

Sunwoda's Financial Analysis Based on The Harvard Analytical Framework

Deqian Deng, Xinrong Zeng

Sichuan University of Science & Engineering, Zigong, Sichuan, China

Abstract: In order to comply with the strategy of sustainable development, China hopes to further accelerate the rapid development of the new energy vehicle industry and supporting industries. Power battery is the core component of new energy vehicles, and the selection of sunwoda in the battery industry for financial analysis can provide a useful reference for the same type of enterprises. This paper selects sunwoda as an analysis case, applies the Harvard analytical framework to sunwoda's financial analysis, and conducts in-depth discussion and analysis of sunwoda's financial status and existing problems. The analysis found that sunwoda is currently in the growth period, adopting a growth-oriented development strategy to gradually expand the scale of the enterprise, with many projects under construction and rapid growth in scale. However, behind the seemingly perfect financial data, there are problems such as low profitability, intensified market competition, and insufficient future development capabilities. In view of these problems, corresponding improvement suggestions are put forward, hoping to help the development of sunwoda.

Keywords: Financial analysis, Sunwoda, Harvard Analytical Framework, Strategic analysis.

1. Introduction

1.1. Background and Implications

In recent years, with the support of various national policies, new energy vehicles have developed rapidly in China, and power batteries, as the core part of new energy vehicles, have been further developed with the progress and reform of the industrial chain [1].

Sunwoda Electronics Co., Ltd. (hereinafter referred to as "sunwoda") was established in 1997 and is one of the pioneers in China's lithium battery industry. sunwoda has made remarkable achievements in the field of consumer batteries, with a global market share of 30% in the mobile phone battery business, and has become the fourth global power battery first-class manufacturer in China.

At present, sunwoda is in a period of rapid development, there are many risks and challenges hidden behind the increasing revenue and profits, sunwoda also needs to understand its own environment, enhance the scale of the industry and product competitiveness, in order to continue to grow healthily.

Recently, sunwoda has also been listed in the 2024 "Fortune" China's top 50 science and technology companies, which has caused heated discussions, because sunwoda's financial situation is not leading enough in the same industry, everyone is eager to understand sunwoda's real financial situation and potential risks, but there is still relatively little research in this area. This paper selects Xinwang Da as an analysis case, and combines the Harvard analysis framework with the battery industry, which helps to expand the application field of the Harvard analysis framework and improve the research on the battery industry financial analysis.

1.2. Research Ideas and Methods

1.2.1. Research ideas

Based on the Harvard analytical framework, this paper selects sunwoda, a representative battery company, as the object of analysis. On the basis of the relevant financial

analysis theory, a more detailed analysis of sunwoda's financial situation in the past four years was carried out. The article first briefly expounds the reasons for the selection of the topic, and gives a brief introduction to the development of sunwoda, and then conducts strategic analysis to grasp the macro environment in which the enterprise is located; Accounting analysis of the accounting policies adopted by the enterprise; Conduct financial analysis of the changes in the company's financial indicators; Prospect analysis is an analysis of industry prospects and business prospects [2]. Finally, the problems existing in sunwoda were analyzed and corresponding suggestions were put forward.

2. Sunwoda Financial Analysis

2.1. Introduction to Sunwoda

Sunwoda Electronics Co., Ltd. (hereinafter referred to as "sunwoda") was established in 1997 and is one of the pioneers in China's lithium battery industry. sunwoda has made remarkable achievements in the field of consumer batteries, with a global market share of 30% in the mobile phone battery business, and has become the fourth global power battery first-class manufacturer in China.

Sunwoda's has made some achievements in the power battery market in recent years. According to the data, from 2021 to 2023, sunwoda ranked first in China's HEV hybrid vehicle battery installed capacity for three consecutive years, and ranked among the top ten in the global power battery installed capacity in the first half of 2024.

In the new energy vehicle industry chain, sunwoda mainly provides high-quality automotive power batteries for downstream car companies. With the gradual completion of the power battery business, sunwoda's scale and profits will continue to increase [3].

2.2. Strategic Analysis

2.2.1. PEST analysis

(1) Political environment

Policy support: The Chinese government has strong

support for the new energy vehicle and power lithium battery industry, and has issued a series of policies to promote the development of the industry, such as the "New Energy Vehicle Industry Development Plan (2021-2035)", which provides a good external environment and development opportunities for enterprises such as sunwoda.

(2) Economic environment

Market demand: With the growth of global demand for new energy vehicles, the market size of power lithium batteries continues to expand, and the size of China's new energy vehicle market will be 11.5 trillion yuan in 2023, a year-on-year increase of 16.2%, and is expected to reach 2.31 trillion yuan in 2025.

Cost pressure: The price fluctuations of key materials for lithium batteries may affect sunwoda's cost control, such as the continuous decline in the price of lithium battery cells in 2023, which will have an impact on the cost control and profit margin of battery manufacturers.

(3) Social factors

Environmental awareness: The increasing global emphasis on environmental protection and sustainable development has promoted the popularization of new energy vehicles and clean energy, creating a larger market space for lithium battery manufacturers such as sunwoda.

Consumer preference: Consumers have higher expectations for the endurance and safety performance of new energy vehicles, which requires companies such as sunwoda to continuously meet market demand in product development and design.

(4) Technical factors

Technological innovation: The rapid technological progress of the power lithium battery industry, such as the research and development of new battery technologies such as solid-state batteries and sodium-ion batteries, is both a challenge and an opportunity for companies such as sunwoda, and it is necessary to continuously invest in research and development to maintain technological leadership.

Production efficiency: With the development of automation and intelligent manufacturing technology, sunwoda can improve production efficiency and product quality and reduce production costs through technology upgrading.

Through the above PEST analysis, we can see that sunwoda is facing certain opportunities and challenges in politics, economy, society and technology. Companies need to pay close attention to these changes in the external environment in order to formulate corresponding strategic plans, seize market opportunities and respond to potential risks.

2.2.2. Porter's Five Forces Model

Porter's Five Forces Model helps companies develop appropriate strategies by building a five-factor model that analyzes the competitive situation in the industry. Here, this article provides an in-depth analysis of sunwoda's industry competition. It mainly includes the analysis of the following five factors:

For the strategic analysis of Porter's Five Forces model of sunwoda, we can consider the following aspects:

(1) Peer competition. sunwoda faces fierce competition in the lithium battery industry, especially with CATL, BYD and other leading companies. These companies have significant advantages in technology, scale, and market share, resulting in extremely competitive industries.

(2) Threat of new entrants. The high technical threshold and capital-intensive nature of the lithium battery industry, as well as the brand and customer loyalty of incumbents,

constitute a barrier to new entrants. However, with the advancement of technology and the growth of market demand, new entrants may enter the market through innovative or low-price strategies, posing a threat to sunwoda.

(3) Threat of substitutes. With the development of new energy technologies, alternative technologies such as fuel cells and supercapacitors may pose a threat to the lithium battery market. Although lithium batteries currently have advantages in terms of energy density, cost, and charging speed, advances in alternative technologies may weaken the market position of lithium batteries.

(4) Bargaining power of suppliers. The key raw materials of lithium batteries, such as lithium and cobalt, fluctuate greatly in price, and the bargaining power of suppliers is strong. Sunwoda needs to ensure the stability of raw material supply and cost control to maintain the competitiveness of its products.

(5) The bargaining power of the purchaser. As competition in the NEV market intensifies, automakers are increasingly demanding battery price and performance, which strengthens buyers' bargaining power. sunwoda needs to reduce costs through technological innovation and economies of scale to meet customer needs and remain competitive in the market.

Based on the above analysis, sunwoda is facing a fierce competitive environment in the lithium battery industry, and needs to maintain its market position through continuous technological innovation, optimization of cost structure, expansion of market share and improvement of product differentiation. At the same time, companies need to keep a close eye on industry dynamics to counter the threat of potential new entrants and alternatives.

2.2.3. Strategic Choices

As an important enterprise in the lithium battery industry, sunwoda is currently in the growth period of the industry. At this stage, sunwoda should adopt the following development strategies:

Technological innovation and product upgrading: Continue to increase R&D investment to promote the improvement of battery energy density and reduce costs. Pay attention to the development of new battery technologies such as solid-state batteries and sodium-ion batteries to maintain technological leadership and market competitiveness.

Market expansion: Actively expand domestic and foreign markets, especially new energy vehicles and energy storage markets, to meet the growing market demand. Strengthen cooperation with new energy vehicle manufacturers to increase market share.

Supply chain management: Optimize supply chain management to ensure the stability of raw material supply and cost control to cope with the risk of raw material price fluctuations.

Capacity planning: Reasonable planning of capacity expansion to avoid the risk of overcapacity caused by blind expansion. At the same time, improve production efficiency and product quality to meet market demand.

Environmental protection and sustainable development: Strengthen environmental awareness, promote green production, energy conservation and emission reduction, so as to meet the challenges of global sustainable development. This not only helps to enhance the corporate image, but also responds to the needs of the national "dual carbon" policy.

Risk management: Establish a sound risk management system, pay close attention to policy changes, market demand fluctuations, technology substitution risks and international

trade risks, so as to formulate effective response strategies.

International Cooperation and Competition: In the context of globalization, strengthen international cooperation and expand the international market, while paying attention to the dynamics of international competitors in order to formulate effective international competition strategies.

Intelligent and digital transformation: Use industrial Internet, big data, artificial intelligence and other technologies to improve the level of production automation and intelligence, optimize production processes, and improve production efficiency and product quality.

Through the above strategies, sunwoda can further consolidate and enhance its position in the lithium battery industry during the growth period and achieve sustainable and healthy development.

2.3. Accounting Analysis

Based on the above-mentioned detailed strategic analysis results of sunwoda, it is necessary to combine the accounting analysis in this part to evaluate the applicability of the accounting policies and accounting estimates of sunwoda's important accounting subjects as the basis for financial analysis under the framework.

2.3.1. Identification of key accounting policies

According to the data of sunwoda's 2023 annual financial statements, sunwoda's accounts receivable, inventory and fixed assets account for about 40% of the total assets, which is a significant key accounting account in the balance sheet of the enterprise. Below, we will carry out a detailed accounting analysis from these three ledger accounts.

Table 3-1. Proportion of sunwoda's main assets in total assets from 2020 to 2023 years

Year project	In 2020	In 2021	In 2022	In 2023
Accounts receivable	24.48%	20.06%	16.71%	15.07%
stocks	16.70%	17.91%	13.26%	8.89%
fixed asset	19.35%	19.77%	14.87%	16.95%
total	60.53%	57.74%	44.84 %	40.91 %

Data source: sunwoda 2020-2023 annual financial statements

2.3.2. Accounts receivable and notes receivable

(1) Accounting policies and accounting estimates for accounts receivable

Accounts receivable and notes receivable are accounting subjects that affect the income and profit of enterprises, and the most important account receivable account is the provision and provision standard for bad debts, according to sunwoda's annual financial report for 2020- 2023, the provision for bad debts of the credit risk characteristic combination is provided for using the expected credit loss model.

(2) Specific analysis of accounts receivable

As can be seen from Table 3-1, sunwoda's operating income and accounts receivable grew rapidly from 2020 to 2022, but declined from 2022 to 2023. This may indicate that the company is also trying to control the growth rate of accounts receivable while expanding sales, so as to maintain the rationality of the asset structure as much as possible. From 2020 to 2023, the proportion of accounts receivable in total assets has been declining, because the growth rate of sunwoda's assets is greater than the growth rate of accounts

receivable, which is a good financial performance of sunwoda, and the company needs to continue to strengthen accounts receivable management to reduce potential financial risks.

2.3.3. Inventory

(1) Accounting policies and accounting estimates of inventories

sunwoda's inventory is divided into raw materials, products in process, inventory commodities, issued commodities, semi-finished products, low-value consumables, etc., inventory valuation is based on the actual cost at the time of acquisition, and raw materials are issued according to the weighted average method. The inventory adopts the perpetual inventory system, and the turnover materials are resold at the time of requisition. Inventories are usually provided for on a per-item basis. Between 2020 and 2023, there were no significant changes to inventory-related accounting policies and accounting estimates, which remained consistent.

(2) Specific analysis of inventory

sunwoda company uses the actual cost method to accurately reflect the inventory information, and the perpetual inventory system can also reflect the remaining situation of raw materials very clearly, and uses effective relevant policies in inventory management. As can be seen from Table 3-2, the inventory amount of sunwoda increased from 5.1 billion to 9.8 billion from 2020 to 2022, which may be due to the inventory backlog caused by the increase in market competition and product requirements during this period, And the inventory is down to \$7 billion by 2023, indicating that sunwoda's products have opened up sales channels, adjusted production and sales strategies, and the quality and performance have been recognized by consumers. In general, sunwoda's inventory is still too much, the inventory pressure is too large to strengthen inventory management, the amount of inventory price decline reserve is high, we should strengthen the planning of production and inventory, find a way suitable for product sales, scientifically reduce inventory, and improve the turnover rate of inventory.

Table 3-2. Sunwoda 2020-2023 inventory analysis table Unit: 100 million yuan

Year project	In 2020	In 2021	In 2022	In 2023
stocks	51	76	98	70

Data source: sunwoda 2020-2023 annual financial statements

2.3.4. Fixed assets

(1) Accounting policies and accounting estimates of fixed assets

Sunwoda's fixed assets mainly include buildings and buildings, machinery and electronic equipment, transportation equipment and other equipment, etc., which are measured at actual cost when the fixed assets are acquired, and depreciation is calculated by the average method of service life.

(2) Specific analysis of fixed assets

From Table 3-3, it can be seen that sunwoda's fixed assets have shown a trend of rapid growth, doubling in the past three years. This is due to the rapid development of sunwoda in recent years, the rapid accumulation of a large amount of funds, in order to cope with the competition in the industry and the needs of its own expansion and development, sunwoda continues to increase investment in the construction of plants and subsidiaries in various places to further expand the scale of production. sunwoda's fixed assets and

construction in progress continue to grow, which may indicate that the company is expanding its production capacity, but it may also lead to an increase in depreciation expenses and affect the profit level.

Table 3-3. Analysis of sunwoda's fixed assets from 2020 to 2023
Unit: 100 million yuan

Year project	In 2020	In 2021	In 2022	In 2023
Closing balance of fixed assets	59	84	110	134
Construction in progress	19	20	80	106
Fixed asset turnover ratio	5.82	5.20	5.35	3.90

Data source: sunwoda 2020-2023 annual financial statements

2.3.5. Summary

In general, the possible problems of sunwoda mainly include:

(1) Accounts receivable growth is slow, total assets grow rapidly: the proportion of accounts receivable in total assets continues to decline, which may indicate that the company's sales collection rate is slow, and the rapid growth of total assets may be due to the company's expansion of investment or increase inventory, which may affect the company's cash flow and financial stability.

(2) High inventory level: sunwoda's inventory first rose and then decreased in 2020-2022, which may reflect the company's supply chain management problems, such as the mismatch between production plans and market demand, resulting in inventory overstock. High inventory levels may increase the risk of storage costs and inventory depreciation provisions.

(3) Higher debt-to-asset ratio: The data shows that Xinwanda's asset-liability ratio has increase in 2023, which may mean that the company relies on debt financing to a high degree, increasing financial risks.

(4) Growth of fixed assets and projects under construction: sunwoda's fixed assets and projects under construction continue to grow, which may indicate that the company is expanding its production capacity, but it may also lead to an increase in depreciation expenses and affect the profit level.

On this basis, a more in-depth and comprehensive (framework) financial analysis will be carried out.

2.4. Financial Analysis in the Framework

Combined with the results of the above strategic analysis and accounting analysis, based on the financial statement data of sunwoda from 2020 to 2023, the financial indicators are analyzed in depth, and we try our best to present the true and objective financial and operational situation of sunwoda Company more accurately.

2.4.1. Solvency analysis

The purpose of solvency analysis is to assess a company's ability to use its own assets to repay its debts, among which the current ratio, quick ratio, debt-to-asset ratio, and interest guarantee ratio are the four most commonly used indicators [4].

The company's ability to pay off its debts is good and it can repay its debts on time, indicating that the business is operating normally and its financial condition is relatively good. The following is an analysis of the changes in the ratios in the table.

Table 3-4. Analysis of solvency indicators of sunwoda from 2020 to 2023

project	In 2020	In 2021	In 2022	In 2023
liquidity ratio	0.99	1.10	1.16	1.27
Debt-to-asset ratio	76.70%	67.75%	64.69%	59.07%
Quick ratio	0.72	0.78	0.90	1.06

Data source: sunwoda 2020-2023 annual financial statements

As can be seen from Table 3-4, sunwoda's debt-to-asset ratio fluctuated during thisperiod, from 76.70% in 2020 to 59.07% in 2023, indicating that the company has achieved certain results in reducing the debt ratio. A decrease in the gearing ratio usually means an increase in the company's financial stability, but it is also important to pay attention to its impact on the company's ability to expand. sunwoda's current ratio is 1.22 in June 2024, which is lower than the industry average of 1.955, indicating that the company's solvency is relatively weak in the short term and may face certain liquidity pressure.

2.4.2. Profitability Analysis

The analysis of the solvency of the company alone cannot meet the needs of various users of financial information, and it is also necessary to combine the profitability analysis, an important component of financial analysis, because profitability is the ultimate goal of business operation. Profitability is a relative concept for companies of different sizes, and most companies often use profit ratios for profitability analysis, which helps companies of different sizes to make comparisons. The following will analyze the profitability of sunwoda in the past four years from several aspects, such as net profit, net profit margin of main business, net profit margin of assets and return on assets.

As can be seen from Table 3-5, the operating profit margin has gradually decreased since 2021, indicating that sunwoda's ability to obtain profits from its main business income is getting weaker and weaker. The slow decline in the net profit margin of assets shows that sunwoda's utilization efficiency of assets is reduced, and it is not good enough to increase revenue, reduce expenditure and accelerate capital turnover. The continuous decrease in the return on total assets indicates that sunwoda has poor economic returns in terms of investment, and can reduce investment funds on the basis of reasonable risk control.

Table 3-5. Analysis of sunwoda's profitability indicators from 2020 to 2023

index	In 2020	In 2021	In 2022	In 2023
Operating margin	3.29%	2.64%	0.81%	0.35%
Net profit margin on assets	2.7%	2.45%	2.04%	2.25%
Return on total assets	2.96%	2.50%	1.82%	1.4%

Data source: sunwoda 2020-2023 annual financial statements

Overall, in recent years, sunwoda's profit margin is lower than the average level of the industry and continues to decline, and the profitability of the current industry is poor. This may be due to the fact that sunwoda has engaged in large-scale M&A investments, capacity expansion and fixed asset investments globally, which may increase the company's financial burden and affect profit margins in the short term.

2.4.3. Operational capacity analysis

Operational capability is the ability of the management to

use the existing resources of the enterprise to obtain profits through a series of transactions and businesses, and it is necessary for the enterprise to adopt a reasonable operation mode if it wants to improve the solvency and profitability of the enterprise. In financial analysis, accounts receivable turnover, total asset turnover, and inventory turnover are often used to evaluate the operating capacity of a company and the following three indicators will be analyzed in detail.

Table 3-6. Analysis of sunwoda's operating capacity indicators in 2020-2023

index	In 2020	In 2021	In 2022	In 2023
Accounts receivable turnover	4.71	4.65	4.97	3.92
Inventory turnover	5.51	5	5.13	4.83
Total asset turnover	1.09	1.02	0.89	0.62

Data source: sunwoda Annual financial Statements for 2020-2023.

The data in Table 3-6 can be analyzed successively: the turnover rate of accounts receivable has fluctuated in the past four years. Generally speaking, the turnover rate is at a low level in the industry and has a downward trend, which may indicate that the company is facing challenges in credit management and the collection cycle has been extended. A lower turnover rate can mean that it takes longer for a company to recover sales revenue, which can affect cash flow and short-term solvency.

The inventory turnover rate is moderate but has a downward trend, which may be due to the high inventory backlog due to the reduction of market demand, which indicates that the turnover rate and liquidity of inventory in 2023 will decline, and sunwoda should expand sales channels, supplemented by reasonable inventory management.

Total asset turnover, the turnover level is low and the overall state is slowly decreasing. It shows that sunwoda's asset management level is poor and its operational efficiency has decreased, which may be related to the company's expansion of asset scale, but revenue growth has not kept pace.

2.4.4. Growth ability analysis

Through the analysis of sunwoda's operating capabilities, it can be seen that sunwoda is not good enough in terms of operating capacity and profitability. On this basis, does sunwoda have the ability to continue to grow in the future? This also requires an analysis of the company's ability to grow. The growth ability of the enterprise, that is, the ability of the enterprise to maintain sustainable development in the future, the growth rate of the main business and the growth rate of net profit can effectively reflect the growth ability of the enterprise [5].

Table 3-7. Analysis of sunwoda's growth capacity indicators from 2020 to 2023

project	In 2020	In 2021	In 2022	In 2023
Operating profit growth rate	20.70%	1.0%	-57.4%	-59.7%
Net profit growth rate	6.79%	14.18%	16.17%	0.77%

Data source: sunwoda 2020-2023 annual financial statements.

According to the data in Table 3-7, the growth rate of the main business and the growth rate of net profit have continued to decline, which may indicate that the market competition of

sunwoda products is fierce, resulting in a decrease in demand. The ability to expand business is weak, and the future growth of the enterprise is not good enough.

2.5. Prospect Analysis

In the above analysis, we can already have a basic understanding of sunwoda, on this basis, it is also necessary to summarize, use prospect analysis to predict the future development of sunwoda, and put forward effective development suggestions in the next chapter. The outlook analysis will focus on the industry outlook and the business outlook.

2.5.1. Industry Prospects

In order to cope with the goal of achieving carbon neutrality by 2060, China has used clean energy to save energy and reduce emissions. Carbon emissions are mainly concentrated in the power industry and the transportation sector, the power industry emission reduction mainly depends on the increase in the proportion of wind power photovoltaic and other power generation, and the transportation sector mainly relies on new energy vehicles to replace traditional oil vehicles. Therefore, new energy vehicles have embarked on the road of development, and the importance of their main components, power batteries, has gradually increased.

(1) Power battery industry. In recent years, due to the promotion of national policies, the power battery industry technology research and development has been effective, the popularity of surrounding supporting facilities and the improvement of the upstream and downstream industrial chains, the number of new energy vehicles has shown explosive growth in the world, driving the rapid development of the power battery industry. In 2021, the sales volume of new energy vehicles in China will increase by 1.6 times compared with 2020, with sales reaching 3.52 million units, and the electrification ratio of China's automobiles will be 13%.

(2) Energy storage industry. The application of energy conservation and emission reduction in the power industry is mainly to increase the proportion of wind power and photovoltaic power generation, and in recent years, clean energy power plants such as wind power and photovoltaic power have continued to increase. Since clean energy power generation is not very stable, its power will be stored in energy storage products to facilitate continuous and stable output when used, so that clean energy can be widely used. In 2021, 93GW of new wind power capacity was added globally, an increase of 13% compared with 2020, and 133GW of new installed capacity of photovoltaic power generation, an increase of 19% compared with 2020. With the promulgation of national support policies, the development of energy storage product group safety and service life has been improved, and the market potential of the energy storage industry in the future is huge.

(3) Battery materials and battery recycling. With the increasing sales of power batteries, the demand for raw materials is also increasing, and the power battery industry is often restricted by the battery raw materials industry. In order to solve the supply of raw materials, battery companies often purchase their own mineral resources to achieve material self-sufficiency. Another way to obtain raw materials is to recycle batteries, with the increase in the use of new energy vehicles and the progress of battery recycling technology, in the context of national policies to promote battery recycling, the battery recycling industry is gradually standardized. In the

future, there will be more and more scrapped batteries, and the re-extraction of raw materials from recycled batteries will become an important channel for battery manufacturers to obtain battery materials.

2.5.2. Business prospects

The previous part made a detailed analysis of the overall development prospects of the power battery industry, and it can be seen that the future development prospects of the power battery industry are relatively good, and Xinwangda, which is the main research object of this article, has performed poorly in the industry, and its development prospects will be? The following will be an in-depth discussion of sunwoda's corporate development prospects from its corporate strategy perspective and financial perspective. sunwoda has begun to lay out the power battery industry in the past two years, most of the power battery projects are currently in the early development stage, most of the production lines of the base are still in the stage of installation and commissioning, trial production and ramp-up, and the production capacity has not been released, and the scale effect cannot be exerted, especially the development cycle of overseas customers is long, and the early R&D investment is large; With the gradual mass production of high-quality projects of the company's high-quality customers and the gradual release of production capacity, it is believed that the company's performance will continue to improve.

In the financial analysis, through the analysis of solvency, profitability, operation ability and growth of sunwoda's annual financial statements in the past four years, it can be seen that sunwoda's financial statement level Since 2023, due to the layout of the power battery industry, a large amount of sunwoda's funds have been used for fixed assets and projects under construction, which has indirectly led to a decline in the company's profitability, but with the establishment of the power battery industry, it will bring more profits to sunwoda. sunwoda's debt-to-asset ratio is 60.28%, the equity multiplier is 2.517, and the equity ratio is 1.517, which indicates that the company's overall solvency remains stable and its performance in controlling financial risks is sound. sunwoda still has the ability to develop and market prospects in the battery industry.

3. Sunwoda's Problems and Suggestions

In the above article, under the framework of Harvard analysis, a comprehensive analysis of sunwoda's financial situation has been conducted, and it can be seen that sunwoda has growth and certain development prospects, but also found practical problems such as low profitability. Based on the previous analysis, this section will identify the problems existing in the current development of sunwoda and put forward reference suggestions.

3.1. Sunwoda's Problems

(1) Changes in the macro environment.

At present, the demand for consumer batteries at home and abroad is decreasing, and the shipments of products such as mobile phones are decreasing. If the demand for consumer batteries continues to decline in the future, it may affect the overall business operation and financial condition.

(2) The problem of intensified competition in the battery industry.

With the rapid development of new energy vehicles in

recent years, the market prospect of the new energy vehicle industry is good, and the existing power battery companies such as BYD, LG Chem and CALB continue to expand the industrial scale, and the competition with sunwoda in the domestic market is becoming increasingly fierce.

(3) The gradual decline of gross profit margin.

At present, the field of new energy vehicles and the power battery industry has become the forefront of profitability, the industry competition in the power battery industry has intensified, sunwoda as a new power battery enterprise, has not yet completed the mature layout of the power battery industry, the early investment is huge and the profit is very small, resulting in the profitability of sunwoda In constant decline.

3.2. Recommendations

Sunwoda should implement strategic gathering and actively embrace national strategic opportunities. Guided by the "Four Modernizations" strategy of globalization, digitalization, intelligence, and greening, we will accelerate the pace of going overseas, build a lighthouse factory, strengthen technological innovation, focus on brand promotion, and deepen ESG practices, so as to achieve sustainable growth of the company, and contribute to actively promoting the green transformation of the global energy structure and creating a zero-carbon future. Specifically, it revolves around the following two aspects:

(1) Product and business development.

a. Consumer batteries: continue to maintain a good cooperative relationship with customers, keep up with customer needs and market trends, actively deploy overseas, continuously consolidate market share and self-supply rate of its own battery cells, and further enhance the company's market share and product profit margin.

b. Electric vehicle batteries: further deepen the implementation of the power battery "the whole industry chain is deeply involved in cultivating comprehensive competitiveness, the whole region strategic layout, the establishment of strategic customer resources, the whole life cycle quality management to consolidate the foundation of sustainable management", the comprehensive layout of raw materials and mineral resources in the upstream of the industrial chain, reduce the impact of raw material price fluctuations, ensure the company's sustainable and stable production, and realize the profitability of the power battery industry as soon as possible.

c. Energy storage system: We will continue to rely on our deep technical accumulation and precise strategic layout to further deepen our full-scenario solutions and help the efficient development of the energy storage industry.

(2) According to the company's strategy and business development needs.

a. Further strengthen human resources, improve the human resources management system, and further enhance the company's sustainable development ability.

b. Continue to increase the research and development of consumer cells, power and energy storage cells, battery system BMS, and other new products, new materials and other products and technologies in the new energy industry chain, and strengthen cooperation with customers in the joint research and development of new products, enhance the company's independent innovation capabilities, strengthen the deep binding with customers, and continue to expand more high-quality customers; Continue to build and optimize

the R&D management system and platform, and strengthen the training of core technical personnel and technical management talents. Strengthen the implementation and supervision of the R&D process to improve the quality and efficiency of R&D.

c. The layout has fully moved from "informatization" to "digitalization", becoming a leader in digitalization and intelligence in the new energy industry, shouldering the mission of "digital intelligence empowering business innovation and helping enterprises achieve operational excellence", adhering to the values of "professionalism, innovation, service, struggle, pragmatism and collaboration", and accelerating the construction of platform-based headquarters with digitalization.

Acknowledgment

High-quality Curriculum Construction Project of Sichuan University of Science & Engineering (No.YZ202107).

References

- [1] Chen Xiangyun. Exploration of the application of financial analysis in enterprise operation and management [J]. Accountants, 2022.
- [2] Zhang Hanqing. Financial Analysis of Power Battery Enterprises under the Harvard Analysis Framework: A Case Study of EVE Energy Co., Ltd. [J]. Business Accounting, 2021.
- [3] Xie meng. Financial analysis of BYD Co., Ltd. based on Harvard analytical framework [D]. Jiangsu University of Science and Technology, 2021.
- [4] Lu Lin. Contemporary Ampere Technology Co., Ltd. Financial Analysis under the Harvard Analytical Framework [D]. Jiangsu: Soochow University, 2019.
- [5] Wang Xu. Financial analysis of company Z based on Harvard analytical framework [D]. Luoyang: Henan University of Science and Technology, 2019.