



# Research on the Cost Structure Optimization of E-Commerce Enterprises-- Taking JD as an Example

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## ABSTRACT

In recent years, e-commerce companies have developed rapidly, with Tencent, Alibaba, and other corporate giants occupying a very high position in various market areas. At the same time, with the emergence of more and more e-commerce enterprises, the competition is increasingly fierce. Like traditional enterprises, e-commerce enterprises need human resources, capital reserve, innovation ability, strategic planning, and other elements to flourish. However, due to the different production modes, the cost structure is quite different from that of traditional enterprises. E-commerce enterprises have a lot of software development, programming and design, and hardware procurement. In the process of marketing, it also needs to invest huge human resources and material costs. Its cost structure is complex, so it has higher management requirements, and it is a key part of the mature development of the e-commerce industry that cannot be ignored. Taking the e-commerce company JD as an example, this paper describes the basic situation of the enterprise, analyzes the cost structure of the enterprise, and the problems existing in the management cost finally put forward the corresponding improvement measures and optimization suggestions.

**Keywords:** *E-commerce Internet enterprises, electronic marketing model, Cost structure, influencing factors, driving mechanism.*

## 1. INTRODUCTION

With the development of Internet technology and the continuous penetration of people's work and life, data is growing explosively in people's life and beginning to enter the era of big data. Because the massive data records the development and operation of enterprises and the bits and pieces of people's life and behavior, mining the patterns, laws, and trends behind the data and carrying out innovative applications in combination with all walks of life has become an important topic in this era. After nearly 20 years of development and data accumulation, China's e-commerce has entered the stage of data-based from user-oriented and sales-oriented. The booming development of e-commerce enterprises requires human resources, capital reserves, innovation ability, and strategic planning. Due to its high uncontrollable cost structure, marketing management is difficult, and there is a certain degree of dependence on materials. Therefore, in order to reduce the impact of the above problems on the company, better control of enterprise funds, cost structure management is the key. Therefore, taking the e-commerce company JD as an example, this paper first describes the basic situation of

the enterprise, then analyzes and evaluates the characteristics of the cost structure of the enterprise, and finally puts forward some optimization suggestions. This can effectively improve the operation efficiency of e-commerce, promote the development of precision marketing, and play an important role in realizing the more intelligent development of e-commerce.

## 2. THEORETICAL BASIS

Based on the viewpoints of previous scholars, Internet enterprises in the narrow sense usually rely on the network platform to provide services and carry out business activities. Without physical factories, virtual products account for the majority of their research and development products, and they pay more attention to communication with users. Duan Huaiyu [1] believes that the cost boundary of Internet enterprises becomes fuzzy, and it is not easy to divide the boundary of main business costs and expenses during the period. Not all the costs of Internet enterprises can be completely controlled by themselves. Limited by technology and other factors, some Internet enterprises are at the lower end of the industry chain and need to rely on third-party platforms to provide services. Their weak bargaining power makes

their costs unable to be completely controlled by themselves. Based on the above two points, the cost of e-commerce enterprises can be divided into controllable cost and uncontrollable cost. It is very necessary for enterprises to implement the cost-benefit analysis of e-commerce enterprises. The first is to help enterprises choose the strategy to implement e-commerce. The second is to help develop e-commerce budget plans. The third is to help deepen the understanding of electronic commerce [2].

### 3. ANALYSIS AND RESEARCH ON THE COST STRUCTURE OF JD ENTERPRISE

#### 3.1. Background OF JD

Jingdong Mall is currently the largest self-operated e-commerce enterprise in China, with jingdong Finance, Jingdong Intelligence, Paipai, and overseas business departments. It was officially listed on NASDAQ in May 2014, becoming the first large-scale comprehensive e-commerce platform in China to be successfully listed in the United States. On April 25, 2017, JD Group announced the formal establishment of the JD Logistics sub-group. On August 3 of the same year, it ranked fourth in the list of "China's Top 100 Internet Companies". Ranked 44th in the Forbes Global Digital Economy 100 list in October 2019. The cost sources of JD enterprises mainly fall into three categories: marketing cost, research, development cost, and management cost, among which marketing cost accounts for the largest proportion, which is also the core of the cost of e-commerce enterprises.

#### 3.2 Analysis and research on the cost structure of JD

In the process of enterprise operation and development, the basic idea to be followed is to increase income and reduce expenditure[3]. Table 1 shows that in 2019, JD's annual operating profit turned from negative to positive, with an annual operating profit of 5.11 billion yuan, ending consecutive years of operating losses and finally turning losses into profits, which is a relatively good result. In addition, JD's operating revenue grew by 28 percent year-on-year in 2019, but operating expenses grew by only 17 percent, which was a key factor in JD's operating profit in 2019. Looking back over the years, JD's annual revenue grew by 28% year-on-year in 2018, while operating expenses rose by 34% year-on-year, resulting in heavy losses, it can be seen that the marketing cost has such a great impact on the operating pressure and income of enterprises. Then further analysis shows that sales and administrative expenses have the slowest growth rate among all operating expenses, indicating that the market awareness of JD's products is getting higher and higher in 2019, and the sales cost per unit product is on a downward trend. The sharp decline in the growth rate of administrative expenses also shows that The management efficiency of JD has been greatly improved, with larger companies under management and fewer resources under management. JD did well in 2019, but whether a company can make money or not is only part of the analysis of operating profit. It also depends on other operating income and various other expenses.

Table 1 JD enterprise operating expenses and operating profit annual report

Annual / 100 million RMB	2019	2018	2017
Gross Operating income	5.768.88	4.620.20	3.623.32
Year-on-year growth (%)	25%	28%	39%
Gross profit	844,24	659.54	508.15
Year-on-year (%)	28%	30%	29%
Operating expenses	798.11	679.36	508.07
Year-on-year (%)	17%	34%	24%
Cost of Sales	592.02	512.46	407.83
Year-on-year (%)	16%	26%	29%
Management fees	54.9	51.6	42.15
Year-on-year (%)	6%	22%	-10%
Research and development costs	146.19	121.44	66.52
Year-on-year (%)	20%	83%	24%
Operating profit	51.1	-19.82	0.07971

### 3.3 Non-operating income of JD

As shown in Table 2, although JD's operating profit was only 5.1 billion yuan, its final pre-tax profit rose to 13.6 billion yuan, which can be divided into non-profit interest income and other income. Jd.com received \$1 billion in interest. Among other revenues, nearly \$3.9bn

came from securities sales and another \$5.3bn from other non-operating income, both much higher than in previous years. In the end, it was through these two businesses that JD achieved a total pre-tax profit of 13.6 billion yuan. Therefore, the non-operating income of e-commerce enterprises also accounts for a large proportion, which should be paid enough attention to.

Table 2 Non-operating income of JD annual report

Annual/100 million RMB	2019	2018	2017
Operating profit	51.1	-19.82	0.07971
Funds Operating interest income (Expense)	10.61	12.63	15.67
Interest income	17.86	21.18	25.3
Interest charges	-7.25	-8.55	-9.64
Other Net income (Expense)	75.22	-16.55	-14.54
Proceeds from sale of securities	38.85	-17.05	2.13
Return on equity	-17.38	-11.13	-19.27
Special income	0	7.05	-0.64858
Proceeds from the sale of fixed assets	--	--	--
Other non-operating income	53.75	4.59	3.24
Pre-tax profits	136.93	-23.74	1.21

### 3.4 JD Logistics

JD is not the first listed logistics company, but it has a high degree of attention. The reason is that its core concept is "integrated supply chain", which can be regarded as a major feature of JD logistics. As an online mall, JD enterprise has built its own warehouse and logistics system to serve the source merchants, dealers, retailers, and consumers, forming a whole chain. This is the so-called "Integrated supply chain". The company has gradually explored and established its own logistics special line, which has improved the transportation efficiency to a certain extent [4], the business community is also generally optimistic about the development prospect of JD logistics. At present, China's "Integrated supply chain" has not been improved, and there is no supergiant in the broad market. Therefore, for JD that a company that has been formed and gradually matured and stable, it can be said that there is a promising future.

## 4. PROBLEMS AND OPTIMIZATION OF THE COST STRUCTURE OF JD ENTERPRISES

### 4.1. Problems existing in operating costs and suggestions for improvement

Reducing operating costs is the main direction that many e-commerce enterprises need to pay attention to in the process of cost control, it's precise because operating leverage is a double-edged sword, which can not only play a positive role in increasing operating profits but also produce operating risks[5], moreover, the cost structure of the enterprise is closely related to the business risk of the enterprise. achieving an operating profit of 26.6 billion yuan. In addition to the above retail business to achieve profit, JD logistics and new business are varying degrees of loss. Therefore, from this point of view, in the process of implementing comprehensive cost control in the future, it is necessary to focus on the company's operating costs, so as to lay a good foundation for the realization of expected cost control objectives.

### 4.2. Insufficient research and development investment

As a famous e-commerce enterprise, JD Group has made good achievements in research and development investment. However, with the increasing market

competition, it is difficult for the enterprise to meet the needs of the entire market competition and development at the current level of research and development. As Yang Jiangyong said, the core of internet enterprises is technology research and development. If the core activities are outsourced, the enterprise will gradually lose control of the core activities. Therefore, technological innovation and talent introduction are essential to cost activities for internet enterprises[6]. Judging from the proportion of JD's operating costs in recent years, the research and development investment in technology level is not low, but there is still a lot of room for growth. Therefore, in the future operation and development process of JD Group, it is necessary to increase investment in independent research and development. Innovation is the inexhaustible driving force of the company, and a large amount of research and development investment is not only the guarantee but also the benchmark to measure the technology company. Develop and enrich production capacity advantages, which can't only provide customers with more competitive products and services. It can also reduce the dependence on upstream suppliers from a long-term perspective and achieve the purpose of cost control[7]. JD enterprises will thus obtain a greater advantage in the future e-commerce market competition.

### 4.3. Further improve the logistics system

Strengthening the control of enterprise logistics costs and updating the idea of cost management is the top priority of all e-commerce enterprises, which need to be constantly modified and improve. It can even be said that it will never be 100% perfect. It can accurately calculate the logistics demand of customers when placing orders, such as delivery time, commodity quality, the convenience of taking parts, etc. The refined quantity analysis can not only reduce the logistics cost but also improve consumers' satisfaction with logistics and attract more customers [8]. And the personnel management is the cost of this project. Establishing the cost control thought and consciousness of logistics personnel in e-commerce enterprises, strengthening the training among employees and applying the theoretical knowledge of e-commerce logistics to practice [9]. For example, provide more opportunities for job rotation and interns when recruiting for new positions. Let new employees get familiar with the operation process of logistics and speed up the construction and layout of intelligent technology [10]. which will play a great role in the whole logistics and even the enterprise system.

## 5. CONCLUSION

Internet enterprises rely on network platforms to provide services and carry out business activities. Through the case of JD enterprise, the differences between its cost structure and cost management and

those of traditional enterprises are found. After analyzing the cost structure, it can be seen that market cost accounts for the largest proportion of the cost of JD. Therefore, cost management should also start from here. Improve operational cost management strategy to minimize the costs. Increasing the cost input of research and development can reduce the dependence on suppliers, achieve the purpose of cost control, and further improve the cost control activities.

## REFERENCES

- [1] Duan. Huaiyu. New Strategies for Strengthening cost Management of Internet Enterprises U1. Business News, 2019 (17).
- [2] Cheng. Peng. Analysis of the Costs and Benefits of E-commerce. Abstract library of Xiamen University, 2004.
- [3] Wang. Peiji, Zhou Yu. Research on cost control of e-commerce enterprises under the background of supply-side structural reform\*--Taking JD commerce as an example. Industry Overview.
- [4] Wang. Xinyu. Research on cost control of e-commerce enterprises. Electronic Business, 256600
- [5] Tian, Jiachen. A summary of the significance of cost structure in enterprise cost management. 1008-0155(2020)24-0097-02.
- [6] Yang. Jiangyong. Development Path analysis of enterprise management innovation in the "Internet+" era [J]. Research on Propagation Power, 2019 (20).
- [7] Zhi. Shurong, Liu Liqin. Analysis and Research on cost structure and cost control of Internet enterprises—Taking X company as an example. New silk road horizon, 2021(09).
- [8] Feng. Jiangqi. Explore the construction of the supply chain logistics management system of B2C e-commerce enterprises -- taking JD as an example. Agricultural economy and science and technology, 2019(Volume30-Number14).
- [9] Gan.Guoqing. Research on the cost management system of e-commerce enterprises based on lean accounting—Taking JD as an example. CAIXUN.
- [10] Zeng.Dong. On the cost control of e-commerce logistics—Take JD as an example. ANLIFENXIAN.

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