Financial Analysis of Retail Brands Under the Framework of Harvard Analytics- Taking the Three Squirrels as an Example

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Abstract. Against the backdrop of China's robust economic growth and elevated living standards, the evolution of leisure food consumption has gained momentum, marked by an elevated emphasis on quality and standards. This study employs the Harvard framework to scrutinize this phenomenon, expanding the conventional financial data analysis to encompass non-financial indicators from pertinent sectors. The research centers on a case study of "Three Squirrels," a prominent leisure food brand. The findings reveal a promising trajectory for The Three Squirrels, characterized by stable and positive development. This analysis not only sheds light on the evolving consumption patterns in China's leisure food sector but also underscores the necessity of comprehensive analysis strategies incorporating both financial and non-financial perspectives to gain a holistic understanding of market dynamics and enterprise growth prospects.

Keywords: Financial Analysis; Retail Brands; Harvard Framework.

1. Introduction

With the steady growth of the economy and the improvement of people's living standards, at the same time, the consumption of leisure food by Chinese residents has also begun to upgrade, and consumers' demand for the quality and quality of leisure food has increased. At present, the upstream and downstream management of China's food industry chain are gradually mature. Food technology and cold chain logistics are also becoming more and more advanced, and production management technology is also being standardized, standardized and digitized.

As the first snack enterprise positioned as a pure Internet brand in China, the sales scale of the Three Squirrels has always been at the forefront of the industry, and with the continuous expansion of the enterprise, the company's sales have also continued to achieve breakthroughs, since being listed on the Growth Enterprise Market of the Shenzhen Stock Exchange, and was honored as the "first stock of national snacks" on the day of listing.

This paper selects the "Three Squirrels", which are representative in the snack food industry, and uses the Harvard framework to analyze, and expands the traditional single analysis of financial data to non-financial information in related fields such as the industry environment of the enterprise, so that the results of financial analysis are more comprehensive and objective.

2. SWOT Analysis

2.1 Strengths

The Three Squirrels is an omni-channel company with nuts as the core sales product, providing consumers with a rich range of snack foods based on health and digitalization. Three Squirrels has the world's leading nut packaging factory, Three squirrels have built the world's leading nut dispensing factory, the factory is equipped with high-level automation equipment, the overall scale of the company and the company's planning is building its own manufacturing outstanding advantages of the development trend match, and strive to make the company have the ability to integrate the whole industry from sales to production to raw material penetration. The Three Squirrels also has a rich sales channel , At the same time, implement an omni-channel sales strategy. Online stores have been set up on third-party channels such as Tmall, JD.com, Taobao, Dangdang, and other third-party channels and online and offline operations at the same time, so that the inventory turnover
rate of goods has been greatly improved. Consumers have high recognition and loyalty to the Three Squirrels brand.

2.2 Weaknesses

The Three Squirrels do not have their own independent supply chain, and there are risks of potential food safety problems in production, processing, storage and transportation. Three squirrels mainly rely on online sales, few physical stores, some of the production products use outsourcing OEM model, if the lack of grasp of the OEM enterprise, may make the product quality uneven, therefore, in recent years, the product problems of the three squirrels have also appeared from time to time.

2.3 Opportunities

At present, the Three Squirrels has been sold through Tmall, JD.com and other channels, and the company has seized the development opportunities of rapid growth in the industry and has developed into a flagship brand in the field of snack food retail, with excellent demand insight capabilities and supply chain advantages. At the same time, the company also actively deploys offline sales channels.

2.4 Treats

Food safety has always been a core concern for the food industry and consumers, and a major concern for the relevant supervisory authorities. Due to the hidden dangers of food safety problems that appeared before, the relevant quality supervision department has also increased its supervision of the food industry, strictly supervising the process and quality of food processing, which also plays a supervisory role for the Three Squirrels company. In addition, in recent years, the traffic of online sales on various platforms has shown a trend of gradual decline, and the Three Squirrels, as an enterprise whose revenue mainly comes from e-commerce platform sales, needs to develop and deploy omni-channel operations. In contrast, other snack companies such as BESTORE have already occupied a large number of offline snack sales markets, so the road to the omni-channel development of the Three Squirrels is still a long way off.

3. Accounting analysis

Accounting analysis is to analyze the financial data of an enterprise, analyze and evaluate its reasonableness and accuracy according to the characteristics of data quality under constraints, and determine whether the value disclosed in the current statement is consistent with the real situation of the enterprise. It is necessary to have a clear understanding and deconstruction of the accounting policies and accounting estimates of the enterprise based on this.

Table 1 List of date relevant indicator data of accounting analysis of the Three Squirrels

<table>
<thead>
<tr>
<th>Metrics</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary funds</td>
<td>25.27%</td>
<td>8.3%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>4.96%</td>
<td>3.83%</td>
<td>8.69%</td>
</tr>
<tr>
<td>Inventory</td>
<td>31.56%</td>
<td>33.22%</td>
<td>23.61%</td>
</tr>
</tbody>
</table>

3.1 Monetary fund analysis

Monetary capital analysis is a major aspect of accounting analysis, monetary funds can reflect whether the cash situation of the enterprise is sufficient. The proportion of monetary funds is too low, indicating that the liquidity of funds of enterprises is poor, and it is easy to have problems such as capital breakage; If the proportion is too high, there will be a waste of funds. From the table, it can be seen that 25.27% in 2020, which is the normal proportion range, and the business affected by the epidemic in 2021 and 2022 has stagnated, suddenly falling to 3.8%, at this time, the Three Squirrels company has a problem of poor capital turnover, and after several cycles of turnover, not only
monetary funds will gradually decrease, but also the asset scale and owner's equity of the enterprise will gradually decrease.

### 3.2 Accounts receivable analysis

The data of the Three Squirrels in 2020 and 2021 were less than 5%, rising to 8.69% in 2022, and the proportion of accounts receivable increased, which reflects the poor overall credit situation of the industry and the poor operating environment; The return of funds from enterprises is slow, and the efficiency of monetization is low, resulting in inefficient use of funds. Affected by the epidemic, the amount of credit sales of enterprises has increased, the recovery speed is slow, and the company's sales capacity is insufficient, and it needs to speed up the collection speed. However, the accounts receivable indicator is still within reasonable limits.

### 3.3 Inventory analysis

Inventory can reflect whether the turnover speed of the enterprise is normal. The lower the proportion of inventory to total assets, the less inventory the enterprise holds in the course of operation, which means that the enterprise pays more attention to operational efficiency. Inventory assets are the first major asset type of the Three Squirrels, and the valuation method of the Three Squirrels for inventory is a weighted average method at the end of the month, and the inventory adopts the perpetual inventory system. The proportion of inventory of the three squirrels to the total assets is lower in 2022 than in other years, and although the inventory proportion of the Three Squirrels is in a normal stage, it is still necessary to prevent the occurrence of inventory backlog to avoid waste of resources. The Three Squirrels now have a lower inventory ratio, which can reduce the risk of inventory overstock and slow sales, and improve the risk resilience of enterprises. A low percentage of inventory can also lead to stock-outs, impacting customer experience and market share. Therefore, the Three Squirrels need to reasonably control the inventory level according to their own situation and industry characteristics, ensure the timeliness and adequacy of product supply, improve asset turnover and profit margin, and achieve sustainable development of enterprises.

### 4. Financial analysis

#### 4.1 Profitability analysis

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Scheme 1</th>
<th>Scheme 2</th>
<th>Scheme 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on equity (weighted)</td>
<td>5.67%</td>
<td>19.49%</td>
<td>15.16%</td>
</tr>
<tr>
<td>Return on equity (net of non/weighted)</td>
<td>1.78%</td>
<td>15.15%</td>
<td>12.31%</td>
</tr>
<tr>
<td>Return on total assets (weighted)</td>
<td>2.70%</td>
<td>8.72%</td>
<td>6.52%</td>
</tr>
<tr>
<td>Gross margin</td>
<td>26.74%</td>
<td>29.38%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Net profit margin</td>
<td>1.77%</td>
<td>4.21%</td>
<td>3.08%</td>
</tr>
</tbody>
</table>

Profitability refers to the company's ability to earn profits in a certain period of time, that is, the ability to add value to funds, which is also one of the most concerned capabilities of enterprises, so profitability analysis is the focus of corporate financial analysis. To analyze the profitability of the Three Squirrels, the first thing to look at is the return on net assets, in order to grasp the weighted return of the three squirrels as a whole. As can be seen from the table, the return on equity of the Three Squirrels has decreased year by year in the past three years, because the company has raised funds to expand the scale of operation after listing, and invested a lot of capital, so the return on equity has continued to decline, although it has increased in 2021, but it still reflects the overall profitability is weak. The return on total assets has also shown a downward trend year by year, indicating that its ability to use total assets to create profits is deteriorating. The gross profit margin index represents the operating results of an enterprise in various economic activities, and is also an important basis for calculating the final net profit of the enterprise. The gross profit margin of the sales of the Three Squirrels has increased year by year in the past three years, indicating that the company has reasonable
cost control, product sales profit has rebounded, and the company's development ability has gradually increased. And the net profit margin of sales of the Three Squirrels Company gradually declined. Although the gross margin and net profit margin have improved in 2021, it still reflects the weak profitability of the Three Squirrels.

4.2 Analysis of solvency

Table 3 List of data on indicators related to the solvency of the Three Squirrels

<table>
<thead>
<tr>
<th>Metrics</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity ratio</td>
<td>1.797</td>
<td>1.599</td>
<td>1.694</td>
</tr>
<tr>
<td>Quick ratio</td>
<td>1.217</td>
<td>0.914</td>
<td>1.005</td>
</tr>
<tr>
<td>Cash ratio</td>
<td>0.04</td>
<td>0.241</td>
<td>0.595</td>
</tr>
<tr>
<td>Gearing ratio</td>
<td>48.34%</td>
<td>55.13%</td>
<td>52.37%</td>
</tr>
<tr>
<td>Equity multiplier</td>
<td>1.936</td>
<td>2.229</td>
<td>2.099</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>0.936</td>
<td>1.229</td>
<td>1.099</td>
</tr>
</tbody>
</table>

Solvency analysis is also an important part of an enterprise's financial analysis, which is an important indicator to judge whether the enterprise has the ability to repay and whether there is a potential debt repayment risk, and the level of solvency directly reflects whether the enterprise can repay the debt on time. Solvency is divided into short-term solvency and long-term solvency according to time.

4.2.1 Short-term solvency

As can be seen from the table, the current ratio of the Three Squirrels increased from 1.694 to 1.797, showing an upward trend, indicating that the short-term solvency of enterprises is gradually becoming stronger. The quick ratio was greater than 1 in 2020 and 2022, and decreased in 2021 to a value less than 1, indicating that the company's quick assets were insufficient to repay short-term liabilities in 2021, and the company may have been affected by the COVID-19 epidemic at that time, and there was some pressure on debt repayment. The cash flow ratio of the Three Squirrels has shown a downward trend year by year, and the cash ratio is the ratio of the balance of quick assets after deducting accounts receivable to current liabilities, which can best reflect the ability of enterprises to directly repay current liabilities, so the ability of enterprises to repay short-term debts is still possible. As a snack food retail company, the Three Squirrels have a large proportion of inventory, and the volatility of inventory is strongly affected by the season, so it is reasonable for the current ratio and quick ratio to fluctuate, but the current ratio and quick ratio values are generally upward.

4.2.2 Long-term solvency

In the long-term solvency index, the asset-liability ratio is an inverse value, which means that the smaller the value, the stronger the long-term solvency of the enterprise, and conversely, the larger the value, the weaker the long-term solvency of the enterprise. Generally speaking, the larger the equity multiplier value, the more sufficient the financial leverage of the enterprise, that is, the more debt, which will make the financial risk of the enterprise greater. The lower the equity ratio, the stronger the ability of the enterprise to repay debts. The asset-liability ratio of the Three Squirrels has been gradually optimized after 2020, from 52.37% in 2020 to 48.34% in 2022, which is a relatively reasonable change in value, and the risk of capital turnover has decreased, indicating that the financial risk of the Three Squirrels has been better controlled. Based on the above analysis, it can be seen that the asset-liability ratio of the three squirrels is decreasing year by year, the equity ratio is decreasing year by year, and the equity multiplier is stable, so the long-term solvency of the Three Squirrels is strong.
4.3 Analysis of operational capabilities

Table 4 List of financial indicators related to the operational capacity of the Three Squirrels

<table>
<thead>
<tr>
<th>Metrics</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory turnover</td>
<td>3.896</td>
<td>4.508</td>
<td>3.853</td>
</tr>
<tr>
<td>Accounts receivable turnover</td>
<td>24.68</td>
<td>46.20</td>
<td>40.27</td>
</tr>
<tr>
<td>Total asset turnover</td>
<td>1.524</td>
<td>2.071</td>
<td>2.119</td>
</tr>
</tbody>
</table>

The operation capability of the enterprise reflects the ability of the enterprise to utilize assets, and mainly reflects the efficiency of the overall operation of the enterprise. Through the analysis of inventory turnover, accounts receivable turnover and total asset turnover, these indicators can be used to reflect the overall operating capacity of the enterprise.

The inventory turnover rate of the Three Squirrels increased from 3.853 in 2020 to 4.508 in 2021 and decreased to 3.896 in 2022, reflecting the faster inventory turnover of the Three Squirrels, the lower level of inventory occupancy and strong liquidity. The Three Squirrels' accounts receivable turnover rose steadily to 46.2 between 2020 and 2021, but declined to 24.68 in 2022, and the slowdown in sales growth may be one of the main reasons for the decline in accounts payable turnover. Before 2021, the sales of the three squirrels maintained rapid growth, and after 2021, the sales growth gradually slowed down, and the accounts payable turnover rate declined; The three squirrels also face supply chain problems in actual operations, such as delays in supplier provision of goods, quality problems, etc., which may lead to an increase in the inventory backlog of the three squirrels, which in turn leads to a decrease in accounts receivable turnover. The total asset turnover ratio of the Three Squirrels decreased from 2.119 in 2020 to 1.524, indicating that the operational efficiency in recent years may be inefficient, and there may be problems of unmarketable products and inventory backlog; Whether the financial management of the Three Squirrels is appropriate, such as whether the capital allocation is reasonable and whether the cost control is in place, will also directly affect the total asset turnover.

In general, in terms of operational capacity, the Three Squirrels is affected by the internal and external environment, and these three indicators have slowed down, indicating that the control efficiency of assets and inventory needs to be improved, and the management of accounts receivable should be strengthened, reasonable account recovery policies and the construction of receivable system should be strengthened, so that the number of funds trapped in accounts receivable can be reduced, and the efficiency of fund use should be improved. In this way, the overall operational capacity is improved.

5. Prospect analysis

5.1 Control product quality

From the overall perspective of the snack industry, food retail is gradually entering a stage of steady development. Due to the low threshold for doing business in the food and snack industry. As a result, a large number of small and medium-sized food processing and retail enterprises have been born, and the market competition is extremely fierce. However, food enterprises generally have problems such as high costs, slow product sales, and low profits. Coupled with the Three Squirrels' own dependence on food processing, it is difficult to supervise the manufacturing process. Food safety has always been a top priority in our country, which makes it necessary for food companies to implement changes and improvements if they are to survive in a volatile environment. In addition, the Three Squirrels need to determine the product quality management process as soon as possible, by breaking the traditional model, taking the customer as the core, fundamentally promoting the improvement of product quality, and ultimately comprehensively enhancing the overall competitiveness of the company.
5.2 Improve the cost management system

The growth rate of the net profit of the three squirrels seriously lagged behind the growth rate of total operating income and total assets, which limited the improvement of corporate profitability. The cost management system should be improved, the consumption quota of various resources such as human, material and financial resources should be formulated, the absolute amount of cost reduction expenditure should be reduced, and the cost should be controlled within the budget for cost management and control system lays the foundation.

5.3 Build an omni-channel marketing network

The Three Squirrels should make use of the advantages of the Internet's online channels and their own platforms, fully combine with offline outlets in physical scenarios, further improve sales channels, promote online and offline multi-channel layout strategies, use live broadcast platforms to promote and bring goods, integrate the information advantages accumulated by the three squirrels themselves for many years of online operation, and then combine with a mature supply chain system to optimize product layout and jointly improve the efficiency of online and offline dual channel operations.

6. Conclusion

The increasing maturity of Internet technology and the rapid change and development of modern technology provide sufficient technical support for the construction of e-commerce platforms. In recent years, the marginal increase in traffic of mainstream e-commerce platforms has gradually slowed down, showing a trend of decentralization, and under the epidemic, live streaming e-commerce has developed rapidly, the number of live streaming goods has emerged, the audience has continued to expand, and it has gradually become the most mainstream shopping method for consumers. These undoubtedly do not lay the support for the mature development of the three squirrels in the external superior environment. Chinese consumers continue to achieve consumption upgrades, and per capita disposable income is also increasing, which also affects the consumption level and consumption capacity of residents to a certain extent. So that people's purchasing power and purchase demand for leisure snacks have gradually increased. The Three Squirrels themselves must also pay attention to their own cost control while being open source, so the stable and positive development of the enterprise is in the near future.

References