers, showing its leading position and influence in the industry.

3.2. The Spin-off and Listing Process of the China Railway Construction Heavy Industry Corporation

3.2.1. The Spin-off Process

Table 1. Main timeline of the split process

date	event
On December 19,2019	China Railway Construction plans to spin off its subsidiary, Railway Construction Heavy Industry, to the science and technology Innovation Board, issuing a spin-off plan
On April 2,2020	China Railway Construction issued a listing plan to spin off its subsidiary Railway Construction Heavy Industry to the Science and Technology Innovation Board (revised)
On April 8,2020	China Railway Construction Corporation issued the notice of the second extraordinary shareholders' meeting in 2020
On April 28,2020	The shareholders' meeting deliberated and passed the spin-off of the railway construction heavy industry to the science and technology innovation board listing proposal
On June 15,2020	The Shanghai Stock Exchange accepted the application for listing on the railway construction and heavy engineering innovation board
On June 22,2021	CRCC made an initial public offering on the Shanghai Stock Exchange and officially listed it on the science and Technology Innovation Board

China Railway Construction chose to list China Railway Construction Heavy Industry to the Science and Technology Innovation Board in China in accordance with the Regulations on The Domestic Listing of Subsidiaries of Listed Companies issued by the China Securities Regulatory Commission in 2019. The spin-off process mainly includes determining the spin-off proposal and the split application stage. According to the main time line of Table 1, it is summarized as follows. First of all, in 2019, China Railway Construction proposed the plan of the spin-off of Railway Construction Heavy Industry to the Science and Technology Innovation Board, and then the relevant matters of the plan were revised and the revised version of the spin-off plan was released. Then CRCC issued the notice of the second extraordinary general meeting of shareholders in 2020, which explained the time and place of the meeting, and the matters of

the meeting were to vote on the separation of China Railway Construction Heavy Industry. Then, at the extraordinary general meeting of shareholders on April 28, the motions were passed by more than two-thirds of the total number of shareholders with valid voting rights, and by more than two-thirds of the voting rights held by the small and medium shareholders attending the meeting. After determining the spin-off plan, China Railway Construction submitted an application to the Shanghai Stock Exchange, and was successfully accepted by the Shanghai Stock Exchange. Finally, it was successfully listed on the Shanghai Stock Exchange on June 22, 2021, and officially listed on the science and Technology Innovation Board.

3.2.2. Rational Analysis of the Spin-off and Listing

Table 2. Comparison of requirements for spin-off listing regulations

	China Railway Construction Corporation Limited	Railway construction heavy industry	Provisions on the Pilot Domestic Listing of the spin-off of the Subsidiaries of Listed Companies
Listing time requirements	In 12 years	/	At least 3 years
Continuous profit time	More than 3 years	/	Three fiscal years
The cumulative net profit of 3 years after deducting the net profit of the proposed split subsidiary	fifty-five billion	/	No less than 600 million
The proportion of net profit in the latest fiscal year	/	6.76%	Not more than 50% of the parent company
Proportion of net assets in the most recent fiscal year	/	3.40%	Not more than 30% of the parent company
Ownership ratio of directors, senior executives and related parties	0	0	The parent company shall not exceed 10%, and the subsidiary company shall not exceed 30%

The decision of domestic spin-off listing is mainly affected by the new domestic spin-off regulations issued by the CSRC in 2019. The introduction of the new regulations provides strong support for CRCC to choose the spin-off listing in China. The success of the spin-off will not only bring capital to the parent company, but also help promote the long-term development of CRCC. The spin-off complies with the "Provisions on the Pilot Domestic Listing of Subsidiaries of Listed Companies". According to the requirements shown in Table 2, the parent company China Railway Construction has met the listing requirements of more than 12 years and more than 3 years, and has remained profitable. After deducting the net profit of the planned spin-off, the parent company's cumulative net profit also exceeded 600 million yuan. However, the net profit of the subsidiary Railway Construction Heavy Industry in the last fiscal year does not exceed 50% of the parent company, and the net assets account for no more than 30% of the parent company. Finally, since the shareholders of CRCC are China Railway Construction and China Civil Engineering Group Co., LTD., there is no case that the directors and senior managers of CRCC and their affiliated parties hold the shares of CRCC. These regulations and conditions ensure the compliance and feasibility of the spin-off listing, and provide a strong guarantee for the development of the railway construction heavy industry.

3.3. Analysis of the Motivation for the Split and Listing of China Railway Construction Heavy Industry

3.3.1. China's Economy

In 2019, The State Council pointed out that to promote the high-quality development of manufacturing industry, it is necessary to strengthen the industrial base and technological innovation capacity, and accelerate the construction of a manufacturing power. The construction of super engineering cannot be separated from super equipment, and we need to rely on the high-quality development of equipment manufacturing industry. At the same time, under the background of increasingly fierce competition in the global economic pattern and rapid technological development, CRCC, as a leader in the industry, urges it to actively respond to the national high-quality development policy. In the same year, China Railway Construction put forward to build the bottom line of long-term survival and development of enterprises, that is, to "quality iron construction" as the goal, and is committed to maintaining a leading position in the fierce market competition.

Under the control of the parent company China Railway Construction, the subsidiary CRCC cannot fully give full play to the characteristics of independent innovation, but after the separation, the various business units of CRCC can become more flexible and can quickly respond to market changes and customer needs. For a state-owned enterprise with a diversified business, this structural flexibility is a key factor in innovation as it allows for rapid decision making, experimenting with new ideas and adapting to new technologies. At the same time, the reform measures of spin-off and listing can provide better capital allocation opportunities for CRCC, enabling it to focus more on high-quality research of products and improve its independent innovation ability, so as to effectively boost the high-quality development goal.

3.3.2. Get Financial Support

In the construction machinery industry, China Railway Construction Corporation and its subsidiary CRCC Corporation are facing a relatively complex working environment, which requires them to constantly improve their product technology research and development to meet customers' needs in a variety of scenarios, and then strengthen the company's core competitiveness. Despite its strong operating profits, CRCC, its subsidiary, relies heavily on the allocation of funds. Given that many of China's subsidiaries also need financial support, the funding is relatively limited. The main challenges facing CRCC are the upgrading of existing product technologies, the development of new technologies and the launch of new products, which all require substantial financial support. The spin-off and listing of CRCC can open up new financing channels for it in the capital market, and the company's financial freedom can also be significantly improved. According to its prospectus, the funds raised will mainly be mainly used for research and development and application projects and production base construction projects, which will play a decisive role in solving the key technical problems of its main products and help them to make important breakthroughs in technological innovation, and thus occupy a favorable position in the fierce market competition.

3.3.3. Focus on Developing the Core Business

Nuclear theory emphasizes enterprises should focus on its core business, can be seen from the company profile of iron built heavy industry main business is only part of China railway construction, through the implementation of spin-off listing strategy, iron construction heavy industry can be its business focus more clearly focused on differentiation and customized high-end equipment research and development manufacturing, enhance the company's core competitiveness in the engineering machinery industry. Focusing on the core business, CRCC can more effectively allocate and utilize financial, human and technical resources into the business sectors with the best technology and market advantages, which not only greatly

improve the efficiency of research and development and product innovation, but also accelerate the marketing of new technologies and new products. It also helps CRCC to respond more quickly to market changes and customer demand, and provide more specialized and customized solutions to effectively enhance the market competitiveness of products and services, thus winning more customers and market share for the company worldwide.

4. Performance Analysis of the Spin-off and Listing of China Railway Construction Heavy Industry Corporation

4.1. Financial Performance

4.1.1. Debt Repayment Indicators

Table 3. Debt repayment indicators for 2018-2023

Indicator / year		2019	2020	2021	2022	2023
Asset-liability ratio of (%)	Railway construction heavy industry	52.86	51.37	37.38	34.81	34.93
	Industry average	47.33	48.61	45.61	40.79	47.83
current ratio (%)	Railway construction heavy industry	1.31	1.24	2.03	2.16	1.92
	Industry average	2.23	2.00	2.26	2.77	1.63
quick ratio (%)	Railway construction heavy industry	1.02	0.97	1.53	1.51	1.33
	Industry average	1.59	1.59	1.76	2.23	1.13

As can be seen from Table 3, the asset-liability ratio began to decline in 2021 and was below the industry average, which is due to the massive fundraising of the company. In terms of current ratio and quick ratio, in 2019 and 2020 annual decline and lower than the industry average, the main reason is the country began in 2018, the new income criteria, the advance payment report adjustment for the contract liabilities, contract liabilities, 2019 company allocated 2.7 billion yuan cash dividends, and the company to iron build gold rent associated sales amount reduced led to reduce the total current assets. After 2021 monetary funds, accounts receivable, inventory are increased 1 billion yuan of above, and the short-term borrowing by 1.6 billion yuan, and the 2021, current ratio reached 2.03 and quick ratio reached 1.53, shows that the company liquidity is good, although both fell in 2023, but for the first time higher than the industry average, visible spin-off listed increase its solvency.

4.1.2. Operating Indicators

Table 4. Operating indicators for 2018-2023

Indicator / year		2019	2020	2021	2022	2023
Accounts receivable turnover rate of (%)	Railway construction heavy industry	1.67	1.43	1.41	1.37	1.26
	Industry average	4.81	4.90	4.95	3.94	2.90
Inventory turnover rate of (%)	Railway construction heavy industry	2.28	2.28	2.24	1.66	1.51
	Industry average	3.61	4.09	4.06	3.27	2.49
Total asset turnover rate of (%)	Railway construction heavy industry	0.47	0.47	0.48	0.43	0.41
	Industry average	0.81	0.81	0.79	0.61	0.56

It can be seen from Table 4 that the accounts receivable, turnover rate and inventory turnover rate of CRCC all show a trend of decline year by year and are lower than the industry average, mainly because of the long settlement cycle of sales payment, slow payment collection, increased accounts receivable, high product customization and high unit price of equipment. Although 2021 split listed iron construction heavy industry total assets turnover in the industry decline get small increase, but the next two years is still declining, that the company operating ability declined, in asset management and operational efficiency, need to further optimize the allocation of resources and improve the utilization rate of assets.

Table 5. Proportion of accounts receivable of the company
unit: 100 million yuan

Indicator / year	2019	2020	2021	2022	2023
bill and account receivable	48.98	62.54	79.14	77.51	89.49
Proportion of receivables: (%)	50.55	61.86	55.19	51.33	60.06

According to the analysis of the proportion of receivables in Table 5, the proportion of accounts receivable is too high, which occupies a large amount of working capital, thus affecting the operational efficiency. Due to the characteristics of non-payable receivables, relatively weak liquidity and the risk of bad debts, it is easy to form non-performing assets, thus slowing down the strategic pace of the company.

4.1.3. Earnings Indicators

Table 6. Earnings indicators for 2018-2023

Indicator / year	2019	2020	2021	2022	2023
Net interest rate on sales: (%)	21.01	20.60	18.24	18.26	15.89
Operating gross profit margin of (%)	33.13	34.39	32.38	34.07	31.36
Return on equity: (%)	21.51	20.55	15.53	12.48	9.98
Earnings per share (RMB / share)	0.40	0.41	0.38	0.35	0.30

Iron construction heavy industry sales net interest rate, operating gross margin, return on net assets, earnings per share as a whole, on the one hand is due to the spin-off, equity and net assets increased dramatically, on the other hand, the company's main business involves tunnel boring machine, rail transit equipment and special professional equipment three aspects, product demand is closely related to urban rail transit investment. In 2018, the national government issued the policy of Opinions on Further Strengthening the Planning and Construction Management of Urban Rail Transit, which put forward and implemented stricter application conditions and approval procedures for the construction of urban rail transit system. Under its influence, only four urban urban rail transit construction projects were approved in 2019. In recent years, the trend of the government to reduce the scale of rail transit construction has become more and more intense. Although the approval volume of urban rail transit construction has picked up, there are still great uncertainties. Rail transit equipment has been hit hard, bringing the greater risk and impact to the company's operation and profit.

4.1.4. Sustainable Development Capacity Indicators

According to the analysis of the proportion of receivables in Table 5, the proportion of accounts receivable is too high, which occupies a large amount of working capital, thus affecting the operational efficiency. Due to the characteristics of non-payable receivables, relatively weak liquidity and the risk of bad debts, it is easy to form non-performing assets, thus slowing down the strategic pace of the company.

Table 7. Sustainable development capacity indicators for 2018-2023

Indicator / year		2019	2020	2021	2022	2023
Operating revenue growth rate of (%)	Railway construction heavy industry	-8.19	4.52	25.05	6.14	-0.73
	Industry average	15.44	31.75	22.05	-7.35	4.68
Net profit growth rate of (%)	Railway construction heavy industry	-4.79	2.45	10.74	6.26	-13.59
	Industry average	29.31	95.25	4.64	-5.83	11.25

4.2. Non-financial Performance

4.2.1. Independent Innovation Ability

Table 8. Evaluation index system of independent innovation ability of central enterprises

Level 1 indicators	Secondary indicators	Level 3 indicators	Indicator measurement method
Innovation investment capacity	R & d investment capacity	Proportion of total R & D investment in operating revenue (A1)	R & D investment / operating revenue
		Capitalization proportion of R & D investment (A2)	R & D investment capitalization amount / total R & D investment
	R & d personnel investment capacity	Ratio of R & D personnel number (A3)	Number of development staff / total staff
Innovate output capacity	Patent research and development capabilities	Number of patents (B1)	The total amount of enterprise patent authorization during the reporting period
		Patent Quality (B2)	The number of invention patents authorized during the reporting period
		Independent R & D capability (B3)	The number of independent R & D patents of enterprises during the reporting period
	economic benefits	Brand and Patent Value (B4)	Value of intangible assets
		Total Profit Growth rate (B5)	Profit growth of the current period / total profit of the base period
	environmental benefit	Green Patent Application Number (B6)	Total number of green patent applications of enterprises
	social effectresults benefit	Taxes payable (B7)	
		Address employability (B8)	Total number of employees
Continuous innovation ability	Enterprise sustainable management ability	Total Assets Turnover Rate (C1)	Total operating income of current period 2 / (total assets of current period + total assets of previous period)
		Proportion of accounts receivable funds in total assets (C2)	Accounts receivable / total assets
		Share of inventory in total assets (C3)	Inventory / Total Assets
	Continuous investment ability of enterprise innovation activities	R & D Investment Growth rate (C4)	Increase of current R & D investment / total R & D investment in the base period
Innovate the ecological environment	Enterprise innovation environment	Urban Innovation and Entrepreneurship Index (D1)	

In considering the scientific and realistic principle, system integrity principle, operability principle and dynamic continuity principle, the following build a set of comparison system and comprehensive central enterprise independent innovation ability evaluation index system,

which includes the general enterprise independent innovation ability evaluation index, at the same time can highlight the central enterprises in independent innovation is given the special requirements. The following evaluation index system of independent innovation ability of central enterprises is constructed by combining the four dimensions of innovation input ability, innovation output ability, continuous innovation ability and innovation ecological environment. (As shown in Table 8).

CRCC belongs to a professional equipment manufacturing enterprise among the central enterprises. Therefore, in order to facilitate comparison, this article selects all 18 professional equipment manufacturing enterprises of the same central enterprises as the object of this research according to the classification standards of CSRC. In addition, some data for 2022 and 2023 are not available. Considering the comparability and completeness of the data, only the data from 2021 are selected to evaluate the above 16 indicators. After obtaining the relevant scoring results, the correlation of each index was first tested, and the test results found that the correlation coefficient between each index was less than 0.8, indicating that there was no obvious correlation between each index, so we chose to keep all the evaluation indexes. In addition, the evaluation criteria of forward indicators and reverse indicators are not consistent, etc., the larger the forward indicators, the better, while the reverse indicators are the opposite. Therefore, the extreme method is used to normalize each index and map the index values to [0,1].

After the above treatment, the entropy weight method is used to give different weights to the above indexes. Finally, according to the empowerment results, the comprehensive score of independent innovation ability of 18 enterprises is calculated, and the top five scores are shown in Table 9. Through analysis, it can be found that the independent innovation ability of TieCC is as high as 0.5542, ranking first among the 18 enterprises. This shows that the independent innovation ability of CRCC is at the leading level in the industry, and it is precisely relying on the independent innovation ability that CRCC has achieved a breakthrough from following to leading.

Table 9. Scores of the top five companies

corporate name	total points	ranking
Railway construction heavy industry	0.5542	1
Heaven and earth science and technology	0.4681	2
China railway industry	0.4198	3
Zhenhua heavy industry	0.4018	4
China a heavy	0.3653	5

4.2.2. Brand Influence

In 2021, CRCC was successfully listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange, marking a new stage of the company's development. In the second year after the listing, CRCC was quickly selected into the list of the top 100 listed companies in China, fully demonstrating its strong operation and profitability. In terms of technological innovation, the world's largest diameter of 23 meters was awarded the "2022". As an important technological breakthrough, the successful research and development and application of this boring machine further enhanced the competitiveness and brand influence of CRCC in the domestic and foreign markets. From 2022 to 2024, iron construction heavy industry in the global top 50 construction machinery manufacturers ranking rising, from 2022 to 2024, the ranking is not only the iron construction heavy industry in product quality, technical level and market service of comprehensive strength, also further consolidate its leading position in the global heavy construction machinery manufacturing industry. In short, through the spin-off, it has not only enhanced its brand influence, but also consolidated its leading position in the

global construction machinery manufacturing industry. Its honors and achievements show its strong competitiveness and broad development prospects in the international market.

5. Conclusion

The spin-off and listing of CRCC not only marks a successful practice of the spin-off and listing policy of China's capital market, but also shows the strategic thinking of enterprises to respond to the policy guidance and use the capital market for structural adjustment and business optimization. This strategic initiative not only helps enterprises to realize the optimal allocation of resources, but also injects new vitality into the long-term development of enterprises. The incentives for the spin-off listing of CRCC are multi-dimensional, involving high-quality development of enterprises, financial support, core business development and improvement of corporate governance structure. These incentives are intertwined, which together constitute the decision-making basis for the spin-off listing and reflect the comprehensive consideration of enterprises in the complex market environment.

Looking into the future, the performance of CRCC after the spin-off and listing will continue to attract the attention of the market. Enterprises should continue to pay attention to the dynamics of the capital market, evaluate the impact of the spin-off and listing on the long-term strategic goals of enterprises, and provide continuous reference and reference for other enterprises' spin-off and listing. At the same time, regulators should continue to improve relevant policies to promote the healthy development of the capital market, ensure the standardized operation of the spin-off and listed enterprises, and protect the legitimate rights and interests of investors.

References

- [1] W.S.qun: Case analysis of the material asset reorganization performance of listed companies, Chinese Certified Public Accountants, vol.2022 No.5,p.108-111.(In Chinese).
- [2] W.Jia:Research on improving the countermeasures of a-share spin-off and listing under the registration system,Southwestern Finance,vol. 2020 No. 04,p.55-64.(In Chinese).
- [3] X.A.jun,G.H.jian:Research on the motivation and performance of enterprise spin-off listing, Accounting communication, vol.2019 No.11,p.52-56.(In Chinese).
- [4] Capkun V, Hameri A P:Weiss L A. On the relationship between inventory and financial performance in manufacturing companies,International Journal of Operations & Production Management, vol.29(2009) No. 8,p.789-806.
- [5] Abdel-Basset M, Ding W, Mohamed R, et al:An integrated plithogenic MCDM approach for financial performance evaluation of manufacturing industries,Risk management,vol. 2020 No.22,p.192-218.
- [6] Z.J.yi, W.J.wei:Acquisition and performance analysis of Shenzhen companies, Securities Market Herald, vol.2020 No.11,p. 62-67.(In Chinese).
- [7] Z.X.juan:The impact of non-financial performance indicators on the performance of state-owned enterprises,Scientific Research Management, vol.2018 No.39,p. 165-170.(In Chinese).
- [8] X.Z.yu, S.Min, L.Y.song, Y.Jie:The impact of the spin-off and listing on the value of the enterprise groups,Economic Management of East China,vol.36(2022) No.03,p.106-118.(In Chinese).