Financial Analysis of Gree Electric Appliance Company Based on DuPont Analysis

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Abstract: DuPont analysis mainly focuses on the return on equity, connecting the data in the balance sheet and income statement, so as to calculate various indicators and form a more comprehensive indicator system. Based on the financial data of Gree Electric Appliance Company in recent three years, this paper will use DuPont analysis method to put forward reasonable suggestions on various problems in the actual application of the company.
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1. DuPont Analysis

1.1 Overview of the DuPont Analysis

It combines most of the data in the financial statements and calculates various financial indicators, and then links them together to form a financial analysis method with the return on net assets as the core. DuPont analysis is a comprehensive financial analysis that analyzes the company's current profitability and identifies potential problems. Its purpose is to allow leaders to identify and solve problems in the company's business process, and shareholders to see clearly the company's business situation and make accurate investment decisions.

1.2 DuPont System of Analysis

Taking the return on net assets as the starting point, decomposing it into equity multiplier and net asset margin, and then carrying on with the decomposition until the two previous indicators are decomposed into some of the items in the balance sheet and income statement, this is the DuPont analysis system. Vertical comparisons are made in different years of the same company or horizontal comparisons are made in different companies in the same year. In the process of comparison, the root causes of changes in each financial ratio indicator are found, so that leaders can make accurate management decisions and shareholders and creditors can correctly evaluate the company's operating conditions.

2. Financial analysis of Gree Electric based on DuPont analysis system

2.1 ROE Analysis

As an important indicator of the DuPont model, ROE relates to the entire operating system of a company, so analyzing the changes in ROE indicator can meet the current requirements of corporate performance evaluation. Net sales margin, total asset turnover and equity multiplier are the three factors that together determine the return on net assets.

Table 1 Comparison of the values of the main financial indicators of the DuPont analysis

Year	2019	2020	2021

Indicators			
Return on Net Assets	23.46%	19.68%	21.08%
Net sales margin	12.53%	13.01%	12.16%
Total assets turnover ratio	74%	61%	63%
Equity multiplier	2.53	2.41	3.09

GREE's return on net assets varies relatively little over the three-year period from 2019 to 2021, with 2020 being the lowest of the three years at 19.68% and 2019 being the highest at 23.46%, but shows an overall stability, reflecting the company's relatively stable profitability. Net sales margin is also relatively stable in these three years. Total asset turnover declined significantly from 74% to 61% in 2020 and increased slowly again to 63%. The equity multiplier has been increasing from 2.53 to 3.09 over the three years, indicating that the company has been operating with a gradually increasing level of debt and a corresponding increase in financial risk.

Table 2 Table of changes in factors involved in return on net assets

Year / Indicators	Change in 2020 over 2019	Change in 2021 over 2020
Net sales margin	3.83%	-6.53%
Total assets turnover ratio	-17.6%	3.28%
Equity multiplier	4.74%	28.2%

As can be seen from the table, the net sales margin shows an increase in 2020 compared to 2019, while in 2021 it starts to decrease slightly, even below the value of 2019; the total assets turnover ratio changes a lot in these three years; and the rate of change of the equity multiplier all show a positive number. Therefore, all three indicators mentioned above have a great impact on the return on net assets.

2.2 Net sales margin analysis

One of the most important indicators of a company's ability to generate sales revenue is the net sales margin, which reflects the overall profitability of a company. The higher the value of the net sales margin, the higher the level of profitability of the company through the sale of its products.

In 2019 and 2021, the values of net sales margin of Gree Electric Zhuhai Co. are more stable, reflecting the degree of sales revenue of the company is stable. Analysis of GREE's income statement shows that GREE's operating income and net profit decreases in 2020 due to the impact of the epidemic, but in 2021, with the change in GREE's business model and the full recovery of the appliance industry after the epidemic, GREE's profitability is on the upside. In 2019 to 2021 the value of cost expense is based on flatness and cost expense offsets operating income, so the change in net sales margin may be influenced by cost expense.

Further analysis of cost of revenues and costs in the income statement reveals that GREE's operating costs and taxes and surcharges show an increasing trend year by year. Although administrative expenses rose in 2021 compared to 2019, the amount of decrease in other costs was much greater than their increase, and operating income in 2021 was much smaller than in 2019, resulting in a decrease in net income and ultimately a decrease in net sales margin. Administrative expenses are rising, gradually increasing from $3,795,650,000 in 2019 to $4,051,240,000 in 2021, and the main reasons for the change are the increasing salary and compensation of managers and the depreciation and amortization of fixed assets used by the management. Therefore, management should take certain measures to reduce the cost of expenses and individual products and thus increase the net sales margin.

2.3 Analysis of total asset turnover ratio

The total asset turnover ratio can reflect the effectiveness of a company's asset usage and the rate at which it generates profit for the company. The comparative analysis of total asset turnover ratio in different years can enable shareholders to know more clearly the company's financial situation and make correct investment decisions, and at the same time, it can promote the management to explore the company's potential and further increase the company's profit.

The total asset turnover ratio of Gree Electric Appliance Company shows a decreasing trend, which indicates that the company has a low level of profit generation from its assets. However, the sudden increase in operating income in 2021 led to a gradual recovery in the total asset turnover ratio of Zhuhai Gree Electric Appliance Company Limited during the year. Therefore, managers should continue to maintain the ability of assets to create profits and gradually improve its ability to make the company's operation stronger.

2.4 Equity multiplier analysis

One way to improve a company's efficiency is to operate it through leverage, and an important indicator to assess the extent to which a company uses financial leverage is the equity multiplier. The larger a company's equity multiplier is, the more debt it carries and the less able it is to pay back what it owes. The equity multiplier, which reflects the degree of a company's financial leverage, provides every financial statement user with a clearer and more definitive picture of the company's debt.

Gree Electric's equity multiplier is generally showing an upward trend from 2019 to 2021, and although total assets are also increasing, the growth rate of total equity in 2021 is much greater than the growth rate of total assets in that year, thus the company's equity multiplier is decreasing. This indicates that Zhuhai Gree Electric Co. is using less and less borrowing to run the company and thus the company is less able to apply financial leverage.

2.5 Analysis of accounts receivable turnover ratio

The speed with which a company transforms the claims it owns into amounts it owns within a certain time period is known as the accounts receivable turnover rate. It is a financial indicator that can be used to measure how fast a company's accounts receivable are flowing.

During the period from 2019 to 2021, GREE's accounts receivable turnover ratio is 24.44, 19.50, and 16.64 in that order. The accounts receivable turnover ratio shows a continuous decreasing trend, decreasing by 20.21% in 2020 compared to 2019 and by 14.67% in 2021 compared to 2020, indicating that the company's accounts receivable turnover ratio is decreasing. The company has poor turnover of accounts receivable in its daily operations, therefore, the management should take measures to improve the turnover rate so that the turnover efficiency of the company's total assets can be further improved.

2.6 Inventory turnover analysis

Inventory turnover is the rate at which a company's own inventory assets, which include inventory as well as the money a company spends on inventory, turn over within a certain time period. The speed of inventory turnover is directly proportional to how quickly a company's inventory assets are converted into cash.

From 2019 to 2021, the company's inventory turnover rate is 6.51, 4.78 and 4.03, respectively, which shows that the inventory turnover rate is gradually slowing down, so the company's inventory conversion rate is also gradually slowing down, resulting in the company's short-term solvency and liquidity decreasing.

3. Problems in the operation of Gree Electric Company

3.1 Poor cost control

Net profit is the difference between revenue and expenses, and revenue is determined by the consumer market and the purchasing power of consumers at the time, so relatively speaking, a company can only control the various expenses it incurs to increase the amount of profit it earns. Net profit and sales revenue together determine the net sales margin. Even if a company's revenue is high, if the growth of expenses is greater than the growth of revenue, the company's profit will be lower, and thus the net sales margin will also be lower. This is the case with Gree Electric, where the net sales margin has decreased because of costs and expenses. Therefore, the company should reasonably control this part of the costs incurred to improve the company's profitability from this aspect.

3.2 Low turnover rate of accounts receivable

The turnover rate of accounts receivable can better reflect the rate at which a company recovers its accounts, and if accounts receivable are not recovered within the specified period, a certain amount of bad debt loss will occur. In the three years from 2019 to 2021, the turnover rate of Gree's accounts receivable is continuously decreasing, and the accounts receivable are not able to be recovered more quickly, so it is prone to the risk of bad debts in daily operations, which makes the company's current assets turnover much slower. Therefore, the company should strengthen its accounts receivable management so that the company's plans can be carried out on schedule and the company can grow healthily and sustainably.

3.3 Low inventory turnover rate

Inventory is a highly liquid asset that can be easily converted to cash through sales and sales, and the inventory turnover rate is a reflection of a company's inventory realization rate, which is closely related to the company's ability to meet its business and goals as planned. Between 2019 and 2021, Gree's inventory turnover rate is decreasing, which indicates that the company has some problems regarding inventory realization. The low rate of inventory realization may affect the company's plan to expand its production. Therefore, management should develop political strategies to improve the inventory turnover rate so that the company's capital chain can run steadily and the company's profitability can be increased.

4. Suggestions for countermeasures to improve the business situation of Gree Electric Company

4.1 Strengthen cost control

From the income statement, it can be seen that operating income needs to be offset by costs and expenses to varying degrees, which also indicates that the final net profit depends to a certain extent on the size of the costs and expenses, and the net sales margin will be affected as a result, while the return on net assets will also change. Therefore, the company should always pay attention to the consumption of costs and expenses in the process of operation, so as to improve the company's operating profit and thus achieve the maximum goal of net profit.

GREE's increasing operating costs, management costs and other expenses have weakened the company's profitability, so the company should develop a cost control policy to make every department in the company to be in the best position to do so. The company should also have strict control over the cost per unit of product to minimize the cost of the product, which will be very effective in reducing costs as more products are sold.

4.2 Improve accounts receivable turnover

For a company, the flow of funds is particularly important and determines the prosperity or decline of the company. If a company's accounts receivable recovery slows down, it can seriously affect the amount of money available, and in serious cases, it can cause the company to have a financial crisis or even a bankruptcy. Therefore, the company should improve the accounts receivable turnover rate while ensuring that it can make profits so that the company has sufficient funds.

GREE's accounts receivable are continuously increasing and depreciating in value due to time money value, it is important for the company to collect these funds as early as possible. The company should develop and implement a credit management system. Before forming a debt relationship with a borrowing company, the company should investigate the economic situation of the debtor company in advance to prevent the formation of bad debt provision, and build a credit rating system to match different companies so that the receivables can be collected as early as possible.

4.3 Improve inventory turnover

The inventory turnover rate actually reflects the speed of capital operation. If the inventory turnover rate of a company shows a continuous low trend, it may make the company's capital insufficient and not able to turn over well. In order to increase the turnover rate of Zhuhai Gree Electric Co., Ltd, the company needs to use sales discounts, sales discounts and other appropriate sales tools, so that the funds can be recovered to their hands earlier. Although at this time the company will reduce part of the profit gain, but this can also be more avoid the time money value of the impact. The more money the company has, the more it can continue to produce products or make other business, thus making a higher level of profit.

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