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Analysis of the Solvency of Listed Companies: A Case Study of Gree Electric Appliances

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Abstract: This paper takes Zhuhai Gree Electric Appliances as the research object. Based on its recent financial data, it analyzes the company's solvency from the aspects of short - term and long - term solvency. In response to the existing solvency pressure, corresponding suggestions are put forward. The research results are helpful for Gree Electric Appliances and its relevant stakeholders to make better decisions.

1. Introduction

To determine whether a company's financial situation is reasonable and healthy, it needs to be examined and analyzed from multiple dimensions. Among numerous complex indicators, the solvency of an enterprise is undoubtedly a crucial inspection point. Solvency not only directly reflects the balance between a company's assets and liabilities but also serves as an important basis for evaluating its operational risks and predicting future development potential[1]. Therefore, the importance of solvency to a company is self - evident.

For an enterprise, reasonable solvency plays a vital role in its development and operation. It can effectively stabilize the company's cash flow in the face of various economic pressures and market challenges and deal with potential debt crises[2]. With the continuous changes in the global economic environment, the government, investors, and enterprise employees are paying more in - depth and comprehensive attention to the company's operational status[3]. In this context, the solvency of an enterprise has become an important aspect among many concerns. For investors and creditors, the strength of an enterprise's solvency is directly related to their vital interests, most directly reflected in whether they can obtain returns. Therefore, they usually take the company's solvency as an important reference when making decisions[2].

If an enterprise has a strong solvency, it is very beneficial for establishing its corporate image and can attract more investors and creditors[3]. Because an enterprise with strong solvency is more likely to gain the trust of investors and creditors compared to those with weak solvency, which provides favorable support for its own development. However, on the other hand, compared with foreign capital markets, the solvency of China's capital market is still relatively weak. Due to various internal and external factors and the imperfections of the market, different enterprises have different understandings of solvency. Some enterprises even still believe that they only need to focus on profitability and do not need to pay attention to solvency, which is detrimental to the development of the enterprise[4].

With the continuous development of China's capital market and the gradual improvement of relevant systems, enterprises are now paying more and more attention to solvency. More and more enterprises are beginning to focus on establishing a scientific debt management system and strengthening debt risk early - warning and prevention[5]. At the same time, the government and all sectors of society are actively promoting the standardization and transparency of the capital market, providing a strong guarantee for the healthy development of enterprises[6].

This paper takes Gree Electric Appliances, a leading enterprise in the home appliance industry, as an example to analyze the problems in its solvency and puts forward corresponding suggestions. It is hoped that through the research of this paper, it can bring some inspiration for the home appliance industry to make changes and thus promote the development of enterprises.

2. Analysis of Gree Electric Appliances' Solvency

2.1 Basic Situation of Gree Electric Appliances

Zhuhai Gree Electric Appliances Co., Ltd. (referred to as Gree Electric Appliances) was founded in 1991 and has a history of more than 30 years. In November 1996, Gree Electric Appliances was listed on the Shenzhen Stock Exchange, achieving the great feat of entering the capital market. Since then, the company's development prospects have become broader. At the beginning of its establishment, Gree Electric Appliances was committed to the assembly and production of household air conditioners. With its exquisite craftsmanship and excellent quality, it has been deeply loved by the majority of users. However, Gree Electric Appliances has never stopped moving forward. Now it has developed into a global manufacturing company with a variety of high - tech products.

Gree Electric Appliances operates in a wide range of fields, from daily consumer goods to high - end production and various industrial equipment. Relying on its strong scientific and technological strength and continuous scientific and technological innovation, Gree Electric Appliances has created a series of high - quality products with international competitiveness for customers. These products not only occupy a large market share in the domestic market but also are sold to more than 190 countries, winning unanimous praise from domestic and foreign customers.

Gree Electric Appliances is a leading enterprise in the domestic home appliance industry, and its production and operation will inevitably attract widespread attention from all sectors of society. The solvency of an enterprise is a major indicator reflecting the company's operating conditions. Since the outbreak of the COVID - 19 pandemic in 2020, the global economic situation has been severe, and many industries have been affected to a certain extent. As the largest home appliance company in China, Gree Electric Appliances must carefully analyze the financial crisis it faces during this pandemic and take corresponding measures. This not only provides an essential guarantee for the healthy development of the enterprise but also provides a strong impetus for the sustainable development of China's home appliance industry. Therefore, it is necessary to deeply study the financial situation of Gree Electric Appliances, explore the changing trends and influencing factors of its solvency, so as to provide useful references for the future development of Gree Electric Appliances and even the entire home appliance industry.

2.2 Solvency Analysis

2.2.1 Short - term Solvency Analysis

The current short-term solvency evaluation system of Gree Electric Appliances mainly includes three indicators: the current ratio, the quick ratio, and the cash ratio.

From Table 1 and Figures 1-3, it can be observed that, in terms of the current ratio, the values of Gree Electric Appliances have fluctuated over the past five years. Overall, they are lower than the industry standard value of 2, and the current ratio has been greater than 1 in the past five years. This indicates that its current assets can just cover its maturing debts. However, it can be clearly seen from the table that the current ratio of Gree Electric Appliances has been lower than the industry average of the entire home appliance industry in the past five years. This shows that the company's ability to repay current liabilities in the short - term is relatively weak compared to the entire industry. By observing the balance sheet of Gree Electric Appliances, it can be seen that its current liabilities are relatively high, indicating that the company needs to repay a large amount of debts in the short - term, which puts certain pressure on the company's capital liquidity. Low capital liquidity means that once faced with unexpected capital demands or cash flow fluctuations, the company may have difficulty quickly mobilizing funds to respond. Although the current assets can cover the current liabilities at present, if the current assets decrease or the current liabilities increase in the future, the company may face debt - paying pressure, and even a short - term debt - paying crisis. The company may also not have enough funds to expand production, invest in new projects, or carry out other forms of expansion, thus restricting the company's development space[7]. Especially in 2021, affected by the COVID - 19 pandemic, the company's current ratio decreased significantly, indicating that there are certain problems in the matching of current assets and current liabilities of Gree Electric Appliances. At the same time, this reflects that the company's short - term solvency has weakened. However, it is worth noting that with the gradual recovery of the market economy in 2022, the company's current ratio has rebounded, but it still has not reached the industry standard value. This shows that Gree Electric Appliances still needs to strengthen its asset utilization rate and optimize its liability structure.

Table 1 Short - term Solvency Ratios

Serial Number	2018	2019	2020	2021	2022
Current Ratio	1.27	1.26	1.35	1.15	1.18
Quick Ratio	1.02	0.96	1.05	0.8	0.95
Cash Ratio / %	72.35%	74.52%	86.31%	59.33%	74.57%

Data Source: Calculated, sorted, and filled in according to the financial statements of Zhuhai Gree Electric Appliances Co., Ltd. (2018 - 2022)

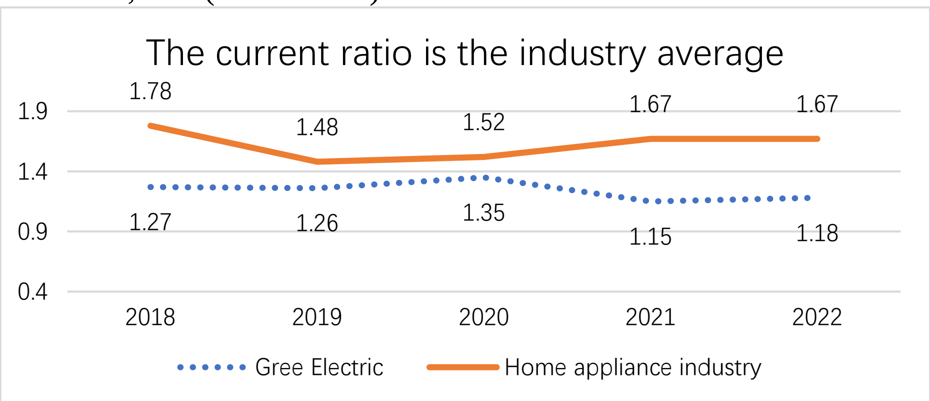

Figure 1 Current ratio

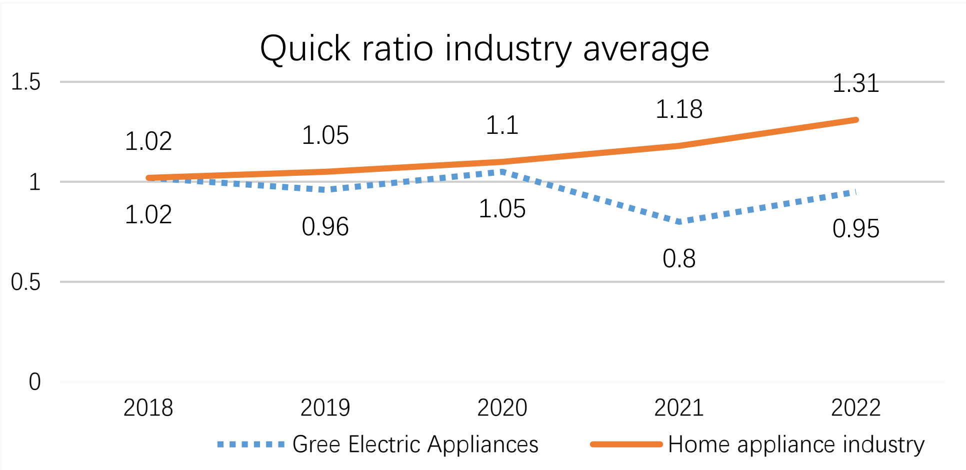

Figure 2 Quick ratio

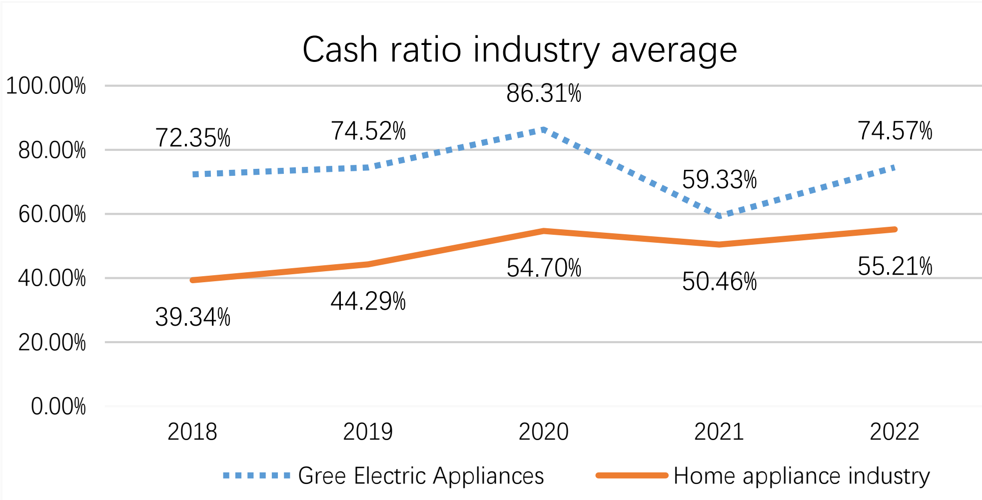

Figure 3 Cash ratio

The quick ratio is a supplementary indicator to the current ratio. It excludes inventory and other assets that are not easy to liquidate[8]. In the case where inventory may not be quickly liquidated, the quick ratio can better reflect the true situation of short - term solvency. The quick ratio of Gree Electric Appliances showed a trend of first rising, then falling, and then rebounding in the past five years. However, in 2021, affected by the COVID - 19 pandemic, the company's quick ratio decreased significantly and was lower than the industry standard value. This indicates that problems such as inventory backlogs and increased current liabilities became prominent during the pandemic. However, with the recovery of the market economy, the company's quick ratio rebounded to the industry average level in 2022, indicating the restoration of short - term solvency.

The cash ratio is a method to measure the relationship between a company's cash and cash equivalents and current liabilities. Since cash and cash equivalents are the most liquid assets in an enterprise, through the detailed analysis of the cash ratios of Gree Electric Appliances in the past five years, it can be found that the proportions of cash held by Gree Electric Appliances in each period are 72.35%, 74.52%, 86.31%, 59.33%, and 74.57% respectively. Compared with the industry average, it can be clearly seen that the cash ratio of Gree Electric Appliances is significantly higher than that of the industry. The cash ratio of Gree Electric Appliances far exceeds the average level of the ordinary home appliance industry. Although a high cash ratio indicates a strong short - term solvency of the company, it also reflects that Gree Electric Appliances is relatively conservative in the use of working capital. A large amount of cash reserves has not been effectively utilized, which to a certain extent restricts the company from carrying out more potential projects. This shows that Gree Electric Appliances may have missed the opportunity to invest and make profits. This improper use of funds not only increases the company's opportunity cost but also affects the overall profit. Therefore, although the cash ratio of Gree Electric Appliances shows good short - term solvency, the company also needs to consider how to use this working capital more effectively and find more investment opportunities to enhance the company's overall profit and market competitiveness.

2.2.2 Long - term Solvency Analysis

The short-term solvency assessment of Gree Electric Appliances mainly focuses on three core indicators: the current ratio, the quick ratio, and the cash ratio.From Table 2 and Figures 4-6, it can be observed that The asset - liability ratio of Gree Electric Appliances has shown a trend of first decreasing and then increasing in the past few years. By 2022, it had reached 71.30%. This figure not only exceeded the industry average of 45.75% but also surpassed the generally accepted safety threshold of 0.5. There is still a significant gap from the more appropriate 0.6 recognized globally. The high asset - liability ratio indicates, on the one hand, that the proportion of liabilities in its total assets is relatively large, and the enterprise has a heavy debt burden, reflecting the economic difficulties the company faces. On the other hand, it also exposes the blind factors in the company's expansion strategy, thereby increasing the company's financial risks and posing a severe test to the company's solvency.

Table 2 Long - term Solvency Ratios

Serial Number	2018	2019	2020	2021	2022
Asset - liability Ratio / %	63.12%	60.39%	58.15%	66.24%	71.30%
Equity Ratio	1.74	1.55	1.41	2.04	2.62
Interest Coverage Ratio	30.28	19.37	25.18	16.30	10.59

Data Source: Calculated, sorted, and filled in according to the financial statements of Zhuhai Gree Electric Appliances Co., Ltd. (2018 - 2022)

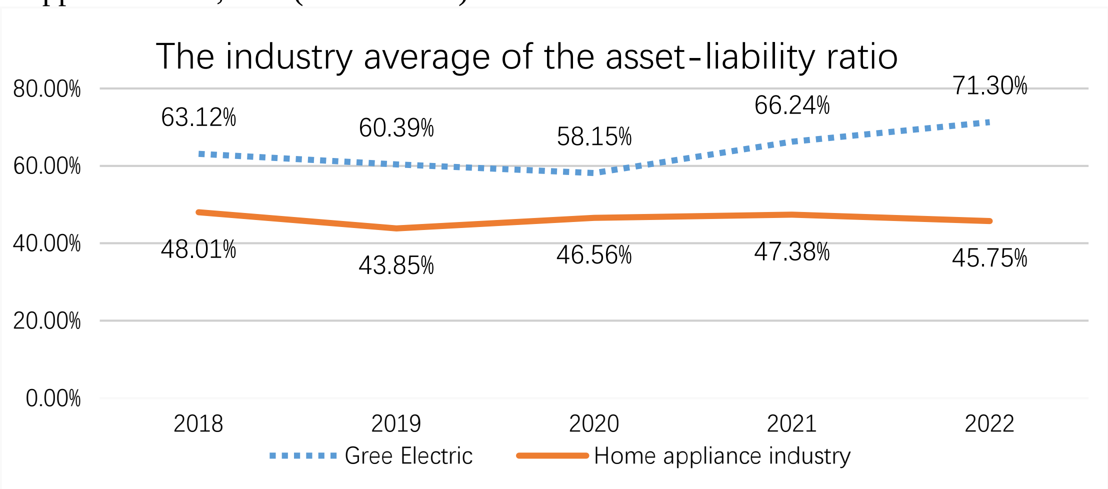

Figure 4 Debt-to-asset ratio

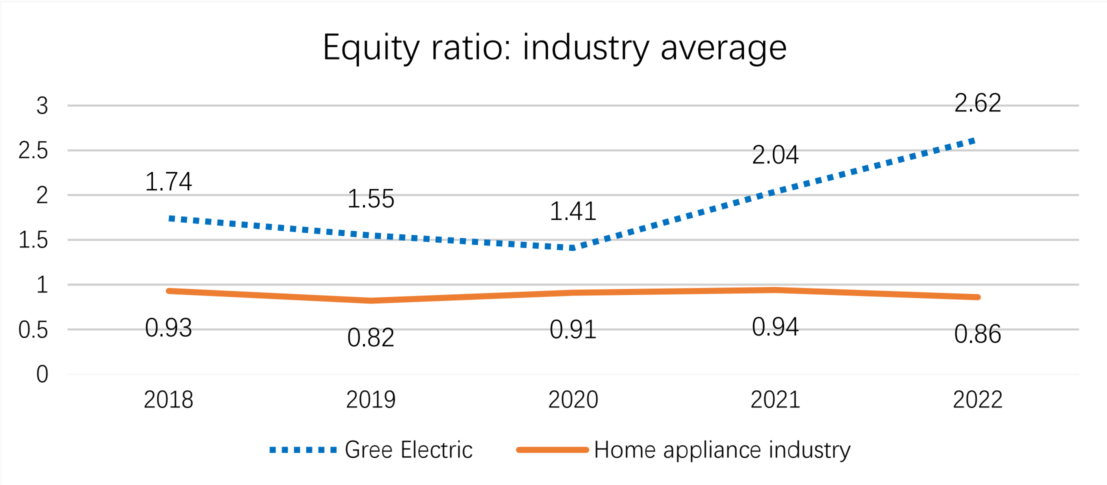

Figure 5 Equity ratio

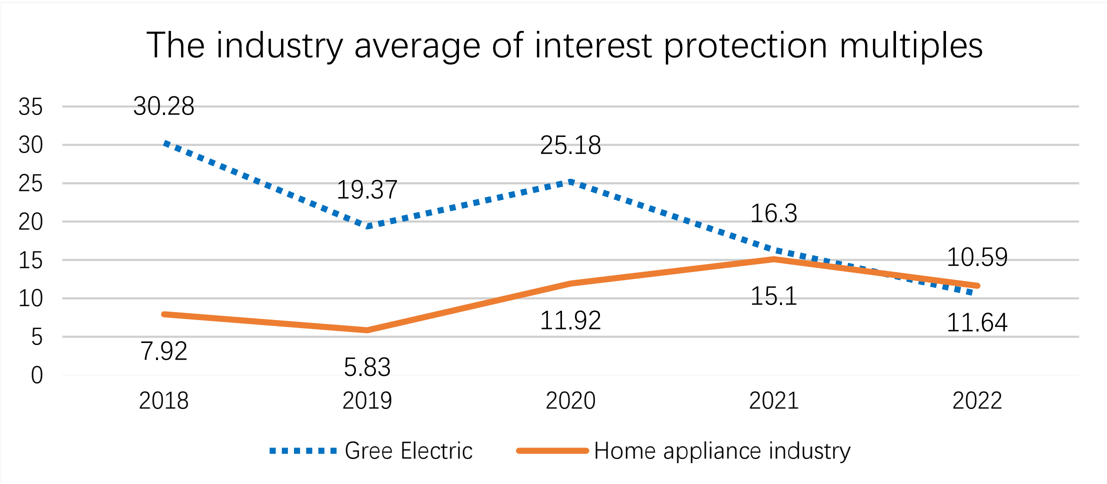

Figure 6 Interest protection ratio

The equity ratio, as another indicator for measuring an enterprise's solvency, implies that the smaller its value, the stronger the enterprise's solvency. However, in 2022, the equity ratio of Gree Electric Appliances was as high as 2.62, far higher than the normal level of around 1 generally considered and also much higher than the industry average of the home appliance industry. Such a high equity ratio indicates that the proportion of liabilities in the total assets of Gree Electric Appliances is excessive. Especially in 2022, with a value of 2.62, it shows that the debt to be repaid has increased. Compared with the industry, the solvency of Gree Electric Appliances has weakened year by year, which requires the high attention of the enterprise's management.

The interest coverage ratio is an important indicator for evaluating whether an enterprise has sufficient profits to pay interest. Compared with the industry average in the past five years, the interest coverage ratios of Gree Electric Appliances from 2018 to 2021 were all far higher than the industry average. The interest coverage ratios of Gree Electric Appliances in the past five years were 30.28, 19.37, 25.18, 16.30, and 10.59 respectively. In 2018, the industry average of the interest coverage ratio was 7.92, and Gree Electric Appliances' 30.28 in 2018 was much higher than that of the same year, indicating that the company had enough profits to pay interest. However, an excessively high interest coverage ratio also reveals some problems. It may imply that Gree Electric Appliances is too conservative in financial management, resulting in under - utilization of capital and an increase in the company's financial costs. At the same time, an excessively high interest coverage ratio may also lead to waste of funds and a reduction in the efficiency of fund use. For shareholders and creditors, an excessively high interest coverage ratio may mean that the enterprise's financial situation is too conservative to bring them higher returns, which may affect their confidence in the enterprise and investment willingness. However, from the line chart, it can be seen that in recent years, the interest coverage ratio has shown a trend of first decreasing, then increasing, and then decreasing again, with an overall downward trend and gradually approaching the industry average, indicating that Gree Electric Appliances is also consciously making improvements in terms of the interest coverage ratio.

In conclusion, Gree Electric Appliances faces certain risks and challenges in terms of solvency. Firstly, through the above - mentioned analysis, it can be seen that both the current ratio and the quick ratio have been lower than the industry average in the past five years, indicating that its short - term solvency is relatively weak compared with the entire industry. By analyzing the three major ratios of short - term solvency and comparing them with the industry average, it can be found that Gree Electric Appliances has high current liabilities and a large debt - repayment pressure. Secondly, the cash ratio of Gree Electric Appliances also shows a certain degree of conservatism. Although having high cash reserves can, to some extent, guarantee the company's short - term solvency, an excessively high cash ratio also means that these funds have not been fully utilized. In today's increasingly competitive market, how to rationally allocate and utilize cash resources and improve the efficiency of fund use is also a problem that Gree Electric Appliances needs to consider. In addition, the problem of inventory backlog in Gree Electric Appliances is relatively obvious. This not only occupies a large amount of working capital but also may lead to the risk of asset impairment. These problems reflect that there may be certain irrationalities in the operation, management, and strategic layout of Gree Electric Appliances. Its excessively high asset - liability ratio is significantly higher than the industry average, and the equity ratio has also shown an upward trend in recent years, indicating the current situation of a large proportion of liabilities in the company and weak long - term solvency.

3. Enhancement Strategies and Improvement Methods

3.1 Strategies for improving short-term solvency

(1) For current asset management: through the above analysis, the cash ratio of our Gree Electric is too high, and there are more idle funds, the company should pay attention to this problem and improve its asset utilization, first of all, we need to pay attention to the management of current assets. Through the comparative line chart of the industry average of the cash ratio, we can see that the cash ratio of Gree Electric Appliances far exceeds the industry standard value, which reflects that the excessively high cash reserves are not fully used for investment activities, so we should make full use of this part of the cash and use it in its investment activities, production and operation process, and the company should formulate a more refined and accurate procurement plan to ensure the timely supply of raw materials and not excessive overstock. For the problem of inventory backlog, it is recommended that the advanced inventory management system should be used for its inventory goods, which can realize the real-time update of inventory and achieve rapid turnover, prevent inventory backlog, make inventory to effective control, improve asset utilization, optimize cash management, and find more investment projects with profit potential.

(2) Reasonable control of the scale of liabilities: Gree Electric Appliances current liabilities are relatively high, indicating that most of the company's assets come from liabilities, and enterprises need to repay more debts in the short term, which is very unfavorable to the development of enterprises, and leads to the reduction of the ability of enterprises to repay debts, so in response to this problem, Gree Electric should improve the financing method according to the actual situation of the company, multi-channel financing, can use the issuance of stocks, attract direct investment from all parties and other ways to broaden financing channels and control the scale of liabilities. At the

same time, it is necessary to actively develop new businesses and increase sources of income, so as to prevent the inability to repay debts in a timely manner in the event of an external crisis, resulting in a risk of trust.

3.2 Strategies for improving long-term solvency

(1) Reduce financial leverage: through the above analysis of long-term solvency, it may be seen that the asset-liability ratio of Gree Electric is compared with the industry average, and the asset-liability ratio is significantly higher than the industry average in the past five years, which means that the total debt of the enterprise is too large, exposing the possible blindness of the company's expansion strategy. At the same time, Gree Electric should gradually reduce the financial leverage, that is to say, Gree Electric needs to reduce the asset-liability ratio. On the one hand, this can be achieved by optimizing the debt structure and reducing costs, and at the same time, Gree Electric may also gradually repay part of the debt by improving profitability, which is also an effective way to reduce financial leverage.

(2) Strengthen corporate core competitiveness: an enterprise wants to long-term and stable development to enhance its core competitiveness is one of the indispensable means, with its own competitive advantage can occupy a place in this treacherous market, on the other hand, in order to improve the long-term solvency of the enterprise, Gree Electric should also continue to enhance its core competitiveness. Among them, Gree Electric Appliances can start from increasing R&D investment and ensuring the leading position of product technology, and the home appliance industry should first take quality as the primary starting point, so Gree Electric Appliances should continue to improve product quality and service levels, and improve customer satisfaction and loyalty; This is conducive to the long-term development of the enterprise.

(3) To enhance the long - term solvency of Gree Electric Appliances: the company should strengthen financial management. Specifically, it can set up and optimize its financial management system. Gree Electric can strengthen the early warning and monitoring of financial risks to ensure the health and stability of the company's financial situation. In addition, the company should also establish a sound internal control system to ensure the authenticity and accuracy of financial information.

4. Conclusions and Prospects

4.1 Research Conclusions

Through the above research and analysis, the cash ratio in the short-term solvency of Gree Electric is too high, and we can start from improving asset utilization, optimizing cash management, and establishing an advanced inventory management system in response to this problem. Gree Electric Appliances is a leading enterprise in the field of household appliances in China, so as a leading enterprise in the household appliance industry, its solvency can directly affect the steady development and market competitiveness of the enterprise. Whether it is short-term solvency or long-term solvency, it is an important indicator of the healthy operation of an enterprise. If a company has short-term debt in the process of production and operation, it will lead to cash flow problems, which will have a negative impact on the development of the enterprise. Insufficient long-term solvency may limit the expansion and development of the enterprise. Therefore, in order to better adapt to different economic situations, enterprises must attach great importance to the improvement of debt repayment ability to ensure that enterprises can respond to various economic environmental challenges in a stable manner.

In fact, the solvency of Gree Company is also a relatively common phenomenon in the household appliance industry, and from the perspective of Gree's current financial situation, its asset allocation is not reasonable enough, there are too many debts, and the profitability level is high, which is not an isolated phenomenon, but a very common phenomenon. This is mainly caused by a variety of factors within the industry, including the competition situation within the industry, market conditions, policies, etc. It can be seen from this that the debt problem of Gree Company is no longer a problem of an enterprise, but a difficult problem that needs to be taken seriously and dealt with.

To sum up, solvency as an important cornerstone of enterprise development, all walks of life should attach great importance to introspection of their own problems, and take corresponding measures to improve solvency, in order to enhance their competitive advantage to meet the challenges of the entire market.

4.2 Research Deficiencies and Prospects

4.2.1 Insufficient research

In the process of research, this paper analyzes the financial data of Gree Electric Appliances on the basis of the analysis. However, due to the limited knowledge of individuals, the theoretical framework and practical application of this problem lack of in-depth understanding. Therefore, when studying Gree's solvency, it is difficult to comprehensively and deeply explore the reasons behind it. At the same time, there are also misunderstandings or omissions in the interpretation of Gree's financial statements and related data. Secondly, the insufficient data collection is also a deficiency of this study. Although I have tried my best to collect the financial information and relevant market information of Gree in recent years, due to the limitations and quality of the data itself, the results will inevitably have a certain deviation. In addition, because Gree is a listed company, its financial data is susceptible to the interference of other factors, such as changes in accounting standards and fluctuations in the market environment. These factors may also have a certain impact on the results of the analysis. Finally, the limitation of the research method is also a shortcoming of this study. According to the existing research results, representative cases were selected, and the solvency utilization index of Gree Electric was used to conduct an empirical study and draw relevant conclusions. However, this method cannot fully reflect the company's real solvency and potential risks. For example, corporate reputation and management quality, as non-financial factors, also play an important role in the company's solvency. However, this issue has not been covered in this paper.

In the future, I will continue to deepen the study and understanding of the solvency analysis theory, broaden the data collection channels and methods, and explore more diversified research methods, in order to more accurately evaluate the solvency of Gree Electric and put forward more targeted suggestions.

4.2.2 Research outlook

With the vigorous development of the economy and the continuous improvement of the company's management level, the evaluation requirements for the company's solvency are becoming more and more stringent.

First of all, by comparing and analyzing the financial data and market performance of Gree Electric in different time periods, we can reveal the stability and anti-risk ability of its solvency more deeply, and provide investors and decision-makers with a more comprehensive and accurate decision-making basis. Secondly, with the continuous progress of financial management theory and practice, more advanced financial indicators and analysis tools can be introduced in future research to evaluate the solvency of Gree Electric. For example, cash flow analysis can be used to evaluate the liquidity and solvency of the enterprise, or risk assessment model can be used to comprehensively analyze the various potential risks faced by Gree Electric Appliances, so as to more accurately assess its solvency;

In addition, Gree's innovative practice in debt repayment strategy and management is also an important direction for future research. Through in-depth analysis of Gree Electric's specific measures in debt structure optimization, capital utilization efficiency improvement and risk management innovation, it is hoped that the experience and enlightenment with universal significance can be summarized and extracted, and some useful references and references can be provided for the same industry.

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