

The Potential of New Retail Models: Financial Analysis of JD and Suning Supply Chain Management Capabilities

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Abstract. With the popularity of e-commerce and online consumption, offline sales stores have encountered a bottleneck period, and the competition in China's retail market is becoming increasingly fierce. Many retail industries are moving towards the new "online + offline" retail model. This trend represents the retail industry catching up with the digital age, merging the traditional brick-and-mortar economy with online sales channels to meet better changing consumer needs. This study combines several research results, and this paper analyzes the level of the enterprise supply chain from the five indicators of revenue growth rate, inventory turnover rate, return on assets, sales expense ratio and management cost ratio. This paper will take Jingdong and Suning as examples to analyze the characteristics of the new retail model based on the overview of the new retail model, deeply study and discuss the impact of the new retail model on the development of enterprises, and analyze the opportunities and challenges they face. Finally, targeted suggestions are put forward to promote the development of the new retail model for enterprises.

Keywords: New retail model, Supply chain management ability, Jingdong, Suning Tesco.

1. Introduction

New retail is a retail model that has emerged in recent years as a fusion of traditional retail and modern technology, aiming to provide a smarter, more efficient and convenient shopping experience. New retail pushes the boundaries of traditional retail and employs a variety of digital technologies, such as big data analytics, artificial intelligence, cloud computing and the Internet of Things, to meet the changing needs of consumers. This model focuses not only on online sales, but also on the offline brick-and-mortar experience, realizing a seamless connection between online and offline. The core features of new retail include: data-driven, consumer experience, multi-channel sales, efficient logistics and experimental sales. New retail is the future trend of the retail industry, and it has changed the way consumers shop, while providing more opportunities and challenges for retailers. As technology continues to advance, the new retail model will continue to evolve, bringing more convenience and choice to consumers [1-4].

Traditional retailers have seized this opportunity to combine online services, offline experience and modern logistics to restructure their business and transform into new retail [5]. The new retail model is a data-driven, consumer-centered, omni-channel retail model. It uses data and information technology to improve operational efficiency and transforms the core elements of retail from "people, goods and space" to "people, goods, space and time" [6].

Driven by the new retail model, China's retail pattern is developing rapidly. This paper will discuss enterprises' supply chain management ability in this context of change from the financial perspective. We use five key indicators to measure these capabilities: revenue growth rate, inventory turnover rate, return on assets, sales expense ratio, and indirect expense ratio. Our research focuses on two major Chinese companies, JD and Suning, to understand how adopting the new retail model affects their growth trajectory. We also evaluated the opportunities and challenges these enterprises face and made practical suggestions for promoting the development of new retail models in China's retail industry.

2. Case Analysis

2.1. Case Description

2.1.1 Jingdong Overview

Jingdong is an enterprise that has been involved in e-commerce since early 2004. It is positioned as a "technology and service enterprise based on supply chain" involving retail, logistics, health and business, etc. Since the new retail concept was proposed in 2016, JD has carried out a comprehensive technological transformation in 2017, vigorously promoted the new retail transformation, implemented the operation mode of combining online and offline operations, and used scientific methods. JD has become one of the leaders of the new retail enterprises.

2.1.2 Overview of Suning Tesco

Suning Tesco is an early batch of "smart retail" enterprises. Its main products are household appliances, daily necessities and other retail goods. Since the new retail concept was put forward in 2016, Suning has vigorously developed the new retail model in 2017, adhering to the scientific method of integrating online and offline sales channels. After years of guided development, Suning has become a well-known enterprise of new retail enterprises.

2.2. Analysis of the Supply Chain Management ability of JD and Suning

Previous predecessors have been studying enterprises' supply chain management ability for some time, and there is a certain consensus on profit indicators and analysis methods [7]. Wang proposed that the management's ability to measure the supply chain differs among each industry, and vertical comparison needs to be carried out. The main factors affecting the profitability of each enterprise include the difference in the main business, innovation level and management efficiency. However, the analysis of enterprise profitability indicators should also be combined with the operating net profit, return on assets and other financial indicators of enterprises [8]. Wu believes enterprise performance assessment indicators are relatively extensive and can be analyzed from the operating net profit, asset turnover rate, price / earnings ratio and other perspectives [9]. Therefore, this study gave Zhang and others to measure the optimization of supply chain management ability, and in the new retail mode, the enterprise business transaction mode change, so the study, according to the traditional indicators and other scholars after the election, the index of the analysis of supply chain management ability of new index system, include revenue growth rate, inventory turnover, return on assets, ratio of expenses to sales, and administrative expense rate [8, 10].

The revenue growth rate is calculated as follows: Increase in operating income = total operating income of this year-total operating income of last year; Operating growth rate = increase / 100% of total operating revenue last year.

The calculation formula of the inventory turnover rate is as follows. Because an enterprise's sales and logistics cost cannot obtain accurate data from the outside, the operating cost in the annual financial report is used instead of calculation: Inventory turnover rate = sales logistics cost / average inventory amount. Sales, logistics cost and operating cost

The rate of return on assets is calculated as follows: Average total assets = (total initial assets + final total assets) / 2; Return on assets = net profit / average total assets.

The calculation formula of sales expense ratio is as follows: Sales expense ratio = sales expense / operating revenue.

The management expense ratio calculation formula is as follows: Management expense ratio = management expense / operating revenue.

2.3. Analysis of Supply Chain Management Ability

The enterprise's data is obtained through the financial annual report of "Futu Niuniu" software, and the supply chain capability of Jingdong and Suning Tesco is analyzed.

2.3.1 Analysis of JD's Supply Chain Management Ability

As shown in Table 1, from the perspective of operating growth rate, JD continued to decline from 2013 to 2016, and the traffic dividend brought by Internet popularization gradually decreased. Compared with the new retail model after 2017, JD is still declining but has stabilized since 2018. Despite the growth, the business expansion is stable, and the new retail model is effective.

Table 1. Supply chain management capability index (Analysis object: Jingdong)

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Operating growth rate	67.57%	65.58%	57.42%	42.67%	40.28%	27.51%	24.86%	29.28%	27.58%
Inventory turnover rate (times)	11.22	10.94	9.59	8.93	8.82	9.24	9.66	10.19	12.23
Return on assets	-	-	-	-3.10%	-0.09%	-1.27%	5.2%	14.49%	-0.77%
Ratio of expenses to sales	2.3%	3.5%	4.0%	3.9%	4.1%	4.2%	3.9%	3.6%	4.1%
Administrative expense rate	7%	11.6%	8.0%	8.5%	8.3%	8.0%	7.4%	0.8%	1.2%

From the perspective of inventory turnover rate, the continuous decline from 2013 to 2016, the slow inventory turnover rate reflects the unreasonable inventory liquidity and inventory capital occupation; compared with the new retail model after 2017, the inventory turnover rate gradually increases; this reflects the enterprise capital use efficiency, production input, inventory management level and sales recovery capacity under the new retail model, and the new retail model effectively improves the inventory turnover rate.

From the rate of return on assets, the continuous losses from 2013 to 2016, the competitive strength and development ability of the enterprise need to be improved; compared with the new retail model after 2017, several years of losses, but the range is small, the overall trend of profit fluctuation; this shows that under the new retail model, the competitive strength of the enterprise is gradually improving, the stability and durability of the enterprise profit from the crisis, the comprehensive management ability rises, the new retail model provides effective help to the development of the enterprise.

From the perspective of the sales expense ratio, it fluctuated steadily from 2013 to 2016; compared with the new retail model in 2017, it is still in a stable fluctuation state. This indicates that the unit sales expense spent on unit income is stable, and the new retail model has little impact on the sales expense ratio.

From the management expense ratio perspective, the overall rate increased from 2013 to 2016, and the operation and management ability of the enterprise need to be improved. Compared with the new retail model, the proportion of management cost decreases, and the management ability of the enterprise is gradually improved; this shows that the new retail model effectively improves the management ability of the enterprise.

2.3.2 Analysis of the supply chain management ability of Suning Tesco

As shown in Table 2, In terms of the operating growth rate, Overall growth fluctuated greatly in 2013-2016. The operating condition of the enterprise is unstable. In contrast to vigorously developing the new retail model after 2017, After two rapid upward growth years in a row, it has continued to fall, Growth and even negative losses, Suning's market share has declined, Product sales may have problems; The data show that the rapid growth in 2017-2018 represents a new retail model for some time, but after 2018, Probably due to problems with enterprise product sales, Peer competition is intense, the market share of enterprises has declined. Therefore, it has continued to be in negative losses.

Table 2. Supply Chain Management Ability Index (Analysis object: Suning Tesco)

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
Operating growth rate	7.05%	3.45%	24.44%	9.62%	26.48%	30.35%	9.91%	-6.29%	-44.94%
Inventory turnover rate (times)	11.22	10.94	9.59	8.93	8.82	9.24	9.66	10.90	12.23
return on assets	0.13%	1.00%	0.89%	0.44%	2.75%	7.09%	4.27%	-2.39%	-23.08%
ratio of expenses to sales	12.1%	12.9%	12.3%	11.7%	11.0%	10.6%	12.6%	10.2%	14.3%
Administrative expense rate	2.7%	3.1%	3.2%	2.7%	1.9%	2.1%	1.8%	1.8%	3.0%

From the perspective of inventory turnover rate, the continuous decline from 2013 to 2016, the operation level of the enterprise supply chain, the unreasonable liquidity of inventory and the new retail model since 2017, the overall continuous increase and the enterprise capacity, the data proves that the new retail model is greatly helpful to the operation level and liquidity of the enterprise supply chain.

From the point of view of the return on assets, the overall growth from 2013-2016 fluctuates less, the development of the enterprise is unstable, and the comprehensive operation and management of the enterprise needs to be improved compared with the new retail model, the income increased sharply for two consecutive years and even suffered losses, indicating that the enterprise faces problems in the management and the data of 2017-2018, the new retail model can help the return on assets, but the results may include the problems in the management methods and the increasing peer competition.

From the sales expense ratio perspective, the fluctuation is small from 2013 to 2016, and the enterprise spent on unit income is stable. Compared with the new retail model after 2017, the enterprise maintains a small fluctuation; this indicates that the new retail model has little influence on the enterprise sales expense ratio.

From the perspective of the management expense ratio, there are overall small fluctuations from 2013 to 2016, and the proportion of enterprise management expense is low; compared with the development of a new retail model after 2017, the overall enterprise decreased, and the proportion of management cost is lower; this indicates that the new retail model is helpful to the reduction of enterprise management expense ratio.

3. Discussion and Suggestions

According to Table 1 and Table 2, comparing the new retail model in 2017, the new retail model plays the positive role in the increase of operating growth rate, inventory turnover rate and return on assets; Jingdong stabilized the operation status, improved the supply chain and improved the comprehensive operation and management ability; Suning improved the operation level and liquidity of the supply chain, but the operating growth rate and return on assets only increased for two years, indicating possible problems in the product sales and operation management of the enterprise. The new retail model has a positive effect on the reduction of the management expense ratio but has little impact on the sales expense ratio; both enterprises reduce the proportion of the management expense and increase the management ability.

Based on the analysis in Table 1 and 2, the authors advise the two enterprises under the new retail mode. Although the overall growth rate is lower than before, the enterprise should increase the business scale and get involved in more fields to improve the market competitiveness of the enterprise. For Suning Tesco, the enterprise should optimize the product sales process, pay more attention to product sales, attract talents to help the enterprise in operation and management and improve the supply chain operation level and management ability.

4. Conclusion

Through the study analysis and combined with Table 1, 2, 2013 to 2021 Jingdong and Su Ningyi purchase supply chain management ability index data, the new retail model of the enterprise business growth rate, inventory turnover, return on assets and management ratio has a positive role, but for the influence of sales expense ratio, the new retail mode of enterprise supply chain operation level and management ability, so the new retail model to improve and optimize the enterprise supply chain management, enhance the enterprise comprehensive management ability. This study explains how implementing the new retail model affects the growth trajectory of enterprises. It evaluates the opportunities and challenges these enterprises face and puts forward practical suggestions for promoting the development of the new retail model of China's retail industry.

5. Authors Contribution

All the authors contributed equally, and their names were listed alphabetically.

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