

Financial analysis of Bright Dairy based on Harvard Analysis framework

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Abstract: With the continuous improvement of residents' income level, the development potential of dairy products market is huge. Bright Dairy is a dairy company with a century-old operating history. This paper uses the Harvard analysis framework to analyze the strategic choice, accounting quality and financial indicators of Bright Dairy from 2017 to 2021, and forecasts the prospects of Bright Dairy combined with the conclusions of the first three levels. The study found that Bright Dairy has poor performance in terms of debt paying ability, operation ability and profitability, and then proposed development countermeasures such as strengthening market development and asset management.

Keywords: Harvard analysis framework Bright Dairy financial analysis.

1. Introduction

With the arrival of the "three-child" policy, as well as the development of live delivery and express logistics, dairy enterprises have brought good development opportunities. As one of the pioneers in the domestic dairy industry, Bright Dairy is also facing the urgent problem of how to develop better under the fierce market environment. Traditional financial analysis methods have limitations such as ignoring non-financial indicators, which can no longer meet the needs of enterprise analysis[1]. Using Harvard frame structure, this paper analyzes Bright Dairy from four dimensions of strategy, accounting, finance and prospect[2]. In this paper, non-financial data is fully considered and the company's development is analyzed from the perspective of the whole, hoping to evaluate the problems in the development process more objectively and accurately[3], and to promote the development of the company to find out good countermeasures.

2. Current Situation of Dairy Industry and Bright Dairy Company

China has a large output of dairy products, with the total output of dairy products ranking third in the world in 2022. With the continuous improvement of residents' disposable income and the development of urbanization, the per capita consumption of dairy products continues to rise, showing a trend of diversification of demand.

In 2000, Bright Dairy was listed on the A-share market of Shanghai Securities Exchange. The company's business has developed extensively, including the research and development of dairy products, ranching and other businesses. Its products include fresh milk, normal temperature yogurt, lactobacillus drinks, milk powder, cheese and so on. It has a large number of product lines, such as fresh milk represented by "Youbei", mid-range normal temperature milk represented by "You+" series, and star products - Moselian yogurt, etc.

3. Comprehensive Financial Analysis of Bright Dairy Under the Framework of Harvard

3.1. Strategic Analysis

SWOT analysis is used to analyze Bright Dairy's strengths, weaknesses, opportunities and threats one by one, understand the current main development strategies of Bright Dairy and identify strategic positioning [4].

(1) Advantage analysis

① High quality raw milk base. Guangming is one of the largest animal husbandry companies in China with a long history of dairy farming.

② Digital transformation of sales channels. In 2018, Bright Dairy reached cooperation with Ali Cloud, and built a dedicated milk delivery "follow one's heart" platform on its basis, opening a new retail channel.

③ High visibility. As the first listed dairy company in China, Bright Dairy owns a series of well-known brands such as "Moslean" and "Youbei".

(2) Analysis of disadvantages

① Brand influence regionalization. Guangming's sales market is confined to eastern China, mainly Shanghai. Due to its main low-temperature pasteurized liquid milk, fresh-keeping time is short and transportation conditions are strict, which limits the expansion of its sales scope.

② The cost is high. Currently, Guangming's overall strategy is to develop high-end fresh milk. Low temperature pasteurized liquid milk has high requirements on the source, preservation and transportation of milk, which requires a large amount of investment and great pressure on cost control.

③ The product image is negatively affected. In recent years, the rapid expansion and acquisition of Guangming Group, some of the local branches in dairy quality management, milk label recovery, industry manipulation and other aspects of the lack of standards, the regulatory authorities named.

(3) Opportunity analysis

① Digital sales channels

With the rapid development of the Internet and e-commerce, the marketing center needs to use new marketing concepts, actively integrate network resources, and comprehensively create a new multi-channel marketing

model.

②Increasing demand for dairy products

The arrival of "three-child policy", the change of residents' health consciousness, the improvement of national consumption level, all stimulate the development of Chinese dairy market.

③Policy Support

A series of policies to promote the revitalization of the dairy industry, the screening of a large number of "branded powder" in the industry, and the accelerated cleaning up of small farms have made Bright Dairy's high-quality farms a scarce resource.

(4) Threat analysis

①Fierce competition in the industry

Industry giants Mengniu and Yili began to enter the low-temperature fresh milk field, which is the focus of Bright Dairy. Coupled with the development of we-media, local dairy brands took advantage of this to seize the local consumer market.

②Abundant alternatives

Some people turn to plant-based protein products because of lactose intolerance. With the improvement of technological maturity, taste and flavor of plant protein drinks are more and more close to the public, occupying a certain market share.

Table 1. SWOT analysis model

SO: active expansion model Play to strengths and take advantage of opportunities	WO: Steady growth type Fix weaknesses and take advantage of opportunities
ST: Effective defensives Play to strengths and reduce threats	WT: Shrink type Overcome weaknesses and reduce threats

Based on the above analysis, this paper believes that Bright Dairy has adopted SO strategy at present, made full use of its advantages such as brand awareness, sales channels and high-quality pastures, developed the national market, and actively increased its market share, so that its profit can be better guaranteed.

3.2. Accounting analysis

From the perspective of main assets of Bright Dairy from 2017 to 2021, fixed assets, inventory and accounts receivable account for more than 50% in total, so these three items are determined as key items of accounting analysis[5].

3.2.1. Analysis of fixed assets

As can be seen from Table 2, the original book value of fixed assets of Bright Dairy increased year by year, indicating the gradual expansion of the company's operation scale. In 2019, the company acquired a Milk shed and Yimin Food Factory, and built a new production line of lactoferrin products for New Zealand Shinwright Company, so the fixed assets increased significantly during this period[5]. The decline in fixed assets as a percentage of total assets in 2020 and 2021 was due to the company's disposal of some production line equipment due to the impact of the COVID-19 pandemic. The accounting information faithfully reflects the actual changes in the company's fixed assets.

Table 2. Fixed assets of Bright Dairy from 2017 to 2021

Project	2017	2018	2019	2020	2021
Original value of fixed assets (Million Yuan)	96.19	101.95	123.86	136.11	138.05
Accumulated depreciation (Billion Yuan)	35.13	41.31	45.84	50.31	55.41
Reserve for impairment of fixed assets (Billion Yuan)	0.53	1.31	2.11	2.01	1.98
Book value of fixed assets (Billion Yuan)	60.53	59.33	75.91	83.79	80.67
Total assets (Billion Yuan)	169.12	179.34	176.37	201.67	234.50
The proportion of fixed assets in total assets (%)	58.16	56.85	61.29	41.26	34.40

(Data source: Bright Dairy Annual Report)

3.2.2. Inventory analysis

It can be seen from Table 3 that the decline in the number of finished products produced by Bright Dairy in 2021 is due to the loss of its overseas subsidiary, Sinwright, and the company began to reduce the number of finished products produced by Sinwright in June 2021. On the other hand, in the

past five years, the reserve for inventory declines has been on the rise, because the country has strengthened the supervision of milk source quality in recent years, which makes the price of milk purchased by the company from dairy farmers rise, so the reserve for inventory declines has been increasing year by year. The accounting information of inventory is credible.

Table 3. Inventory related information of Bright Dairy from 2017 to 2021 (unit: Billion Yuan)

Project	2017	2018	2019	2020	2021
Book balance of inventory	19.10	21.52	24.44	28.62	32.20
Finished product	11.33	13.59	15.38	18.13	16.42
Reserve for inventory declines	0.88	1.20	1.37	1.03	1.05
Book value of inventory	18.22	20.32	23.07	28.83	31.15

(Data source: Bright Dairy Annual Report)

3.2.3. Accounts receivable analysis

According to Table 4, the accounts receivable turnover rate is on the rise as a whole, which reflects that Bright Dairy has

achieved good results in the management of accounts receivable in recent years. The reason is that Bright Dairy has adopted strict credit policies to control risk exposure, which

is faithfully reflected in the accounts receivable accounting information.

Table 4. Analysis table of Bright Dairy's accounts receivable quality from 2017 to 2021

Project	2017	2018	2019	2020	2021
Accounts receivable (Billion Yuan)	18.98	16.44	15.98	18.16	19.14
Accounts receivable turnover ratio (times)	12.33	11.95	13.92	14.78	15.66
Days of accounts receivable turnover (days)	29.20	30.13	25.87	24.36	22.99

(Data source: Bright Dairy Annual Report)

3.3. Financial analysis

The financial analysis of an enterprise is to evaluate the debt paying, operation, profitability and growth ability of an enterprise by integrating the relevant data of the three financial statements[6], is the key content of Harvard framework. In this section, Mengniu Dairy and Yili Dairy are selected as samples to carry out horizontal comparative analysis with Bright Dairy.

3.3.1. Analysis of debt paying ability

As can be seen from Table 5, the current ratio of Bright Dairy rose slowly to 1.06 in the past five years, and the quick ratio fluctuated basically between 0.6 and 0.7. According to the general experience, the current ratio is generally the most

appropriate, the quick ratio is generally the most appropriate, and Bright Dairy is obviously lower than such a general standard. Compared with Mengniu Dairy and Yili Stock, the current ratio and quick ratio of Bright Dairy are lower on the whole, and the short-term debt paying ability is weaker. Generally, the asset-liability ratio of an enterprise is between 40% and 60%, which is appropriate. The overall asset-liability ratio of Bright Dairy is within a reasonable range, but at a higher level among the three enterprises, indicating that the long-term solvency of Bright Dairy is relatively weaker. To sum up, the solvency of Bright Dairy has gradually improved, but it is weaker than the dominant enterprises in the industry, and there are certain financial risks.

Table 5. Partial solvency indicators of the three companies from 2017 to 2021

		2017	2018	2019	2020	2021
Current ratio	Bright Dairy	0.87	0.87	0.88	1.00	1.06
	Mengniu Dairy	1.15	1.19	1.18	1.21	1.07
	Yili Shares	1.25	1.28	0.82	0.82	1.16
Quick ratio	Bright Dairy	0.68	0.67	0.60	0.68	0.70
	Mengniu Dairy	1.00	1.01	1.02	0.99	0.84
	Yili Shares	1.06	0.99	0.57	0.60	0.95
Asset-liability ratio %	Bright Dairy	59.97	62.17	57.95	55.71	55.86
	Mengniu Dairy	53.38	54.16	57.54	53.53	57.19
	Yili Shares	48.80	41.11	56.54	57.09	52.15

3.3.2. Operational capacity analysis

Operating capacity is a measure of the efficiency of asset utilization management. Table 6 shows that the inventory turnover rate of Bright Dairy in the past five years presents a V-shaped change trend, reaching the highest value of 7.98 in 2021, and the inventory realization ability has a strengthening trend. The turnover rate of accounts receivable showed a gradual increasing trend; The overall performance of total assets turnover is relatively stable. From a horizontal comparison, the inventory turnover rate and accounts

receivable turnover rate of Guangming Dairy are lower than Mengniu Dairy and Yili Stock in the past five years, which may lead to a certain inventory overstocking phenomenon and a relative disadvantage in accounts receivable management. The overall performance of total asset turnover of Bright Dairy is between those of the other two companies, and the asset utilization efficiency is better. To sum up, the operation capacity of Bright Dairy is in a relatively weak position. Managers should pay special attention to promoting inventory circulation and receivables collection, and carefully choose credit policies.

Table 6. Some operating capacity indicators of the three companies from 2017 to 2021

		2017	2018	2019	2020	2021
Inventory turnover ratio (times)	Bright Dairy	7.93	7.31	7.15	7.24	7.98
	Mengniu Dairy	11.42	11.09	10.53	8.94	9.29
	Yili Shares	9.45	9.68	8.53	8.10	9.28
Accounts receivable turnover ratio (times)	Bright Dairy	12.33	11.95	13.92	14.78	15.66
	Mengniu Dairy	24.13	24.91	24.40	23.13	24.66
	Yili Shares	82.56	70.77	57.71	53.68	56.97
Total asset turnover (times)	Bright Dairy	1.33	1.22	1.27	1.33	1.33
	Mengniu Dairy	1.12	1.11	1.09	0.96	0.99
	Yili Shares	1.54	1.64	1.67	1.47	1.28

3.3.3. Profitability analysis

Profitability reflects the level of profits obtained by the company and is the embodiment of maximization of shareholders' interests. As can be seen from Table 7, the net profit rate and sales profit rate of Bright Dairy decreased

significantly from 2020 to 2021, mainly due to the impact of the epidemic on the cross-border sales channels of key customers and the loss of its overseas subsidiary Sunlaite. The decline of gross profit margin on sales was caused by the rise in cost caused by the rise in raw milk price caused by the

novel coronavirus epidemic[2];ROE overall slightly fluctuated downward trend.Horizontal comparison, Bright Dairy three profitability indicators in the past five years are mostly in a backward position.To sum up, compared with the

other two enterprises, the profitability of Bright Dairy is deficient. The company urgently needs to enhance its core competitiveness, strengthen cost control and improve profitability.

Table 7. Some profitability indicators of the three companies from 2017 to 2021

		2017	2018	2019	2020	2021
Net profit rate on sales %	Bright Dairy	3.77	2.51	3.02	3.11	1.94
	Mengniu Dairy	3.38	4.64	5.44	4.61	5.63
	Yili Shares	8.89	8.17	7.72	7.35	7.93
Gross profit margin on sales %	Bright Dairy	33.31	33.32	31.28	25.81	18.35
	Mengniu Dairy	35.21	37.38	37.55	37.65	36.75
	Yili Shares	37.28	37.82	37.35	30.12	30.62
ROE%	Bright Dairy	11.92	6.28	9.03	10.19	9.35
	Mengniu Dairy	9.43	12.73	15.11	11.35	14.40
	Yili Shares	25.22	24.33	26.38	25.18	25.59

3.3.4. Growth Ability analysis

The analysis of Table 8 shows that the growth rate of main business income of Bright Dairy presents a rapid growth after 2018, with a good momentum.The growth rate of net profit fluctuated greatly, and there were two negative growth in 2018 and 2021. The main reason is that in 2018, the company's normal temperature products were affected by market competition and at the same time, the extra-budgetary impairment reserve of 170 million yuan was set aside, which

had a great impact on the net profit. In 2021, raw material costs rose and overseas subsidiaries lost money, and the company's gross profit margin declined.Horizontal comparison shows that the growth rate of main business revenue in 2020 and the growth rate of net profit from 2019 to 2020 are both in a leading position.To sum up, there is still room for improvement in the growth of Bright Dairy. In the process of development, we should strengthen the cultivation of profit growth points and focus on improving the ability of sustainable development of enterprises.

Table 8. Part growth capacity indicators of the three companies from 2017 to 2021

		2017	2018	2019	2020	2021
Primary business revenue growth rate %	Bright Dairy	8.99	4.71	7.52	11.98	15.59
	Mengniu Dairy	11.86	14.66	14.57	3.79	15.92
	Yili Shares	12.00	16.92	13.97	7.24	14.11
Net profit growth rate %	Bright Dairy	9.60	44.87	45.84	21.91	2.55
	Mengniu Dairy	372.63	48.60	34.91	14.14	42.57
	Yili Shares	5.99	7.31	7.67	2.08	22.98

3.4. Outlook Analysis

(1) The scale of the company is expected to continue to expand

With the support of national policies such as rural revitalization and promoting domestic consumption, the dairy industry continues to pick up.Bright Dairy has made great efforts to expand the market in recent years, and has also begun to try "cross-border" cooperation to diversify its product categories to fill in the blank areas, and its operating revenue is expected to continue to grow.However, due to the incentive of market competition, its own star products, room temperature milk and other reasons, the increase of revenue is expected to be limited.

(2) The market competitiveness needs to be greatly strengthened

Due to the impact of COVID-19, the prices of raw milk, sugar and packaging materials used in dairy production have gone up;Products lack innovation and target audiences are not clearly defined.

4. Countermeasures and Suggestions

4.1. Strengthen market development

(1)Enhance brand competitiveness.The sales market of Bright Dairy is limited to the East China region mainly in Shanghai. Through reasonable marketing promotion, such as changing product spokespersons and advertising on various

social media websites, Bright Dairy has expanded the market in the north and even the whole country.

(2)Strengthen research and development of new products.Keep up with the current trend, take the market demand as the guidance, focus on innovation, for consumers of all ages to launch strong attractive products.

4.2. Strengthen asset management

(1) Strengthen accounts receivable management.Establish customer credit rating, optimize credit sales policy, improve the professional ability of credit management personnel, incorporate the effect of accounts receivable recovery into performance assessment, mobilize the enthusiasm of relevant personnel, accelerate accounts receivable recovery, and reduce company losses.

(2) Strengthen inventory management. The stockpiled inventory can be timely reduced through offline discount sales, participation in the promotion of e-commerce platforms and other ways.Enrich sales channels, and actively maintain good cooperative relations with convenience stores.Actively build Internet celebrity products, quickly reduce inventory overstock through live streaming and other ways to promote profit growth.

References

- [1] Han Yuhua. Problems and Countermeasures of Enterprise financial Statement Analysis [J]. Finance and Accounting Learning,2021(15):100-101.

- [2] Wang Qiankun. Financial Research and Analysis of Dairy Enterprises based on Harvard Framework -- Taking Bright Dairy Industry as an example [J]. Market Modernization, 2022, No.967 (10):164-166.]
- [3] Zhu Yajie, Liu Weiling. Analysis of financial statements of L Company based on Harvard Analysis Framework [J]. China Township Enterprise Accounting,2019(05):78-80.
- [4] Zhao Canglu. Analysis on the development status of Xizang Pharmaceutical Industry based on Harvard Framework [J]. Industrial Innovation Research,2022(16):116-118.
- [5] Wang Jifeng. Financial Comprehensive Analysis of Bright Dairy Industry based on Harvard Analysis Framework [D]. Qingdao University of Science and Technology,2020.
- [6] pan Bi bright. WH at harvard analysis within the framework of the company's financial analysis [J]. Circulation of the national economy, 2022, (24) : 163-165.