# Evaluation and Optimization of Financial Strategy of Listed Companies in China's Communication Service Industry

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*Abstract:* The article selects the 2016-2019 financial data of 25 listed companies in the communication service industry. Using the financial strategy matrix model as an analysis method, it conducts a static and dynamic comprehensive analysis of the operating status of listed companies in the communications service industry through the value creation dimension and the cash surplus and deficiency dimension, and gives optimization suggestions. And give optimization suggestions. The study found that listed companies in the communications service industry are in a state of value-added cash shortage as a whole, and corporate managers should raise funds through multiple channels to meet the needs of sales growth and maximize corporate value. The correlation test shows that the article uses the financial strategy matrix to analyze the communication service industry is reasonable.

*Keywords:* Communication service industry, Financial strategy matrix model, Financial strategy evaluation.

## I. INTRODUCTION

China's "14th Five-Year Plan" proposes to "accelerate the construction of fifth-generation mobile communications, industrial Internet, and big data centers" to enhance the national strategic innovation level. Today, with the rapid development of science and technology, communication technology is evolving rapidly, combining with emerging industries to form a promising communication service industry. Since 2016, with the influx of capital, this field has shown rapid growth. At the same time, the communication service industry, as a high-tech industry, has high operating risks and large differences in operating conditions between enterprises. The article attempts to apply a more unique financial strategy matrix analysis method to China's listed communication service companies, analyzes the current situation of value creation and cash flow of listed companies in the communication service industry, and discusses the outliers of the value creation dimension, which will affect the actual financial management of the company and the future of the industry Suggestions for the development of strategic planning. The research of the article has certain theoretical exploration and practical application significance. In theory, it enriches the research perspective of strategic choices in the communication service industry and supplements the research on the financial strategy of the communication service industry. In practice, the strategic choice based on the financial strategy matrix can help communication service companies to find their own position in the

industry, further clarify the development direction of financial strategy, and put forward optimization suggestions on this.

## II. LITERATURE REVIEW

Havavini, Viallet used a matrix to connect value creation (return on invested capital-weighted average cost of capital) and cash surplus (sales growth rate-sustainable growth rate), and established an analysis tool for evaluating strategy [1] , Has received extensive attention from domestic and foreign scholars, the theory has been continuously improved, and a large number of case studies have been carried out. Cao Wei and Ye Ming used CR Sanjiu as an example to discuss the application of the financial strategy matrix. According to relevant financial indicators, they determined the quadrants of CR Sanjiu in different years, and compared and analyzed the actual financial strategy and the financial strategy matrix theory. The test of theory in practice provides reference [2]. Based on the 2013-2017 financial data of 26 listed companies in the China's gas industry, Zhang Haixia made a static and dynamic analysis of the distribution situation and operation trajectory of gas companies in the financial strategy matrix from the two dimensions of value creation and cash surplus and deficiency. Based on different quadrants, suggestions for improvement are proposed [3]. Based on the financial strategy matrix theory, Lai Xiuping and Nie Libing deeply analyzed the changes in corporate financial strategies during the service-oriented transformation of listed companies in China's vehicle manufacturing industry, revealing that the service-oriented transformation has led to a decline in the value performance and capital performance of the company in a short time. In the 2-3 years of service-oriented transformation, after increasing investment to form economies of scale and increasing service relevance, there is a significant positive performance in corporate value status and capital status [4]. At present, academic literature has analyzed the electrical, high-tech, and coal industries based on the financial strategy matrix, but no scholar has carried out this research in the communication service industry.

## III. SAMPLE SELECTION AND DATA SOURCES

As of 2019, there are 34 listed companies in China's communications service industry. In order to ensure objectivity and accuracy, and eliminate the overall changes in the industry caused by the 2020 epidemic, the research time frame is determined to be between 2016-2019. Excluding 8 companies listed after 2016 and 1 company suspended from listing, we finally obtained 4 annual data of 25 listed companies as the research sample. ROIC (return on invested capital), RGR (sales growth rate), and SGR (sustainable growth rate) come from the Cathay Pacific database. The overall WACC (weighted average cost of capital) of the industry in each year from 2016 to 2019 comes from the RESSET database.

## IV. EMPIRICAL MODEL AND VARIABLE DEFINITION

4.1 Financial Strategy Matrix Model

The financial strategy matrix, also known as the value creation/growth rate matrix, is an important analysis tool that links the two dimensions of value creation and cash surplus and deficiency to form four quadrants for evaluation and financial strategy formulation. For different dimensional quadrants, suggestions for different strategies are put forward. The matrix uses sales (real) growth rate (RGR)-sustainable growth rate (SGR) as the horizontal axis, and returns on invested capital (ROIC)-weighted

average cost of capital (WACC) as the vertical axis. The horizontal axis represents the dimension of cash surplus and deficiency, and the vertical axis represents the dimension of value creation.

Value creation dimension: (ROIC-WACC) actually means EVA (economic value added). When EVA>0, it means that the enterprise can fully compensate the cost of capital and create new value, that is, a value-added enterprise. On the contrary, when EVA<0, it means that the company cannot make up for the cost of capital paid and cannot create new value, that is, a value-impaired company.

Cash surplus and deficiency dimension: (RGR-SGR) represents the state of the company's funds. When (RGR-SGR)>0, it means that the company is short of cash and cannot meet the company's own sustainable development needs. On the contrary, when (RGR-SGR)<0, it means that the company's cash surplus can meet its own company's sustainable development needs.
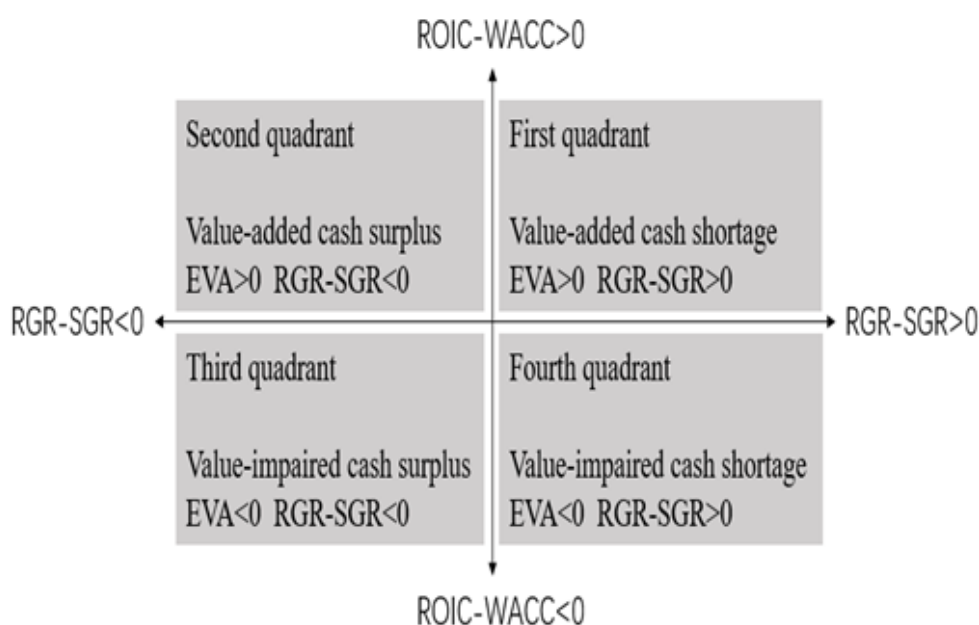


Fig. 1. Financial Strategy Matrix Quadrant Chart

From Fig. 1, when EVA and (RGR-SGR) are both greater than 0, there is a value-added cash shortage. At this time, the company can create new value for investors, but the actual growth rate of sales revenue is greater than the ideal growth rate. As a result, the sales growth rate does not match the cash flow status, and the cash demand cannot be met. When EVA is greater than 0 and (RGR-SGR) is less than 0, it is a value-added cash surplus. At this time, it can not only create new value, but also meet the cash required for the company's sales growth rate. When both EVA and (RGR-SGR) are less than 0, it is a value-impaired cash surplus. At this time, the company cannot create new value, but the cash demand for sales business development can be met. When EVA is less than 0 and (RGR-SGR) is greater than 0, it is a value-impaired cash shortage. At this time, the company not only cannot create new value, but also cannot meet the cash demand of the company's sales growth.

4.2 Variable definitions

The connotation and calculation formula of variables used in this paper are shown in Table I.

## TABLE I. INDEX CONNOTATION AND CALCULATION FORMULA

| Indicator name | Connotation | Formula |
|---|---|---|
| Sales growth rate | An important indicator for evaluating the development and growth of a company's sales business | Sales growth rate= (Total operating income of the current year-Total operating income of the previous year)/Total operating income of the previous year |
| Sustainable growth rate | The desired growth rate that the enterprise can achieve. Under the preconditions of maintaining operating efficiency and financial policies unchanged, and not issuing new shares. | Sustainable growth rate = (return on net assets × profit retention rate) / (1-return on net assets × profit retention rate) |
| Return on invested capital | Basic indicators for evaluating the profitability of investment funds | Return on invested capital = net operating profit after tax/total investment; |
| Weighted average cost of capital | Weighted average calculated based on the cost of capital of different financing methods | Weighted average cost of capital = debt capital cost rate * debt capital proportion * (1- income tax rate) + equity capital cost rate * equity capital cost proportion |

## V. ANALYSIS AND DISCUSSION OF EMPIRICAL RESULTS

5.1 Descriptive statistical analysis

Table II is a statistical summary of the 2016-2019 financial data of 25 listed companies in the communications service industry. It can be seen from Table II that the average sales growth rate is greater than the average sustainable growth rate, indicating that the overall development of the communications service industry is relatively fast, and there is likely to be a cash shortage problem. And the standard deviation of the sales growth rate is also greater than the standard deviation of the sustainable growth rate, which shows that the sales growth rate is more volatile than the sustainable growth rate, and there is a difference between the two. The average return on investment capital in 2016 and 2017 is greater than the average weighted average cost of capital in the industry, and the opposite is true in 2018 and 2019. It shows that the overall value creation of enterprises is showing a downward trend. And the degree of fluctuation of the former is greater than that of the latter, and there are also differences between the two.

## TABLE II. DESCRIPTIVE STATISTICAL CHARACTERISTICS OF EACH INDICATOR VARIABLE

| Variable name | Sample size | Average value | Standard deviation |
|---|---|---|---|
| Sales growth rate | | | |
| 2016 | 25 | 0.1704 | 0.3144 |
| 2017 | 25 | 0.1443 | 0.2849 |
| 2018 | 25 | 0.2528 | 0.5418 |
| 2019 | 25 | 0.0294 | 0.2093 |
| Sustainable growth rate | | | |
| 2016 | 25 | 0.0440 | 0.0758 |
| 2017 | 25 | 0.0476 | 0.0453 |
| 2018 | 25 | 0.0124 | 0.1217 |
| 2019 | 25 | -0.0508 | 0.2273 |
| Return on invested capital | | | |
| 2016 | 25 | 0.0505 | 0.0835 |
| 2017 | 25 | 0.0564 | 0.0400 |
| 2018 | 25 | 0.0260 | 0.1257 |
| 2019 | 25 | -0.0295 | 0.2387 |
| Weighted average cost of capital | | | |
| 2016 | 25 | 0.0292 | 0.0000 |
| 2017 | 25 | 0.0436 | 0.0000 |
| 2018 | 25 | 0.0375 | 0.0000 |
| 2019 | 25 | 0.0283 | 0.0000 |

5.2 Financial Strategy Matrix Analysis

5.2.1 Four quadrant distribution analysis

Through index calculation, the quadrants of 25 listed companies in the communications service industry from 2016 to 2019 are determined. The specific financial matrix distribution is shown in Fig. 2 -

Fig.5. The statistical summary of the changes and characteristics of each company's quadrant from 2016 to 2019 is shown in Table 4. The numbers shown in Figure 2-5 correspond to the numbers of listed companies in Table IV.

## TABLE III. AVERAGE LEVEL OF COMMUNICATION SERVICE INDUSTRY

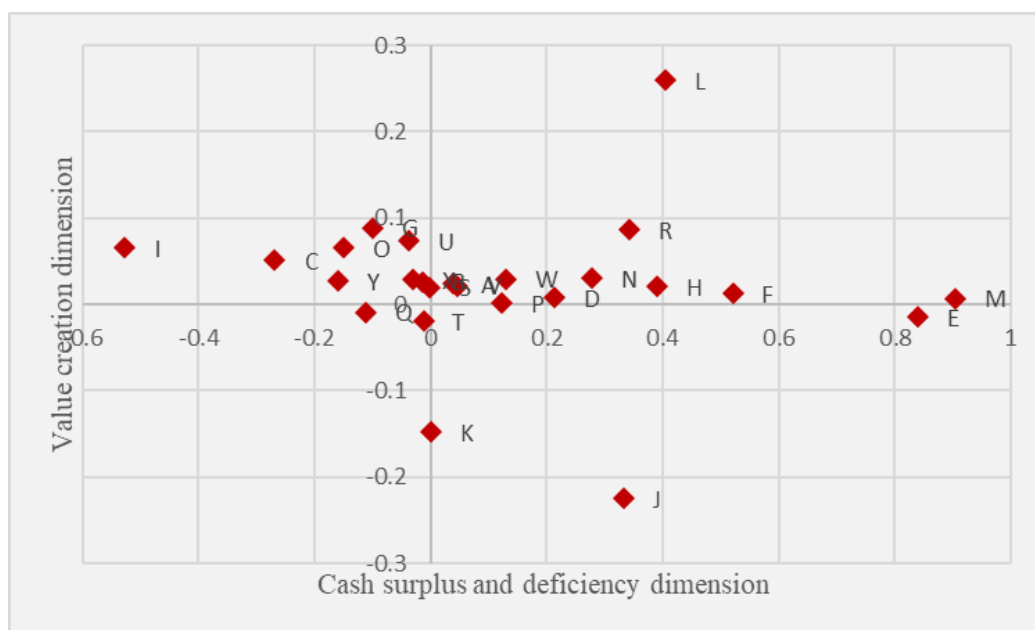| Years \ Dimension | Value status (ROIC-WACC) | Funding status (RGR-SGR) | Quadrant (type) |
|---|---|---|---|
| 2016 | 0.0213 | 0.1263 | The first quadrant (value-added cash shortage) |
| 2017 | 0.0128 | 0.0967 | The first quadrant (value-added cash shortage) |
| 2018 | -0.0115 | 0.2404 | The fourth quadrant (Value-impaired cash shortage) |
| 2019 | -0.0578 | 0.0802 | The fouth quadrant (Value-impaired cash shortage) |



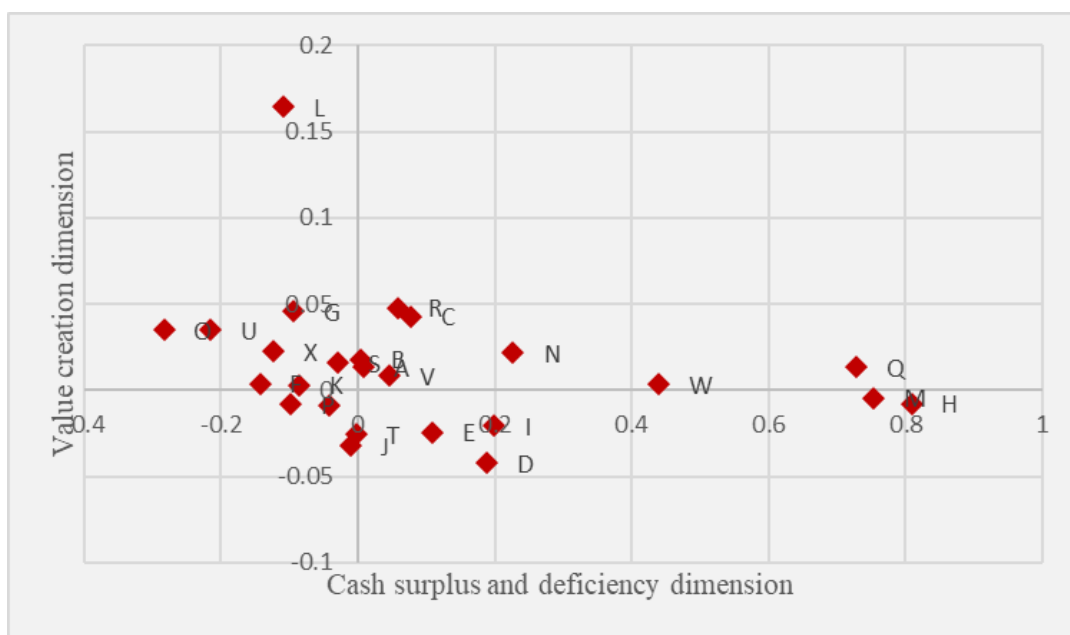Fig. 2. 2016 Quadrant Distribution of Listed Companies

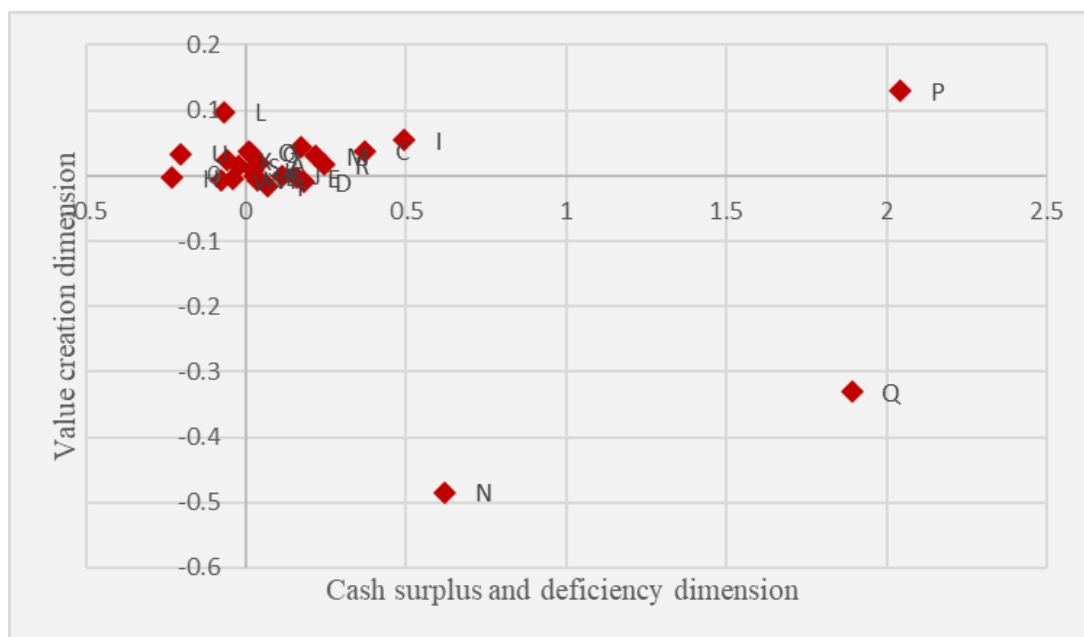Fig. 3. 2017 Quadrant Distribution of Listed Companies



Fig. 4. 2018 Quadrant Distribution of Listed Companies

Fig. 5. 2019 Quadrant Distribution of Listed Companies

## TABLE IV. AVERAGE LEVEL OF COMMUNICATION SERVICE INDUSTRY

| Company classification | Comp Stock codeNumber | Stock code | Company abbreviation | Quadrant changes from 2016 to 2019 | | | | Change between the first and second quadrants |
|---|---|---|---|---|---|---|---|---|
| Change only in one quadrant | A | 000156 | Wasu Media | I | I | I | I | √ |
| | R | 300494 | Century Network | I | I | I | I | √ |
| | U | 600637 | Oriental Pearl | II | II | II | II | √ |
| | X | 601929 | Jishi Media | II | II | II | II | √ |
| Change between the two quadrants | E | 002095 | Zhejiang Netsun | IV | IV | IV | II | × |
| | G | 002238 | Topway Video Communication | II | II | I | I | √ |
| | L | 300113 | Shunwang Technology | I | II | II | II | √ |
| | M | 300226 | Shanghai Ganglian | I | IV | I | I | × |
| | N | 300292 | Wutong Holding | I | I | IV | I | × |
| | O | 300295 | Everyday Network | II | II | I | II | √ |
| | P | 300413 | Mango Excellent Media | I | III | I | I | × |
| | S | 600037 | Gehua Catv Network | II | II | II | I | √ |
| | V | 600831 | Broadcast & Tv Network | I | I | III | III | × |

| | W | 600959 | Jiangsu Cable | I | I | III | III | × |
|---|---|---|---|---|---|---|---|---|
| | B | 000665 | Hubei Radio & Television | II | I | IV | III | × |
| | C | 000889 | Zjbc | II | I | I | IV | × |
| | D | 000917 | Tv & Broadcast Intermediary | I | IV | IV | III | × |
| | F | 002123 | Montnets Cloud Technology | I | II | IV | IV | × |
| Changes between the three quadrants | H | 002315 | Focus Technology | I | IV | III | I | × |
| | I | 002464 | Whole Easy Internet | II | IV | I | IV | × |
| | J | 002467 | Net263 | IV | III | I | I | × |
| | K | 300052 | Zqgame | III | II | I | I | × |
| | Y | 603000 | People.Cn | II | III | I | I | × |
| | Q | 300467 | Xunyou Technology | III | I | IV | IV | × |
| | T | 600050 | China unicom | I | I | II | III | × |
| Number of companies changing in the first or second quadrant | | | | 21 | 17 | 16 | 16 | 8 |

5.2.1.1 Static analysis

According to statistics, there were 21 listed companies in the first or second quadrant in 2016, 17 in 2017, 16 in 2018, and 16 in 2019. The first or second quadrants where listed companies are value-added each year account for more than 64% of all listed companies in the industry. From the perspective of value creation, it can be seen that the vast majority of listed companies in the communications service industry are value-added companies. From the statistics in Fig.2 - Fig.5 and Table III, we can see that the average value status and capital status of the communication service industry are in the first quadrant from 2016 to 2017, and in the fourth quadrant from 2018 to 2019. Therefore, it can be concluded that the 25 listed companies in the communications service industry are in a state of shortage of cash as a whole. However, careful observation reveals that the average value creation of listed companies in the communications service industry has gradually declined, changing from value appreciation to value loss in 2017-2018. The specific reasons for this phenomenon can be seen in the company's concept word frequency analysis.

5.2.1.2 Dynamic Analysis

According to the changes in the quadrants of listed companies from 2016 to 2019 in Table 4, the following rules are found: in four year ,the changes between the first and second quadrants (including those that only change in the first quadrant or the second quadrant ) totally have 8 companies .The proportion of listed companies is close to about one third of the listed companies in the entire

communications service industry. Of the remaining 17 listed companies that have changed between other quadrants, 14 companies have been in the first or second quadrant for two years or more. The overall dynamics show a change between one and two quadrants, with the phenomenon of turning back on the horizontal axis. Because when the sales business grows too fast, the company's cash flow cannot meet the business growth, and the company will slow down the sales growth rate at this time. When the sales growth is too slow, the cash demand for sales business decreases, and the company has a surplus of cash. At this time, the company will use this part of the remaining cash to stimulate sales growth.

### 5.2.2 Company concept word-frequency analysis

The declining average value creation in the communication services industry from 2016-2019 has seen a shrinkage in value, and to find the reason for this, a correlation map was generated based on the word frequency analysis of the concepts to which the 25 companies belong as shown in Fig. 6. As can be seen from Fig. 6, the company concepts are divided into three major segments. The first segment is mainly the Internet-derived industry segment such as Internet+medicine, Internet+mobile games and communications, the second segment is mainly the cultural media segment such as film and television entertainment, radio and television and virtual reality, and the third segment is mainly the company attribute categorization segment such as reform of state owned assets, FTSE Russell concept and S&P Dow Jones. The first and second sectors are growing during 2016-2019, but at the same time, the two sectors are increasingly regulated, facing competition is becoming more intense, facing the situation of industry reshuffling and the emergence of a "head concentration" trend. Some of the less competitive companies have suffered huge value loss, affecting the average level of the industry. At present, the communication service industry is in a period of national strategic development and deepening changes in the industry, and the overall development prospects of the industry are promising. Therefore, the continuous decline in value creation is clearly not due to the overall decline of the industry.
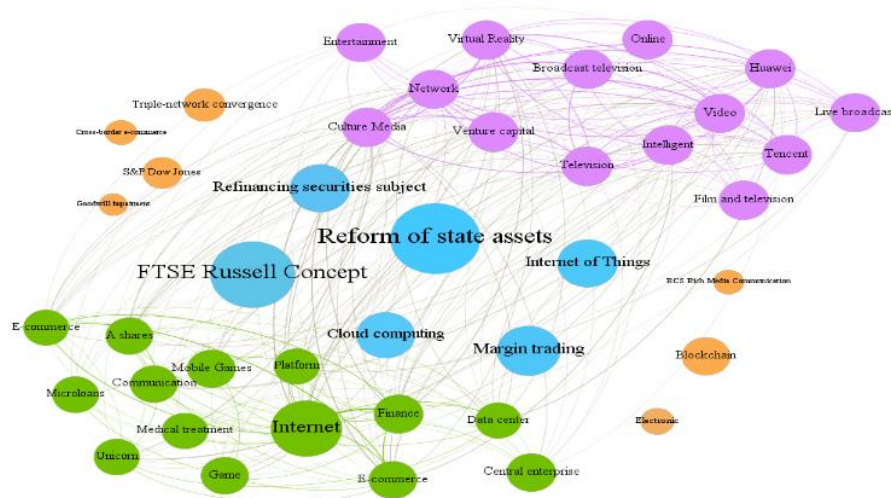


Fig. 6. Analysis of Company Concept Association Diagram

From the four quadrant distribution chart in 2018, 2019 can be seen in three companies with extreme values. 2018 Wutong Holding Group LTD (N) subsidiary Adin Media LTD by the Internet advertising industry policy tightening and its own operating business structure adjustment, its gross profit margin fell significantly, resulting in its net profit decreased significantly compared with the same period of the previous year; 2019 Whole Easy Internet Technology LTD (I), Sichuan Xunyou Network Technology LTD (Q) its acquired companies by industry policy changes and significant uncertainties in future earnings, and a huge goodwill impairment was made. Excluding these three companies, there was a small value loss in 2018, which was closely related to Sino US trade war and overall industry downturn in 2018, but followed by a more substantial value creation growth in 2019. These three companies should therefore carefully analyze their operating results for internal reasons.

5.2.3 Suggestions on financial strategy adjustment

**The first quadrant: Value-added cash shortage.** In 2019, 11 of the listed companies in the communications service industry are located in this quadrant. The operating activities of these companies will create value, but the cash generated cannot support sales growth. Such companies urgently need to solve the problem of cash shortage. In the short term, corporate managers can raise funds, including increasing borrowings or issuing additional shares to meet the needs of sales growth; if they want to achieve long-term rapid growth, they can streamline their business scale or increase sustainable growth rates, including: 1) Stripping off bad business. Enter the market segment of the communication service industry, such as focusing on the construction and development of its own strong aspects such as electronic information, news media, etc., in order to achieve a balance between sustainable growth rate and sales growth rate, use surplus funds to develop core business and increase retained business The ability to create value. 2) Control costs. Carry out activity analysis, so that operators, activity objects, and activity tools are scientifically arranged and arranged to achieve a reasonable process structure, shorten job time, reduce non-value-added jobs, and improve the efficiency of value-added jobs. Reduce the production cost of products and services. 3) Reduce working capital and increase prices. Optimize the service process, reconstruct the upstream and downstream value chain after evaluation, reduce capital occupation, and change the price image. 4) Change the financial policy. Appropriately increase borrowings within the scope of solvency, and issue additional shares without changing the optimal capital structure. 5) Mergers and reorganizations. You can choose to merge mature enterprises with abundant remaining funds in the same industry and with good capital status but slow development.

**The second quadrant: value-added cash surplus.** In 2019, 5 of the listed companies in the communications service industry are located in this quadrant. Corporate activities in this quadrant create value, while the growth rate difference is less than zero, generating surplus cash. Such companies should pay more attention to how to use surplus cash to expand their main business, make the sales growth rate close to the sustainable growth rate, and maintain the company's ability to create value. Specifically, it includes keeping up with industrial policies, accelerating the strategic layout of emerging areas of communication services, occupying the forefront of strategic positions, and expanding related businesses with strong value-added communication services. Effective assessments should be made when investing, and project identification and risk management should be strengthened. If there is still cash surplus after accelerating growth, then you can consider returning cash to shareholders by increasing dividend payments and share repurchases.

**The third quadrant: deductible cash surplus.** 2019 communications services in five listed companies located in this quadrant, the quadrant of communication service companies can not bring value creation for investors, but have cash savings, resources are not fully utilized, as companies will enter a recession can not be changed in time period. Such companies should focus on analyzing the reasons for poor profitability, increasing the rate of return on investment capital or reducing their capital costs. At this time, companies should appropriately dispose of communication service projects with low yields and pay attention to changes in the target capital structure. When the company's value growth is not obvious, they should consider selling related businesses, stop losses in time, change the direction of corporate strategy development, and use surplus cash to gradually switch to profitability. project.

**The fourth quadrant: deductible cash shortage.** In 2019, 4 of the listed companies in the communications service industry are located in this quadrant. Companies in this quadrant can neither create value nor have cash to support their own development. The key issue for such enterprises is how to get out of the dual dilemma of cash shortage and value loss. Accelerated growth will only cause continued loss of corporate value, and the company has no surplus cash to invest in new profit growth points. At this time, it should stop losses quickly. Given the broad development prospects of the industry as a whole, nearly 40% of the selected communication service companies are caught in such a dilemma in 2019. It shows that the current poor profitability of the company is not caused by the industry recession, but by the company's own factors. At this time, different companies should thoroughly analyze their business activities based on their own different businesses. They can consider optimizing their business scale and controlling costs; they can consider selling businesses with poor profitability; or conduct a thorough asset reorganization in order to change the current value loss. At the same time, pay more attention to changes in the industry. After the asset reorganization, the supplementary cash flow will be invested in projects with high profitability and good development prospects.

## VI. CORRELATION TEST

The financial strategy matrix uses two dimensions of value creation and cash surplus as the basis for dividing it into four different types of quadrants. In order to further verify the rationality of the use of financial strategy matrix by listed companies in my country's communication service industry, the article uses SPSS 24.0 software and selects the Pearson correlation coefficient to test the two dimensional classifications.

6.1 Classification test of value creation dimension

This article selects the price-to-sales ratio of listed companies in the communications service industry from 2016 to 2019. The price-to-sales ratio is used to measure the investment value of the target company. It is equal to the ratio of stock price per share to sales per share. The smaller the market-sales ratio, the greater the investment value of the company. Moreover, using the price-to-sales ratio is more accurate than the price-earnings ratio to test the company's value status, because it is an indicator calculated based on operating income and will not be affected by the data of loss-making companies. The test results of value status and price-to-sales ratio are shown in Table V.

## TABLE V. ALUE STATE CORRELATION TEST

|  |  | Value status | Price-to-sales ratio |
|---|---|---|---|
| **Value status** | Pearson correlation coefficient | 1 | -0.445 |
|  | Significance level |  | 0.026 |
| **Price-to-sales ratio** | Pearson correlation coefficient | -0.445 | 1 |
|  | Significance level | 0.026 |  |

It can be seen from Table V that the Pearson correlation coefficient is -0.445. Although there is no good linear relationship, the sig value of 0.026 is less than 0.05, which is a significant correlation, that is, there is a negative correlation between the value status and the market-sales ratio. It shows that when the communication service industry uses the financial strategy matrix, the classification of the dimension of value creation is reasonable.

6.2 Classification test of cash surplus and deficiencies dimension

The dimension of cash surplus and deficiency is divided based on the relationship between sales growth rate and sustainable growth rate. There are prerequisites for the use of sustainable growth rates, including maintaining the corporate capital structure and operating efficiency unchanged, and not issuing new shares. However, many companies cannot meet these prerequisites in actual operations, so there will be a variety of factors that affect different capital status. From the previous analysis, we know that when the sales growth rate is greater than the sustainable growth rate, the company's funds are in a state of shortage, and internal funds cannot meet business growth. The external financing methods generally include equity financing and debt financing. Equity financing may cause agency costs and dilution of control rights. Most companies will give priority to debt financing, which is cheaper than equity financing.

This article selects the asset-liability ratio of listed companies in the communications service industry from 2016 to 2019 to calculate the average asset-liability ratio increase rate. If it is an increase, it means that the company is in a state of cash shortage and needs to raise funds through debt financing; if it is a decrease, it means that the company is currently in a state of cash surplus, and the debt-to-asset ratio can be reduced by repaying debt. The test results of the capital status and the increase rate of the average asset-liability ratio are shown in Table VI.

## TABLE VI. UNDING STATUS CORRELATION TEST

|  |  | Funding status | Average asset-liability ratio increase rate |
|---|---|---|---|
| **Funding status** | Pearson correlation coefficient | 1 | 0.436 |

| | | | |
|---|---|---|---|
| | Significance level | | 0.029 |
| **Average asset-liability ratio increase rate** | Pearson correlation coefficient | 0.436 | 1 |
| | Significance level | 0.029 | |

It can be seen from Table VI that the Pearson correlation coefficient is 0.436, and there is also no good linear relationship, but the sig value of 0.029 is less than 0.05, which is a significant correlation, that is, there is a positive correlation between the state of funds and the increase rate of the average asset-liability ratio . It shows that when the communication service industry uses the financial strategy matrix, it is reasonable to classify the dimensions of cash surplus and deficiency.

## VII. CORRELATION TEST

The article selects the financial data of 25 listed companies in the communications service industry in China from 2016 to 2019, uses a financial strategy matrix to determine the quadrant of each listed company, and conducts static and dynamic analysis and company concept word frequency analysis. Based on the above research, the article draws the following conclusions:

First, listed companies in the communications service industry are generally short of value-added cash. From the perspective of value creation, at least 64% of listed companies from 2016 to 2019 are value-added, indicating that most companies can create new value for investors. With the continuous development of 5G and industrial Internet technologies, many investors are also very optimistic about the future development prospects of the communications service industry. From the perspective of cash surplus and deficiency, the sales growth rate of listed companies in the communication service industry and their capital status interact with each other. The average capital status of the industry from 2016 to 2019 shows a cash shortage type, which shows that listed companies in the communications service industry cannot meet the fast-growing cash demand for sales.

Second, in view of the declining average value creation value of the communication service industry from 2016 to 2019, this article analyzes the company's conceptual word frequency association diagram and concludes that listed companies in the communication service industry focus on integrating information and communication technologies with new applications and new models. It is in a period of national strategic development and deepening reform of the industry. Therefore, the year-on-year decline in value creation is not caused by the overall decline of the industry. In general, the future development prospects will still be broad.

Third, based on the analysis of the financial strategy matrix of listed companies in the communication service industry, combined with the characteristics of the communication service industry and future development space, propose financial strategy optimization suggestions for listed companies in four different quadrants, aiming to achieve long-term stable development of the company and promote the deepening of reforms in the communications service industry.

Fourth, this article uses SPSS 24.0 software to test the relevance of listed companies in the

communications service industry. The study found that there is a negative correlation between its value status and the price-to-sales ratio, and a positive correlation between the funding status and the increase rate of the average asset-liability ratio. It shows that the financial strategy matrix is feasible for listed companies in the communication service industry, and it further verifies the rationality of its two-dimensional classification in the application of the communication service industry.

## ACKNOWLEDGEMENTS

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