

Profit Quality Analysis on the Listed Company

A Case Study from CATL

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Abstract

Contemporary Amperex Technology Co.Limited (CATL) has emerged as a standout player in the fierce global and domestic competition and has gradually developed into the largest domestic battery power battery vehicle, becoming a benchmark company in China's new energy industry. In the stock market, investors pay attention to profit indicators to judge the operating development of a company, but there are also listed companies that adjust their profit totals to whitewashing their financial data. Profit quality, as a true reflection of a company's profitability, has gradually become an important indicator for investors to judge the authenticity of a company's financial statements. This paper conducts a case study on CATL, introduces the development of CATL and its industry, and selects the financial data of CATL from 2018 to 2023 to conduct a comprehensive analysis of its profit quality. The current study provides decision-making references for the company's shareholders, managers, and other relevant parties. In addition, the findings of this paper serve as an inspiration and reference for other companies in the same industry.

Keywords: Profit Quality; Core Profit; Profitability; Growth; Cash Receipts; Stability

1. Introduction

The development of listed companies plays a crucial role in China's national economy. Analyzing the profit quality of listed companies can reveal the advantages and disadvantages of their operations, thereby providing reliable financial information for improving profit quality, optimizing economic decisions, and promoting the high-quality development of listed companies. Companies are economic organizations born to make profits, and profitability is the fundamental ability that determines their survival and development. Investors usually evaluate the profitability of companies based on their profits, but the reported numbers may not necessarily match the



company's actual profitability. Only the profits that can be converted into cash flow are the company's real earnings. Profit quality refers to the reliability of the information expressed by accounting earnings about the economic value created by the company, and it is the embodiment of the intrinsic value of profits (Bai, 2021). To judge the profit quality of a company, it is not enough to rely solely on profit levels. Investors should also pay attention to the sources of profits, the structure of profits, and the relevance of profits to the company's business activities. By analyzing the profit composition angle, investors can determine the matching degree between accounting profits and real profits, the availability of cash, and the company's financial condition. In real business operations, there are cases in which companies have high profits but weak profitability, mainly due to the high manipulability of company profits, with some companies trying to create the illusion of high profits by adjusting their financial data. Therefore, studying the profit quality of companies is beneficial for investors to focus on the profit quality dimension when making investment decisions.

Contemporary Amperex Technology Co.Limited (CATL) has sprung up in the fierce international and domestic competition, and has gradually developed into the largest domestic power battery enterprise, becoming a benchmark company in China's new energy industry. Therefore, this paper selects CATL as a case enterprise, uses the method of factor analysis to calculate financial indicators such as core profit margin from the perspectives of profitability, cash flow, stability and growth, analyzes the profit quality, and objectively and comprehensively evaluates the profit quality of CATL. Then, the paper investigates the key points to improve the profit quality for CATL and puts forward measures to effectively promote the profit quality so as to provide support for improving the profit quality of enterprises in the same industry and realizing sustainable development.

2. Overview of CATL Enterprises

2.1. Industry Background

To meet the challenge of global climate change, green, low-carbon and sustainable development have become a global consensus. Global carbon emissions are mainly from the fields of power and transportation. The effective way to reduce carbon emissions in the power industry is to increase the proportion of green and clean energy power generation, such as wind power and photovoltaic power. The main way to reduce carbon emissions in the transportation industry is to improve the electrification rate of travel tools and use green energy. Electrochemical energy storage devices are one of the essential carriers of green and clean energy. It is widely used in the storage, conversion, and use of green and clean energy in the context of carbon emission reduction, and this measure has become an important strategy.

(1) Power Battery Industry

Benefiting from factors such as the improvement of comprehensive advantages of new energy vehicles in terms of mileage and convenient energy replenishment, as well as the expansion of terminal channels and the improvement of infrastructure facilities, the global market demand for new energy vehicles continues to grow rapidly, driving the rapid increase in the scale of the



power battery industry. In the domestic market, the popularity of new energy vehicles has gradually expanded from the first and second-tier cities with high acceptance to the third and fourth-tier cities, and the recognition of new energy vehicles has generally increased, driving the continuous and rapid growth of the demand for new energy vehicles. In the global market, the subsidy policies for new energy vehicles in most European countries have been continuously implemented, and the time target for the prohibition of fuel vehicles has been further clarified. The United States has also issued several policies to support the development of the new energy industry, and the penetration rate of new energy vehicles in Europe and the United States has also continued to increase rapidly.

(2) Energy Storage Industry

In recent years, under the guidance of national carbon emission reduction targets, the installed capacity of green energy power generation represented by photovoltaic and wind power has been growing rapidly. As a necessary means to solve the intermittency and volatility of wind and solar power generation and enhance the security and flexibility of power systems, the energy storage system has great potential for market development, with its security and economy continuously improving. In the domestic market, various provinces continue to implement the wind and solar energy distribution and storage policy and gradually clarify the compensation mechanism for energy storage costs to improve the income of energy storage power stations through sharing leasing, capacity compensation, and participating in power market transactions; In Europe, based on the positive carbon neutral goal, the proportion of photovoltaic and wind power generation continues to increase, and the demand for pre balance sheet energy storage market is skyrocketing. Affected by the sharp rise in electricity prices since last year, the economy of household photovoltaic energy distribution and storage is highlighted, which promotes the rapid growth of household energy storage market demand. Many states in the United States have set energy storage installation targets, increased the intensity of photovoltaic investment and storage tax credit (ITC), extended the policy period by 10 years to 2032, and included independent energy storage in the scope of ITC subsidies for the first time, promoting the rapid increase of pre balance sheet energy storage installation.

(3) Battery Materials and Recycling

With the rapid growth of the demand for power and energy storage batteries, the scale of battery material industries such as positive pole, negative pole and electrolyte has expanded rapidly. Battery recycling is one of the sources of battery materials. With the continuous growth of new energy vehicles, the continuous progress of battery disassembly and recycling technology, and the gradual expansion of channels, the decommissioning and recycling of power batteries will become an important source of battery materials. The "14th five-year plan" for the development of the circular economy clearly stipulates that China will vigorously develop the circular economy.

2.2. Overview of CATL Enterprises

CATL's full name is Contemporary Amperex Technology Co.Limited, which was founded in 2011. In 2018, it was successfully listed on the Shenzhen Stock Exchange. In 2020, it established a joint venture with the State Grid integrated power supply company and set up the 21C



Technology Research Institute. The company's power battery devices have been the lead in the country for six consecutive years, and the national share of the total amount of energy storage power batteries has also remained the first.

The main business of CATL New Energy Technology Co., Ltd. is the R&D, production, sales and after-sales service of power batteries, energy storage batteries and battery recycling products. main products include power battery system, energy storage system and lithium battery Its materials. Besides, the company attaches great importance to the research and development of products and technologies, and has established a perfect research and development system covering product research and development, engineering design, test and verification, process manufacturing and other fields. The company has established the National Engineering Research Center for electrochemical energy storage technology, the Key Laboratory for lithium-ion battery enterprises in Fujian Province, the test and Verification Center certified by the China National Accreditation Service for conformity assessment (CNAs), and has set up "Fujian academician expert workstation" and "post-doctoral research workstation", with outstanding advantages in research and development and technology. CATL is the world's leading supplier of power battery systems, focusing on the R&D, production, and sales of power battery systems and energy storage systems for new energy vehicles. CATL is committed to providing first-class solutions for new energy applications globally. The company has core technology advantages and sustainable R&D capabilities in key areas of the industrial chain, such as battery materials, battery systems, and battery recycling. It has formed a comprehensive and perfect production service system.

3. Profit Quality Analysis

3.1. Profitability Index Analysis

Profitability refers to the ability of enterprises to obtain profits. Profitability index evaluation can reflect the use of enterprise resources well. If resources are fully utilized, it shows that the profitability of enterprises is high and the profit quality of enterprises is good. On the contrary, when resource utilization is low, the profitability is weak, and the quality of profits is poor, indicating that the competitiveness of enterprises is not strong.

(1) Return on Total Assets

Considering the large scale of enterprise assets in CATL, this paper uses the method of most studies for reference. It selects the Return on Total Assets (ROTA) as an indicator to measure the utilization efficiency of enterprise assets. The Return on Total Assets is closely related to the company's competitive strength and development ability. The larger the index, the higher the utilization efficiency of assets, the stronger the competitiveness and development ability of enterprises, and the better the profit quality of enterprises (Fan, 2024).



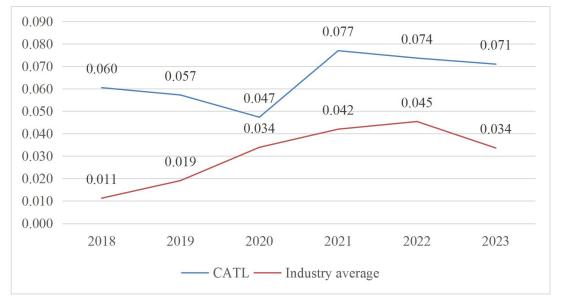


Figure 1. Changes in Return on Total Assets

The figure shows that CATL's Return on Total Assets in the past six years was higher than the industry average. Except for the impact of the epidemic in 2020, the Return on Total Assets of CATL fell to 4.73%, and the overall situation remained rising at other times. From 2021 to 2023, the changing trend of Return on Total Assets of CATL was consistent with that of the industry, showing a trend of first rising and then falling, reaching a maximum of 7.69% in 2021.

(2) Cost-Volume-Profit Ratio

One of the common indicators of enterprise profitability is the Cost-Volume-Profit Ratio (CVP), which indicates the revenue an enterprise can get for every dollar of cost and expense invested. This indicator reflects the revenue results achieved by the enterprise because of operational consumption. A larger value of this indicator indicates that a business is compensated by a more significant inflow of revenue for each unit of costs and expenses it spends. Therefore, the higher the Cost-Volume-Profit Ratio, the greater the enterprise's profitability and the higher the quality of profits (Luo, 2022).

According to the chart, CATL's Cost-Volume-Profit Ratio is gradually increasing in 2019–2021, and the indicator value is consistently below 20%. In 2018-2021, the company's Cost-Volume-Profit Ratio compared favorably with the industry average and was close to the industry average in 2022. In recent years, CATL's selling and administrative expenses have increased by almost ten times annually as the company's scale grows. However, selling and administrative expenses account for a small proportion of operating income, indicating that the business can control costs and expenses. CATL has also established a steady supply-and-demand connection with downstream automakers like Tesla. Therefore, by increasing the efficiency of its sales and management expenses, CATL can continue to strengthen its capacity to control costs and expenses, boost profitability, raise profitability levels, and eventually improve the quality of its earnings.



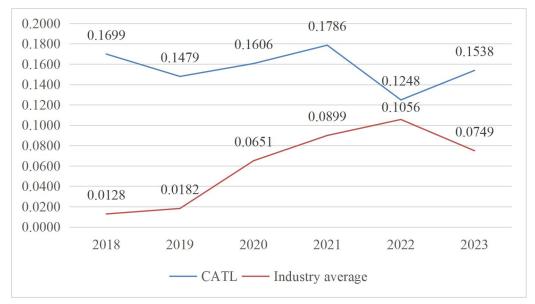


Figure 2. Changes in Cost-Volume-Profit Ratio

(3) Return on Equity (ROE)

Return on Equity, also known as Return on Shareholders' Equity, is the core of the DuPont Analysis. It is a comprehensive financial indicator that measures the profitability of a company's equity. The higher the ROE, the higher the utilization efficiency of the company's equity, and the better the return level for shareholders. Therefore, the guarantee of profit quality will also be higher. From 2018 to 2019, after-tax profits decreased due to the continuous rise in raw material prices and the decline in policy subsidies. Meanwhile, the increase in net assets was more significant than the increase in after-tax profits, causing CATL's ROE to decline but remain above the industry average. In 2020, the ROE began to rise. During that time, CATL's sales grew significantly, and net profits increased substantially, indicating that the utilization efficiency of CATL's equity reached its peak in 2020.

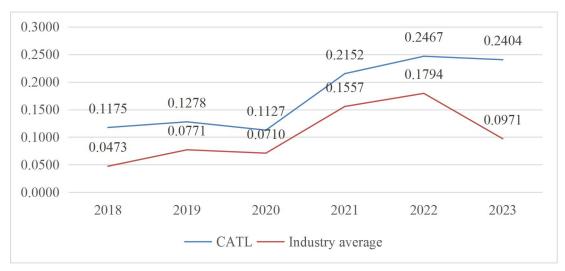


Figure 3. Changes in Return on Equity



(4) Core Profit Margin

According to the new accounting standards, profits and losses that are similar to asset disposal gains, other gains, and those that are not closely related to the company's core business are also included in operating profit, so they cannot reliably reflect the company's contribution to its core business. Therefore, this paper uses the core profit margin indicator to replace the operating profit contribution rate indicator. Core profit is the amount generated by deducting operating costs, selling expenses, management expenses, financial expenses, R&D expenses, taxes, and additional charges from revenue. It can better measure the stability of the company's profit structure (Wang & Qu, 2022). The core profit margin indicator can reflect the company's ability to generate revenue through its operating activities. It is one of the key indicators for evaluating the company's business results. The larger the indicator, the better the profit quality. The core profit margin is calculated by dividing core profit by revenue. Among them, core profit reflects the revenue generated by the company's sales activities and the financial, sales, management, and product-related costs generated by the sales activities. It excludes income that is not generated from operating production activities. The company generates profits from its core business, so the core profit margin can better reflect the stability of the company's profits. This indicator is a positive indicator.

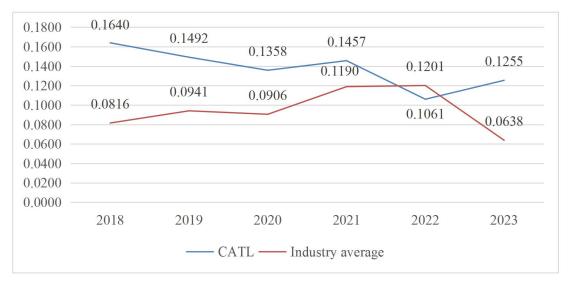


Figure 4. Changes in Core Profit Margin

As shown in the figure, the core profit margin of CATL in the past five years has been higher than the industry average, with an increase in 2021 and 2023, and the core profit margin has remained above 10% for the past six years, consistently above the industry average. Although the industry average has been below 10% in the past six years, there is still a particular gap compared with the industry average. After analysis, it can be seen that CATL's ability to generate profits through its operating activities is gradually increasing, but there is still room for further development.



3.2. Stability index analysis

When an enterprise faces risks from changes in the internal and external environment, its profit quality level may be adversely affected. However, for those enterprises in a low competitive environment or high market concentration, the profit quality can be effectively guaranteed because they have a more stable consumer base and profit source (Sulistiawan & Rudiawarni, 2019).

(1) Proportion of Accounts Receivable

To a certain extent, the proportion of accounts receivable can reflect an enterprise's turn over rate and cash flow risk level (Perotti & Wagenhofer, 2014). It shows that CATL co nstantly optimizes the asset structure, allocates assets reasonably, and reduces the depende nce on accounts receivable.

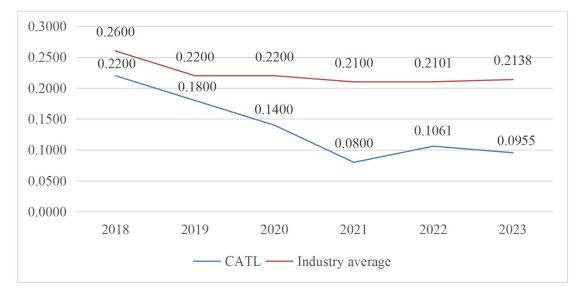


Figure 5. Changes in Proportion of Accounts Receivable

(2) Proportion of Operating Profit

The proportion of operating profit refers to the proportion of the enterprise's operating profit in the total profit, which is one of the critical indicators of the enterprise's operating ability. The proportion of operating profit is a positive indicator. When the proportion of operating profit is relatively high, it indicates that the profit of the enterprise has better stability and higher income quality. Therefore, enterprises should enhance the profitability of the main business to improve the profit quality (Shin et al., 2018).



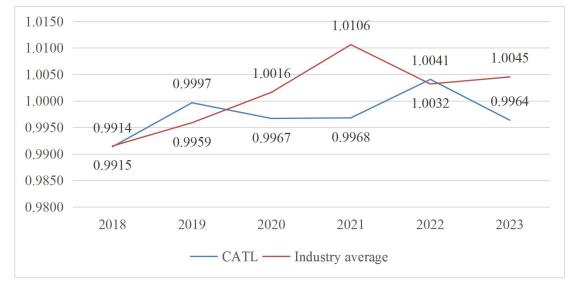


Figure 6. Changes in Proportion of Operating Profit

As shown in the figure, from 2022 to 2023, the proportion of operating profit in the CATL is lower than the industry average. Although the proportion of operating profit in CATL began to increase after the impact of the epidemic in 2020, there was still a certain distance from the industry average, and the proportion of operating profit in the CATL showed a downward trend in 2023. Therefore, CATL needs to strengthen cost management and sales management to improve the stability of profits.

3.3. Analysis of cash index

The proportion of operating profit refers to the proportion of the enterprise's operating profit in the total profit, which is one of the essential indicators of the enterprise's operating ability. The proportion of operating profit is a positive indicator. That is, when the proportion of operating profit is relatively high, it indicates that the profit of the profitability refers to the ability to convert corporate profits into cash flow. The sales revenue ratio is a positive indicator. Through studying the cash flow statement, the information in the statement truly and reliably reflects the company's operating conditions, so it can help judge the company's earnings quality (Andekina & Rakhmetova, 2013). The cash flow of enterprises will promote the quality of their profits, and the level of profit quality of enterprises will increase with the increase in cash flow (Artikis & Papanastasopoulos, 2016). Therefore, accurate and adequate cash flow information can help investors and shareholders better understand the profit quality of enterprises (Dichev et al., 2013).

(1) Sales Revenue Rate

The rate of revenue from sales reflects the proportion of income generated by the sale of goods and services that are recovered in cash. When the sales cash rate is closer to 1, it indicates that the cash flow received from operating activities maintains a reasonable and proportional relationship with the scale of operating income, and it also suggests that the company's profit has a higher cash availability.



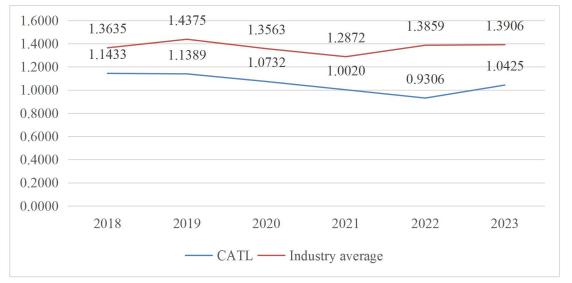


Figure 7. Changes in Sales Revenue Rate

As depicted in the figure, the sales cash collection rate of CATL from 2018 to 2023 maintained a roughly similar trend to the industry average. It increased after consecutive years of decline and fluctuated around 1, suggesting that the cash flow received from CATL's operating activities maintained a reasonable, proportional relationship with the scale of its operating income. The firm had a relatively strong cash realization ability, and its profits had a relatively high profitability.

(2) Total Asset Cash Collection Rate

The total asset cash collection rate reflects an ability to generate cash from all a company's assets. Specifically, it is the operating cash net flow ratio to total assets. This indicator will evaluate a company's ability to generate cash from all its assets. The larger the indicator value, the better the company can generate cash flow from its assets. By calculating the reciprocal of the indicator, we can analyze the period required for the total assets to be recovered through operating activities. The shorter the period, the stronger the asset's ability to generate cash. The larger the ratio, the better the asset utilization effect, the more cash inflows generated by the asset, and the stronger the company's ability to generate cash. Conversely, the company needs to improve its management level and economic efficiency.

The chart shows that CATL's total cash collection rate has fluctuated since 2018. It increased between 2020 and 2021 and 2022 afterward, all higher than the industry average, indicating that CATL's profits have strong liquidity.

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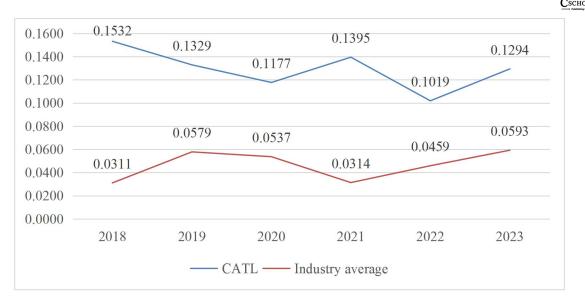


Figure 8. Changes in Total Asset Cash Collection Rate

3.4. Growth Indicators

Profitability's growth ability and profit quality level are closely interrelated and mutually influencing. Together, they provide practical information for enterprise investors (Aboody et al., 2005).

(1) The Growth Rate of Gross Profit Margin

The growth rate of gross profit margin refers to the increase in the gross profit margin of an enterprise in the current period compared to that in the previous period. By identifying the superior or inferior business segments based on the magnitude of this value, the implementation of strategies can be effectively analyzed. Therefore, when analyzing the profitability of an enterprise, the gross profit margin indicator should be utilized, which can effectively evaluate the future development potential of the enterprise (Zhang, 2023). If the growth rate of the gross profit margin is positive, it indicates an improvement in the enterprise's profitability.

The figure shows that the growth rate of NATL's gross profit margin was negative before 2023. It was lower than the industry average in 2018, 2019, and 2022, mainly because the new energy market was booming in 2022, and lithium was in short supply, with a significant price increase, causing the cost of the company's products to rise. At the same time, the price of power batteries decreased, and the company gradually invested in upstream lithium battery enterprises through strategic cooperation and self-production to ensure the supply of upstream materials. Managers need to formulate more reasonable business strategies to improve the company's profitability. With the expansion of upstream capacity, NATL's gross profit margin began to grow significantly in 2023.

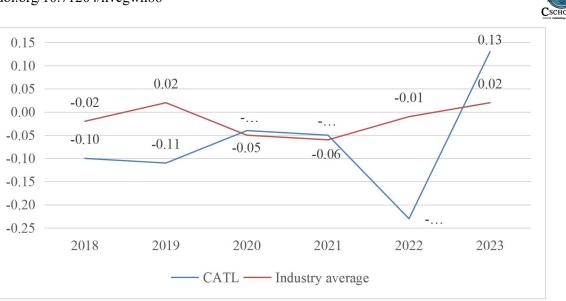


Figure 9. Changes in the Growth Rate of Gross Profit Margin

(2) The Growth Rate of Operating Revenue

Revenue structure plays a significant role in an enterprise's profit quality. The enterprise's operating revenue fluctuations are manifested more directly in its profit quality level (Bonacchi et al., 2019). The growth rate of operating revenue is not only a crucial indicator for gauging an enterprise's growth status and development potential but also for assessing its market possession ability and product competitiveness. The larger this indicator is, the more consumers favor the enterprise's products and the better the enterprise's development prospects. Therefore, the greater the growth rate of operating revenue, the better the profit growth potential of the enterprise.

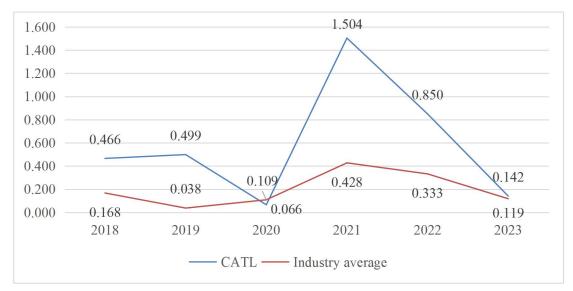


Figure 10. Changes in the Growth Rate of Operating Revenue

It can be observed from the graph that the revenue growth rate of CATL has fluctuated significantly in recent years, maintaining a trend of initially decreasing, then increasing, and subsequently decreasing. Specifically, it reached a maximum of 150.35% in 2021. In 2020, CATL



was adversely affected by the epidemic and exhibited a negative growth trend. Nevertheless, compared with the revenue growth rates of enterprises in the same industry, CATL benefits from its scale effect and relatively high profitability. Although CATL's revenue growth rate is not satisfactory and the growth rate is unstable, it can sustain positive growth. With the continuous increase of electric vehicles in the future, CATL enjoys a favorable market prospect.

4. Factor Analysis

4.1. Sample Selection

The samples in this analysis are selected from 45 companies in the power equipment industry listed on the Shanghai and Shenzhen stock markets. The information disclosure of these listed companies is standardized, and their financial information is complete, which is of reference significance for the current situation of the power equipment industry.

4.2. Construction of Profit Quality Evaluation System

The profit quality of a company is a comprehensive manifestation of its financial operation quality. Studies on corporate finance have found that financial indicators are relatively objective indicators for evaluating a company's financial status and business performance and can reflect the company's operation from different aspects. Therefore, economic data and indicators are selected to analyze the profit quality of listed companies in the power equipment industry. This paper selects ten representative secondary indicators from four aspects: profitability, stability, cash collection, and growth, namely gross profit growth rate X1, accounts receivable proportion X2, core profit margin X3, return on total assets X4, return on net assets X5, cost and expense profit margin X6, proportion of operating profit X7, revenue growth rate X8, sales cash collection rate X9, and total cash recovery rate X10, to construct a profit quality evaluation system.

4.3. Factor Analysis

Factor analysis is adopted to analyze the profit quality of companies in the power equipment industry listed on the A-share market. The principle is to group the original variables based on their correlations, obtaining a few factors that integrate the majority of the original variables and reducing the dimensions to decrease the number of original variables.

4.3.1. Data Verification

The data was imported into SPSS 23.0 for the KMO-Bartlett's sphericity test. The KMO statistic was 0.682, greater than 0.5; Bartlett's sphericity test statistic was 368.676, and the P-value was close to 0. This passed the significance test, indicating a strong correlation among the 10 variables, and it is suitable for factor analysis.

4.3.2. Determination of Common Factors

The extracted common factors follow the principle that the cumulative contribution rate exceeds 80%. The cumulative variance contribution was 84.257%, greater than 80%, indicating that the four extracted principal factors can represent the original variables.



4.3.3. Factor Loading Matrix

Factor rotation is conducted to name and explain the factors. The larger the absolute value of the factor loading in the rotation matrix, the closer the relationship between this common factor and a particular variable and the more potent its ability to explain the information contained in the variable.

| | Component | | | |
|---|-----------|--------|--------|--------|
| | 1 | 2 | 3 | 4 |
| Zscore (The Growth Rate of Gross Profit Margin) | 0.297 | 0.209 | 0.790 | -0.056 |
| Zscore (Proportion of Accounts Receivable) | -0.038 | -0.237 | -0.003 | 0.828 |
| Zscore (Core Profit Margin) | 0.806 | 0.424 | 0.149 | 0.005 |
| Zscore (Return on total assets) | 0.899 | 0.289 | 0.161 | -0.098 |
| Zscore (Return on equity (ROE)) | 0.886 | 0.093 | 0.193 | -0.011 |
| Zscore (Cost-Volume-Profit Ratio) | 0.865 | 0.376 | 0.054 | -0.071 |
| Zscore (Proportion of Operating Profit) | 0048 | .0157 | -0.076 | 0.855 |
| Zscore (The Growth Rate of Operating Revenue) | 0.062 | -0.123 | 0.903 | -0.034 |
| Zscore (Sales Revenue Rate) | 0.385 | 0.890 | 0.025 | -0.014 |
| Zscore (Total Asset Cash Collection Rate) | 0.350 | 0.867 | 0.014 | -0.063 |

Table 1. Rotated component matrix

4.3.4. Factor Naming

From Table 2, the loadings of each variable on the relevant factors are obtained, and they are named based on the comprehensive data characteristics. The common factor F1 has relatively large loading coefficients on the core profit rate, return on total assets, return on net assets, profit rate of cost, and expense. This factor reflects the enterprise's profit-generating ability and is thus named the Profit Quality Factor. The common factor F2 has relatively large loading coefficients on the sales cash collection rate and the total cash recovery rate. This factor reflects the cash collection situation of the company and is therefore named the Profit Cash Collection Factor. The common factor F3 has relatively large loading coefficients on the growth rate of gross profit and operating income growth rate. This factor reflects the growth potential of the company's profits and is accordingly named the Growth Factor. The common factor F4 has relatively large loading coefficients the company's stability and is named the Stability Factor.



| Table 2. Top | 20 in compre | ehensive ranking | and factor ranking |
|--------------|--------------|------------------|--------------------|
| | | | |

| Stock abbreviation | Comprehensive Score | Fac_1 | Fac_2 | Fac_3 | Fac_4 |
|--------------------------|---------------------|-------|-------|-------|-------|
| Dexin Technology | 1 | 13 | 1 | 29 | 6 |
| Anfu Technology | 2 | 2 | 22 | 9 | 21 |
| Derui lithium Battery | 3 | 17 | 4 | 8 | 16 |
| GP Energy | 4 | 37 | 10 | 26 | 1 |
| Hangke Technology | 5 | 1 | 38 | 12 | 14 |
| CATL | 6 | 12 | 13 | 7 | 17 |
| Zhejiang HENGWEI | 7 | 8 | 12 | 21 | 23 |
| Starsource Material | 8 | 15 | 8 | 22 | 7 |
| Yinghe Technology | 9 | 16 | 16 | 1 | 10 |
| Tianhua Xinneng | 10 | 3 | 3 | 45 | 33 |
| NeoState | 11 | 22 | 2 | 32 | 13 |
| Tiannai Technology | 12 | 6 | 21 | 35 | 27 |
| Kodali | 13 | 9 | 36 | 10 | 22 |
| Yiwei lithium Energy | 14 | 25 | 15 | 3 | 18 |
| Xiangtan Electrochemical | 15 | 10 | 20 | 25 | 31 |
| Dangsheng Technology | 16 | 4 | 31 | 33 | 35 |
| Mustang Battery | 17 | 18 | 23 | 16 | 29 |
| Lijia Technology | 18 | 20 | 17 | 19 | 25 |
| Godsend Material | 19 | 5 | 26 | 40 | 32 |

4.3.5. Factor Scores and Rankings

The factors are expressed as linear combinations of variables based on the factor score coefficient matrix, and the score functions of each factor are obtained. The variance contribution rate of each common factor is used as the weight to weigh each common factor and construct the comprehensive score evaluation model of profit quality: Comprehensive score = $(FAC_1 * 33.559 + FAC 2 * 20.966 + FAC 3*15.330 + FAC 4 * 14.402 +) / 84.257$. It can represent the



comprehensive score of the financial indicators reflecting the profit quality of each company, and the ranking is carried out to reflect the differences in the profit quality of each enterprise.

5. Suggestions for Improving Profit Quality

5.1. Financial Advice

Rapidly growing revenue may not lead to the synchronous growth of profitability, so companies are suggested to conduct the following strategies: strengthen the management system of enterprise supply, production, and marketing, and monitor costs; strictly control the cost management system, a bottom-up and top-down return system, strictly follow the implementation of the planned project, reduce the expenses during the period, and improve the income efficiency(Zhang, 2023).

Another practical suggestion is to actively adjust the production and operation mode, reduce inventory and total inventory, and enhance the liquidity of assets. CATL's annual decline in gross profit margin and other indicators is related to expanding capacity and inventory backlog. Managers are advised to strengthen inventory control, reasonably optimize inventory composition, and improve supply chain control processes and mechanisms.

To strengthen the development of the central business of listed companies, first of all, the company should carefully determine its strategic positioning. When the company grasps the market from the height of strategy, its market field is broadened to clarify the company's main business better, avoid outdated business, and develop its innovation research at the same time. Second, the company should avoid blindly implementing diversification. Diversification may easily lead to the dispersion of company resources, which makes the company unable to concentrate its advantages to carry out its main business and even hinders the development of its primary business. Finally, the company should track and investigate the implementation process of its primary business, find and solve problems anytime and anywhere, nip these problems in the cradle, and end all matters that hinder its main business so that its main business can be carried out smoothly.

5.2. Strategic Recommendations

Firstly, expand follow-up service areas. Due to the unbalanced development of the five major fields, the proportion of investment in the power battery field is increasing, and it is easy to face the huge impact of industrial development fluctuations. The downstream users are relatively concentrated. CATL can expand the follow-up service areas with good performance and good market prospects in accordance with the business growth goals and market support so as to prevent business difficulties.

Secondly, expand overseas business. At present, CATL is limited to domestic industries. Although foreign projects have developed, they are small in scale. Therefore, CATL can take advantage of the development advantages of domestic industries, actively expand cooperation with foreign excellent new energy enterprises, realize the expansion of foreign projects, and expand overseas business.



By improving the internal governance level of enterprises, the ability of enterprises to cope with external risks can be improved, which is conducive to the stability of profit quality (Melgarejo, 2019). Establish a scientific organizational structure, improve management efficiency, improve the internal organizational system, and carry out a scientific and efficient management system. Establish an employee incentive system, improve the enthusiasm of employees, regularly organize learning, and improve the knowledge level of employees. The reform of the upper-level system of enterprises will also impact the composition of enterprise profits (Purwaningsih et al., 2020). Enhance the strategic vision of the management and carry out scientific management. At the same time, the managers can shape the corporate culture and improve the cohesion of employees. In addition, the development strategy that aligns with the enterprise's nature shall be formulated according to the business scale.

Author Contributions:

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