Analysis of Retail Industry under the Background of Covid-19--Based on the Financial Statements Analysis of Walmart

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Abstract. Since the outbreak of COVID-19, the emergence of COVID-19 has brought an unprecedented blow to all industries. At the same time, it also brings great challenges to the national economy. For retail enterprises such as Walmart, the occurrence of the COVID-19 not only tested the enterprises' ability to deal with accidents, but also forced them to develop in other fields. Based on the conflict between retail enterprises and management policies of pandemic in the post-pandemic era, this paper summarizes the current changes in consumer preferences and habits. Also, this paper uses SWOT analysis model to analyze strengths, weaknesses, opportunities and threats that Walmart has encountered. In addition, this paper also analyzes Walmart's financial capability indexes in various aspects, such as solvency and profitability. Finally, according to the data obtained from the analysis, some suggestions for Walmart's development are put forward. In this kind of economic depression, Walmart, as one of the global retail giants, has also suffered a serious effect. Based on Walmart's financial statements in recent years, this paper uses the comparative analysis method to analyze Walmart's business strategy in the post-pandemic era.

Keywords: Post-pandemic era; Retail industry; Financial analysis; Comparative analysis.

1. Introduction

Since the emergence of the COVID-19 in 2020, the pandemic has had a huge impact on the retail industry. From March to April 2020, the business interruption caused by the pandemic deterred shoppers, and the retail sales in the United States plummeted by 16.4% to a record. The retail purchase report released by the United States Department of Commerce on May 15, 2020 shows that the retail sales in the past 12 months have decreased by 21.6%. It is the most serious decline since the retail data was recorded in 1992. The monthly decline in April was almost twice the record high of 8.3% a month ago. Nowadays the pandemic is repeated, which has an influence on the uncertainty of customer demand, operation and cost is particularly significant.

Walmart Inc., a global chain company, is an American enterprise in the United States. In terms of turnover, Walmart is the largest enterprise around the world. Walmart has ranked the first among the Fortune 500 companies in the world for nine consecutive years.

Due to the appearance of the pandemic in 2020, the retail industry of the United States has been hit hard. Then the subsequent inflation has led to a continuous decline in sales of Walmart.

2. Literature and Theory

2.1 Literature review

The impact of the Covid-19 on Walmart is incalculable. In December 2021, Walmart closed nearly 60 stores in the area with severe pandemic. In addition, it is worth mentioning that over 500,000 people were fired and nearly 50,000 stores have closed. It is estimated that millions of people face the possibility of leaving without pay or being dismissed.

However, even though Walmart faces various doubts, its e-commerce business has become an important engine for its development. Under the sudden pandemic in 2020, Walmart's annual e-commerce sales still increased by 37%. And in the fourth quarter of 2020, Walmart's e-commerce sales in terms of delivery and picking also grew dramatically, which have saled increasing by 35% [1].

Zupeng Yu studied the innovation of the retail industry in the post-pandemic era and found the competition and conflict in the existing industry under the impact of the COVID-19. Besides, this has also led to changes in people's consumption preferences and habits. At the same time, retail companies can make new consumption patterns based on these changes.

2.2 Theory and data

Selling consumer goods or services to clients through a variety of distribution channels in order to make a profit is known as retail. Through a lean supply chain, demand is generated by using a variety of target markets and marketing strategies to meet customers' perceived requirements and wants. A growing percentage of retailing in the 2000s takes place online with electronic payment and delivery by courier or postal mail. The final stage of the supply chain for commodities is retail. All upstream vendors contribute to the value addition of commodities, and retail clients are consumers [2].

3. Non-financial Analysis

The epidemic has seriously affected the development of the retail industry. Consumer preferences have changed dramatically in the post epidemic era. Under the impact of the pandemic, people are going out less often and staying at home for longer, and huge changes in lifestyle have led to changes in consumer spending habits, which cannot be eliminated in a short term. This paper reckons that consumer demand preferences have changed as follows in the post-pandemic era [3].

3.1 Consumers Form the Habit of Online Shopping and Come to Rely on It

Some policies under the pandemic matched the characteristics of online shopping, and online sales of fresh food and daily necessities jumped sharply. After the American state governments issued home quarantine orders in March 2020, many young consumers began to buy goods online and guide elderly consumers, which cultivated the consumption habits of elderly consumers. This behavior has further increased the number of online shoppers.

3.2 Contactless Consumption becomes a New Hotspot

The convenience and safety brought by contactless consumption have been recognized by the society. The frequency of use of contactless food pickup and contactless payment has increased, which promote the development of contactless consumption in the pandemic era. At the same time, retail companies are also aware of the importance of technological innovation and electronic services. In additionally, contactless consumption represented by contactless distribution and unmanned retail will be applied to more aspects of life.

Strengths, weaknesses, opportunities, and threats are examined using the SWOT method.

3.3 Strengths

3.3.1 Cost advantage

In purchase aspect, Walmart used the following strategy to cut expenses. Firstly, Walmart adopts central purchase system. Uniform buying should be implemented as much as feasible. Generally, for the products sold in a year, Walmart will sign a purchase agreement. Because of the huge quantity, price discount is far higher than that of its peers, forming an incomparable advantage. Third, with suppliers, Walmart has consistently maintained a cooperative relationship throughout time. Through computer networking and information exchange, suppliers may promptly schedule manufacturing and shipment after learning for the first time about Walmart's sales and inventories. With the improvement of efficiency and the reduction of suppliers' costs, Walmart can also pass on concessions to customers [4].

3.3.2 Inventory management

Before the formal acquisition, supplier management is the vital strategy management to Walmart. Walmart is able to integrate its financial performance as well as cross corporate boundaries in terms of procurement and logistical operations by putting into practice a strategic partnership operating mode, specifically integrating the production costs, technology research and development, and the management costs of suppliers into Walmart's management system. Through the database, Walmart communicates with supplier's information about all of its stores' inventories, sales, product prices, customer feedback, internal business plans, etc. As a result, these techniques lower the external market's transaction costs. At the same time, Walmart provides quick market intelligence feedback to ensure product quality and innovation pace.

3.3.3 Centralized procurement

To cut the expenses of individual packing, Walmart sells its products largely in big packages. The corporation employs computers to handle inventory and the distribution system at the same time. At the checkout counter, every item sold through the scanner is automatically entered into the computer. This signal will be sent once a predetermined amount of inventory is reduced to a predetermined quantity, allowing the store to ask the corporate office to schedule the supply of goods in advance and then send them to the closest distribution center, where the computer will schedule the delivery time and route.48 hours after the store issues the order, all the required goods will appear on the shelf. The firm is able to swiftly assess the sales position and promptly replenish the insufficient inventory thanks to such effective inventory management. In this case, goods are not out of stock and there is no overstock of inventory, which accelerates capital turnover and significantly lowers capital expenses and inventory costs.

3.4 Weaknesses

The procurement process is intricate and encompasses a wide range of disciplines, including logistics, marketing, global distribution, supplier audit, and the legal framework for international commerce. If Walmart is not careful in its procurement process, the relationship with suppliers might quickly deteriorate, which can make international buying unsuccessful. Because of these numerous unavoidable factors, so Walmart can only continuously formulate and improve its procurement plan and strategy.

3.5 Opportunities

In a contemporary culture where technology and the economy are highly developed, Walmart is able to completely understand information technology and business laws, apply electronic tools methodically, and conduct e-commerce—activities that are centered on the exchange of commodities—efficiently. Through e-commerce, Walmart is better able to gather business data from suppliers across the globe and firsthand knowledge of the global market, enabling it to swiftly modify its business operations in response to changes in market circumstances for higher advantages and improved market competitiveness. At the same time, online transactions can also significantly lower transaction costs and save a lot of money for businesses.

3.6 Threats

Particularly among international suppliers, Walmart has a reputation for being tough and scary because it maintains a hard stance and refuses to back down. As a result, whenever Walmart decides on prices, suppliers usually complain that the prices are too low. There is a potential danger that suppliers may unite and rebel due to the price, which are going to bring huge negative influence and blow to Walmart. Consequently, Walmart should constantly exchange information with suppliers in the procurement process to achieve full information sharing. In a strategic partnership, buyers and sellers go beyond pricing as their primary concern and collaborate to make improvements to their collaborative process. In order to create a win-win situation, Walmart needs to focus more on long-term, solid, and sustainable cooperation between the two parties. In additionally, to some certain extent, the business should make use of its unique capabilities to offer the right technologies to suppliers so they can change goods in a way that ensures product quality and affordable supply. Additionally, the business might work with suppliers to create new items, strengthening the supplier's position in the market.

4. Financial Analysis

The process and results of the operation and management activities of retail enterprises are reflected in their financial statements. Information from financial statements is crucial for assessing an enterprise's success.

4.1 Analysis of Short-term Solvency

The ability of an organization to pay off current liabilities with current assets, which represents the capability of an organization to pay off daily maturing debts, is referred to as short-term solvency. The business must be able to repay its debts to creditors in full in order to protect their rights, pay interest on time, and receive its principle back at maturity. And for investors, if there is an issue with the company’s short-term viability, it will prevent the company’s management team from exerting a lot of effort to raise money to pay off the debt, but also make it more difficult to finance businesses or make it more expensive to get short-term emergency financing, all of which have an impact on how profitable businesses are [5].

4.1.1 Current ratio

The ability of an enterprise's current assets to be converted into cash to cover its liabilities prior to the maturity of short-term debts is measured using the current ratio. The higher the current ratio, the greater the liquidity of enterprise assets [6]. However, the high ratio suggests that current assets take up more space, which will have an impact on the profitability and turnover effectiveness of operating funds. 2 is typically regarded as the minimal current ratio that is reasonable.

$$\text{Current ratio}=\text{Current assets} / \text{Current liabilities} \tag{1}$$

4.1.2 Quick ratio

The quick ratio is the proportion of a company's current liabilities to its quick assets. Quick assets include cash, short-term investments, notes receivable, accounts receivable, and other similar items. They are defined as the balance of current assets of a company less inventory and prepaid expenses [7].

The ratio of current obligations to fast assets is known as the quick ratio. It assesses how quickly current liabilities can be covered by an organization's current assets.

$$\text{Quick ratio} = (\text{Cash} + \text{Accounts Receivable}) / \text{Current Liabilities} = (\text{Accounts Receivable} + \text{cash Equivalents} + \text{Cash}) / (\text{Accruals} + \text{Accounts Payable} + \text{Notes Payable}) \tag{2}$$

Table 1. Short-term solvency analysis

Index	Unit	2022	2021	2020
Current assets	Millions dollar	80,070	90,067	61,806
Inventory	Millions dollar	56,511	44,949	44,435
Current ratio	Multiple	0.93	0.97	0.79
Quick ratio	Multiple	0.28	0.49	0.22

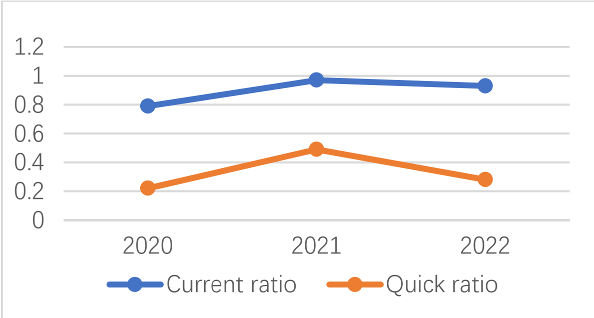

Fig. 1 Two indexes change trend in three years

Based on above chart, there is a fluctuation on amount of current assets from 2020 to 2022. Moreover, among the current assets, amounts of inventory occupies a large part of amounts of current assets, with ratios of 72.89%, 49.91% and 70.58% respectively from 2020 to 2022. The scale of creditor's rights in 2021 and 2022 is smaller than that in 2020, indicating that the creditor's rights stability is smaller. It is widespread consensused that the current ratio and quick ratio of 2 and 1 are the most appropriate for a company. However, Walmart's indexes are lower than the standard, which may be due to Walmart's operation and management. Also, the development of retail industry and the change of storage and transportation mode of goods result in current assets less than current liabilities.

4.2 Analysis of Long-term Solvency

The ability of the business to take on debt and ensure debt repayment is referred to as long-term solvency [8]. The analysis of long-term solvency is an important issue that the creditors, investors, operators and all aspects related to the enterprise pay close attention to.

4.2.1 Gearing ratio

The gearing ratio is a metric for assessing an enterprise's capacity to employ creditor-provided funding for operational purposes [9]. Concurrently, it also takes into account the security level of loans provided by creditors, which is determined by contrasting the enterprise's total liabilities and total assets.

$$\text{Gearing ratio} = \text{Total liabilities} / \text{Total assets} \tag{3}$$

4.2.2 Debt-to-equity ratio

The debt-to-equity ratio, or the proportion of equity to debt used to finance the acquisition of assets, is a gauge of a company's financial leverage. Comparing the amounts provided by shareholders and creditors, the debt-to-equity ratio shows how the two sources of funding are related [10]. The enterprise's long-term financial status will be better and creditors' rights and interests will be more secure the lower the ratio. Typically, this ratio should be lower than 1.

According to the above chart, these two indexes all show a slight downward trend. It is generally considered that 50% of the asset-liability ratio is the industry standard. And the industry standard of debt-to-equity ratio is 1. But these two ratios of Walmart are lower than the industry standard. Thus, Walmart's long-term solvency is weak.

$$\text{Debt-to-equity ratio} = \text{Total liabilities} / \text{Total equity} \tag{4}$$

Table 2. Long-term solvency analysis

Index	Unit	2022	2021	2020
Total liabilities	Millions dollar	152,969	164,938	154,943
Gearing ratio	Multiple	0.62	0.65	0.66
Debt-to-equity ratio	Multiple	1.66	1.88	1.90

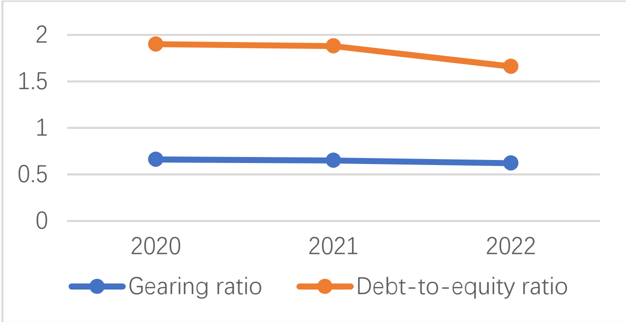

Fig. 2 Long-term indexes change trend in three years

Although the above ratios indicate that Walmart's long-term solvency is weak, Wal Mart's high debt is to support its better development under the pandemic.

4.3 Profitability Analysis

An organization's capacity to generate profits over time is referred to as profitability. As a profit-oriented organization, enterprises need to continuously reduce costs, improve output and produce competitive products, so that enterprises can obtain more profits [11].

4.3.1 Gross profit margin

The ratio of gross profit to sales revenue is known as the gross profit margin. Furthermore, The difference between revenue and the related operational costs is known as gross profit [12].

Formula: Gross Profit Margin =Gross profit margin/Sales

4.3.2 Net profit margin on sales

The ability of an enterprise to generate sales revenue during a specific time period is measured by the net profit margin on sales, which is the link between net profit and sales revenue of an enterprise [13]. This metric shows the potential for generating operating profit.

Net profit margin on sales=Net profit margin on sales/Net profit margin (5)

Table 3. Profitability analysis

Index	Unit	2022	2021	2020
Net profit	Billions dollar	13.673	13.51	14.881亿
Gross Profit Margin	Multiple	2.41	2.43	2.86

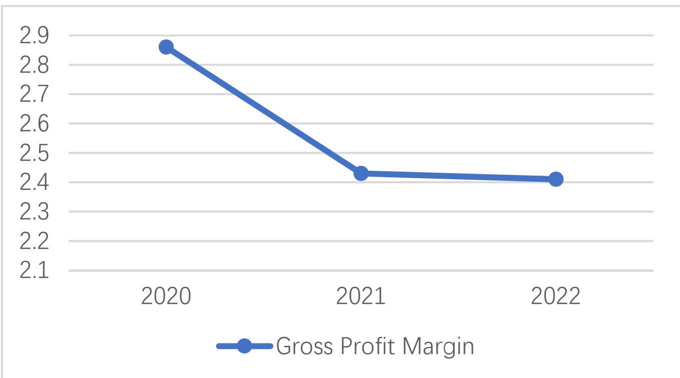

Fig. 3 Profitability indexes change trend in three years

Based on the above chart, it shows a downward trend on gross profit margin. On the contrary, the operating cost increases year by year. This demonstrates that profits of the company are declining and can only generate lower profits in the highly competitive retail sector. In addition, Walmart has also been seriously affected by the pandemic, so its current operation is not easy.

5. Conclusion and Suggestion

According to the above financial analysis, it can be found that many of Walmart's financial indexes are showing a downward trend, which also illustrates that the solvency and profitability are declining year by year under the influence of epidemic situation. The Covid-19 has a great impact on the retail industry. Even industry giants like Walmart have been hit seriously. Walmart has maintained a policy of huge investment, staged financing and radical working capital in its operations. Under such circumstances, Walmart should further pay attention to the changes in its solvency, improve its financing level, and better manage its financing. Additionally, Walmart’s operating results have decreased gradually in recent years. If Walmart want to improve the profit, it can improve its operating conditions by increasing sales revenue, reducing sales costs, and controlling operating expenses. Plus, Walmart should summarize its experience in cost management, further improve its cost control and management level. It is crucial for Walmart to maintain a steady increase in sales revenue and ensure a steady growth in profits.

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