

# ***Research on the Financial Problems and Optimization Strategies of Dongxu Optoelectronics***

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**Abstract:** Financial management runs through the whole process of enterprise production and operation, involves every economic activity, and has a close relationship with enterprise cost expenditure, profit distribution and so on. Based on the financial status of Dongxu Optoelectronic Company, this paper makes an in-depth discussion on the main problems existing in the company's financial analysis through the collation and analysis of its various data, and puts forward targeted optimization, so as to provide some theoretical support for the improvement of the quality of the enterprise's financial report analysis, and improve the level and efficiency of the enterprise's financial management.

**Keywords:** financial analysis, optimization strategy, enterprise financial management

## **1. Introduction**

Financial analysis is an economic management activity that analyzes and evaluates the profitability, operating capacity, debt-paying capacity, and growth capacity of economic organizations such as enterprises in the past and present related to financing activities, investment activities, business activities, and distribution activities by using a series of specialized analytical techniques and methods based on accounting and statement data and other relevant information. This paper uses the method of financial statement analysis to analyze the relevant data of Dongxu Optoelectronics Company and puts forward constructive suggestions for the relevant conclusions in order to be beneficial to the future development of the company.

## **2. The General Situation of Dongxu Optoelectronics**

Dongxu Optoelectronics Technology Co., LTD. (hereinafter referred to as Dongxu Optoelectronics) was founded in 1992. Dongxu Optoelectronics was listed in Shenzhen Stock Exchange (000413) in 1996. Dongxu Optoelectronics has grown into a large high-tech company mainly engaged in LCD (liquid crystal display) substrate equipment manufacturing. At present, Dongxu Optoelectronics has become one of the largest manufacturers of LCD glass substrate and module products in China. It is the only professional manufacture of LCD panel industry in our country with independent intellectual property rights and international first-class technology level. At the same time, Dongxu Optoelectronics is a major supplier of carbon matrix composite materials in the world, mainly

engaged in the research and development, production and sales of graphene, sapphire, silicon carbide and other silicon materials.

Dongxu Optoelectronics is also engaged in the research and development, production and sales of commercial vehicles. At present, it has an annual production capacity of more than 100,000 various commercial vehicles, and is one of the few comprehensive commercial vehicle manufacturing companies in China. Dongxu Blue Sky, a subsidiary of Dongxu Group, is a comprehensive service company for environmental protection and new energy. Its main business is new energy and environmental protection. It is committed to providing multi-energy complementary, distribution, sales, cold and heat combined intelligent new energy, and all-round technical support for ecological environment governance. In recent years, Dongxu Optoelectronics has continued to promote technological innovation and product upgrading in the field of optoelectronics, and strengthened the expansion of the international market. At the same time, the company has also actively fulfilled its corporate social responsibility and promoted sustainable development, which has won recognition and support from all walks of life.

### 3. Analysis of Financial Indicators of Dongxu Optoelectronics

#### 3.1. Analysis of Debt Repayment Ability

Table 1: Short-term debt repayment.

Project name		Year			
		2016	2017	2018	2019
Liquidity ratio	Dongxu Optoelectronic	3.81	2.25	1.67	1.36
	Industry	3.16	3.05	2.60	3.10
Quick ratio	Dongxu Optoelectronic	2.27	3.51	1.54	1.23
	Industry	2.67	2.54	2.14	2.64

From the perspective of short-term debt repayment , under normal circumstances, the company's liquidity ratio should be 2:1, while the quick ratio is 1:1. As shown in Table 1, the current ratio and quick ratio of Dongxu Optoelectronics are lower than the industry average, except for 2016. This means that Dongxu's short-term debt repayment ability is lower than the industry average, that is, Dongxu's cash flow is not good.

The current assets of Dongxu Optoelectronics accounted for a considerable proportion of the total assets, which were above 60% in each of the three years, mainly cash and receivables, which indicated that the company's assets were highly liquid. From 2016 to 2019, the company's cash holding ratio gradually decreased, from 55% to 27%. The ratio of accounts receivable increased gradually, from 3.5% to 19.8%, while the liquidity of assets also decreased. However, as cash holdings are unfavorable to the long-term development of the company, the capital occupation degree of the company is more reasonable than before, and the proportion of liabilities and shareholders' equity in the company's equity does not change much. Among them, the proportion of negative current value increases, and the proportion of non-current liabilities decreases, which means that the debt repayment pressure increases in the short term. Short-term solvency has decreased.

Table 2: Long-term debt repayment.

Project name		Year			
		2016	2017	2018	2019
Asset-liability ratio	Dongxu Optoelectronic	50.73	52.64	53.95	53.49
	Industry	36.44	38.86	44.74	44.21

From Table 2, the asset-liability ratio of Dongxu Optoelectronics from 2016 to 2019 was 50.73%, 52.64%, 53.95%, and 53.49%, exceeding the industry average for four consecutive years. On the one hand, for a company, the lower the asset-liability ratio is, the less its capital is used. For investors, the high asset-liability ratio of Dongxu Optoelectronics is a sign of its weak solvency. However, Dongxu's asset-liability ratio has exceeded the industry average in four years, and if it continues like this, it will increase the company's financing costs.

From 2016 to 2019, the proportion of current assets of the company increased, but it was still dominated by current assets on the whole. Current assets have high liquidity, which is conducive to the company's capital turnover, but unfavorable to the company's long-term development. Increasing the proportion of non-current assets is conducive to the implementation of the company's long-term strategy. From 2016 to 2019, the proportion of the company's total debt in the total equity increased year by year, and exceeded 50%, which means that the company's long-term debt repayment ability has been reduced. A ratio of more than 50% means that more than half of the company's assets will be used to repay debt, which increases the company's risk and is unfavorable to financing [1].

In order to solve this problem, Dongxu Optoelectronics can take the following measures.

By optimizing its debt structure, the company can reduce the proportion of high interest rates and short-term debt, increase the proportion of long-term stable debt, reduce the overall debt cost, and improve its solvency.

The company can improve its profitability and increase cash inflow by increasing the market share of its products, expanding into new market areas and reducing production costs, so as to improve its solvency.

The company can enhance its internal management to improve operational efficiency, reduce costs and losses, optimize capital flow and avoid over-reliance on short-term liabilities, thus improving its solvency.

If the company's debt is too large, it can consider seeking external capital support, such as issuing bonds and absorbing investment, so as to increase cash inflow and improve debt paying ability.

### 3.2. Profit Analysis

Table 3: Gross profit margin and net profit margin.

Project name		Year			
		2016	2017	2018	2019
Gross profit margin	Dongxu Optoelectronic	30.14	20.84	17.75	15.76
	Industry	26.58	27.28	25.34	26.01
Net profit margin	Dongxu Optoelectronic	18.99	11.18	8.04	-8.89
	Industry	8.10	5.46	-4.11	-17.55

As can be seen from Table 3, the sales gross profit of Dongxu Optoelectronics showed an obvious downward trend from 2016 to 2019, and was lower than the average level of the industry. Four consecutive years of declining margins on sales suggest that the industry is very competitive and that there will be a price war between companies and firms. In addition, when the index is below the industry level for four consecutive years, it indicates that the company's profit level is relatively low compared with other companies in the same industry. The revenue of Dongxu Optoelectronics has shown a relatively stable growth trend in recent years. In 2019, 2020, and the first three quarters of 2021, the operating revenue was 6.929 billion yuan, 7.881 billion yuan, and 9.726 billion yuan, respectively, which is a certain improvement compared with previous years.

Table 4: Cost expense ratio and cost utilization ratio.

Project name		Year			
		2016	2017	2018	2019
Cost expense ratio	Dongxu Optoelectronic	0.82	0.88	0.86	0.95
	Industry	0.96	0.97	0.97	0.97
Cost utilization ratio	Dongxu Optoelectronic	23.20	12.65	9.11	-9.16
	Industry	12.58	11.13	8.10	9.05

It can be seen from Table 4 that the cost-expense ratio of Dongxu Optoelectronics from 2016 to 2019 is lower than the industry average, which indicates that Dongxu Optoelectronics is higher than the industry average in cost control. Except for 2019, Dongxu's cost and expense margin exceeded the industry average in all the other three years, indicating that Dongxu can create higher profits for the company relative to its costs. Dongxu Optoelectronics' gross margin has generally shown a downward trend, with gross margin of 18.15% in 2019, 14.53% in 2020 and 11.39% in the first three quarters of 2021, respectively. This may be due to the expansion of the company's business scale, intensified market competition and downward pressure on the industry.

In general, over the three years, the company's return on total assets increased from 2.79 to 3.13, indicating that the company's asset utilization efficiency has improved, and the company's overall earnings and operation management level have improved [2]. The company's net profit has been declining every year, from 3.46 to 3.24. Through the analysis of the profitability of Dongxu Optoelectronics in the last three years, it is found that the reason for the difference is the decline of non-operating income in the last three years. The profit margin on sales is the initial profit level of the firm. The lower the gross profit, the higher the proportion of operating expenses in operating income, the weaker the profitability of operating activities. From 2016 to 2019, the gross profit margin and net profit of Dongxu Optoelectronics decreased year by year, reflecting the reduced competitiveness of the company in terms of brand, quality and price in the market. Based on the analysis of dupont, the return on assets, return on net assets and return on net assets of Dongxu Optoelectronics increased during the period from 2016 to 2019, and the profitability of the company was improved.

### 3.3. Analysis of Operational Capacity

Dongxu Photoelectric's operating capacity is generally better. The company has accumulated rich experience and resources in supply chain management, production technology, and other aspects and constantly carries out technological innovation and optimization to improve production efficiency

and product quality, which is conducive to improving the company's market competitiveness and profitability.

From 2016 to 2019, the company's inventory turnover speed was faster, indicating that the shorter the inventory stays in the company, the less capital is occupied, and the higher the company's operating level is. The turnover ratio of accounts receivable decreased from 5.12 to 2.53, indicating that the current ratio of accounts receivable decreased from 5.12 to 2.53 in a fiscal year. The turnover speed slowed down, and the operation capacity of accounts receivable also decreased. Total asset turnover increases, and when operating income is fixed, the size of total assets occupied by the company decreases. From the perspective of the turnover of current assets, the current ratio of current assets has increased, indicating that the turnover speed of current assets, the efficiency of use and the quality of asset management have been improved. From the perspective of the turnover rate of shareholders' equity, it is increasing every year, which indicates that the company can effectively improve the company's financial statements by using investors' funds for investment. On the whole, the overall operating capacity is good, but the accounts receivable turnover ratio has decreased. The management of accounts receivable should be strengthened, and the accounts receivable with longer collection age should be paid attention to.

### 3.4. Analysis of Development Capacity

The development capacity index is based on the "(current-benchmark)/benchmark" formula. The growth rate of total assets of Dongxu Optoelectronics is positive in three years, but the figure is decreasing year by year, which indicates that the asset scale of Dongxu Optoelectronics is expanding continuously in the past three years, and the annual decline rate is also gradually slowing down. The revenue growth rate in 2017 "exploded" and then fell back to a stable level. Meanwhile, the company's net profit also maintained a stable growth trend, thanks to a large number of acquisitions and strategic partnerships from 2016 to 2017. Overall, the company's development momentum is good. The growth rate of shareholders' equity is positive, and its change trend tends to be consistent with the growth rate of total assets, while the growth momentum of shareholders' equity weakens, which is because of the reason of "asset-liability + shareholders' equity", indicating that the growth of the company's asset scale mainly depends on the change of shareholders' equity, and the change trend is consistent, indicating that the capital structure is relatively stable. Overall, the development of Dongxu Optoelectronic is OK, the pace of development is relatively fast, the overall momentum of development is good.

As one of the leading enterprises in China's optoelectronics industry, Dongxu Optoelectronics has a broad market prospect and development potential in the future. This paper mainly analyzes its future development ability from the following aspects.

Dongxu Optoelectronics has always maintained high investment and enthusiasm in core technology and product research and development, and has also strengthened cooperation and exchanges with domestic and foreign research institutions and universities to continuously promote technological innovation and new product development, providing good technical support and innovation power for the future development of the enterprise.

Dongxu Optoelectronics has a strong market expansion ability. At present, the company has a wide range of customers and market shares at home and abroad, and is also actively expanding emerging markets and fields. With the continuous expansion of the optoelectronics market and the rapid development of intelligence, Dongxu Optoelectronics is expected to continue to expand its market share and enhance its market competitiveness in the future.

Dongxu Optoelectronics also has certain advantages in the internal management and operation of the enterprise, and continuously promotes management innovation and optimization, improves

efficiency and quality, and strengthens risk management and compliance, providing a strong guarantee and support for the sustainable development of the enterprise.

As a national strategic emerging industry, the optoelectronic industry has always been strongly supported and guided by national policies. In the future, with the state's continuous support and encouragement for new energy, intelligent manufacturing, and other fields, Dongxu Optoelectronics is expected to achieve more rapid development driven by policy.

## **4. Financial Problems and Optimization Strategies**

### **4.1. Analysis of Existing Problems**

Based on the analysis of the financial risks of Dongxu Optoelectronic's business activities, we can see that the accounts receivable of Dongxu Optoelectronic Company is increasing year by year, and there is a certain financial risk due to the excessive accounts receivable, so the management of accounts receivable should be strengthened to prevent the occurrence of huge bad debt losses and the resulting financial risks.

In addition, in terms of cash flow issues, the effectiveness of capital utilization should be fully considered when the enterprise has sufficient inventory capital. When the utilization efficiency of capital is not high, it can be improved by increasing the use of capital. In the case that enterprises lack inventory capital, they must alleviate the shortage of funds by raising funds. If there is not enough capital reserve, then the company's capital will be in trouble. Once there is a financial risk, then the company's capital will be in trouble. From a financial point of view, the major issues facing Dongxu Radio and Television are as follows.

By the middle of 2021, the total debt of Dongxu Optoelectronics had reached 27.43 billion yuan, and the debt ratio had reached 63.2%, exceeding the average level of the industry. A high debt ratio will limit the company's future financing and investment capacity and increase its financial risk.

Dongxu Optoelectronics' operating cash flow position has been relatively tight. From 2018 to 2020, the company's free cash flow was negative, and in the middle of 2021, the company's net cash flow from operating activities was also negative. This may restrict firms from making more R&D investments and market expansion.

In the middle of 2021, the inventory turnover of Dongxu Optoelectronics decreased to 3.46 times, lower than the average level of the industry, indicating that the company's inventory management had problems, which may lead to excessive capital occupation of the company and affect its profitability.

Between 2019 and 2020, the net profit of Dongxu Optoelectronics continued to decline, with the net profit margin falling from 10.96% to 7.14%. In the first half of 2021, the net profit decreased by 56.6% year-on-year. This may be due to the increased market competitive pressure faced by the company, rising costs and other reasons.

As of the middle of 2021, the total bank borrowings of Dongxu Optoelectronics amounted to RMB7.612 billion, accounting for 27.7% of the total liabilities. High bank loans will increase the company's cost of capital and financial risks, and may also affect the company's credit and reputation if they cannot be repaid.

### **4.2. Optimization Strategy**

Enterprises should not only actively put forward corresponding solutions to existing problems according to their own operating conditions and specific conditions of the market, improve the capital management system, strengthen the construction of capital management information, ensure the normal and stable operation of enterprises, and enhance the core market competitiveness of enterprises [3].



In addition, the company can expand financing channels and reduce financing costs by strengthening cooperation with financial institutions. Optimize asset structure, accelerate asset turnover, reduce asset occupancy rate. For example, reduce inventory, improve asset utilization, actively promote idle assets disposal, etc. In addition, the company can actively promote asset securitization, financial leasing and other ways to reduce financing costs and improve financing efficiency [4].

Therefore, state-owned enterprises need to combine the actual situation, analyze and judge the financial data, and then integrate it into the strategic financial statements, to ensure that the analysis results match the strategic objectives, improve the scientific nature of strategic objectives, in order to promote the steady development of state-owned enterprises [5].

First of all, it is necessary to formulate reasonable development strategies according to the actual situation of Dongxu Optoelectronics. In 2014, Dongxu Optoelectronics was successfully acquired and renamed Dongxu Optoelectronics, which developed from a single industry to a diversified one, but in the process of development, due to the lack of scientific strategic layout, it led to rapid development and also brought great risks to the enterprise [6].

Second, in the face of operational investment risks, we should first have a standard evaluation system. The classification of suppliers and suppliers should be based on factors such as the operation of suppliers and sellers. According to suppliers and suppliers' past performance, Dongxu Optoelectronics is divided into four levels: excellent, excellent, medium and poor. For suppliers and sellers of different levels, different solutions are adopted. Second, we normalize the paradigm of contracts. Because Dongxu Optoelectronics has many projects, the company's situation is different in different projects. Standardizing the contract paradigm not only standardizes contracts but also reduces the workload of examiners.

Third, to ensure the vitality and financial flow of Dongxu Optoelectronics. In terms of operating activities, net cash generated from operating activities was -3.013 billion yuan, representing a decrease of 112% as compared with 390 million yuan in 2018, and the net cash flow from operating activities was negative; In terms of investment activities, the net inflow of investment activities was -10.955 billion yuan, representing a decrease of 64.89% as compared with -6.644 billion yuan in 2018; In terms of financing activities, the net cash outflow scale of financing activities was 500 million yuan, up 87% from -3.9 billion yuan in 2018. On the whole, the cash flow of operating activities declined significantly, which greatly affected the inflow of monetary funds.

## 5. Conclusion

Through the above optimization strategies, Dongxu Optoelectric can effectively avoid the existing risks and has a clear development goal for the future. In a word, enterprises should not only operate according to their own operating conditions and the specific situation of the market, but also actively put forward corresponding countermeasures to ensure the normal and stable operation of enterprises. We can use the data analyzed in these financial statements to effectively evaluate the operating performance and financial situation of the company so as to improve the financial management mode of state-owned enterprises and their market competitiveness.

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