

SWOT Analysis of Platform Economy: The Case Of JD

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Abstract. In the contemporary global economic landscape, the platform economy has become the core force driving industrial transformation and business model innovation. This study takes the world - leading e - commerce platform JD as the research object and uses the SWOT analysis framework to systematically explore its competitive situation in the platform economy. The research finds that JD's core advantages include a global intelligent logistics network, strong supply chain management capabilities, and high user loyalty. However, it has some disadvantages. For example, the operating costs of some business lines are high, and their penetration rate in the international market is insufficient. In terms of external factors, there are opportunities. The demand for e-commerce in emerging markets is growing, and digital technologies are empowering retail upgrades. On the other hand, there are also threats. The competition between domestic and foreign e-commerce platforms is fierce. Macroeconomic fluctuations can affect the business environment, and data security supervision is becoming increasingly strict. The research results show that JD can achieve sustainable growth by strengthening technological innovation, optimizing the cost structure, and expanding overseas markets. This research not only provides theoretical references for the strategic optimization of JD but also offers empirical evidence for the analysis of the development model and challenges of the global platform economy. It has significant academic value and practical guiding significance.

Keywords: SWOT; platform economy; JD.

1. Introduction

Driven by the digital wave, the platform economy has become a key engine for global economic growth [1]. By integrating resources from both supply and demand sides, it builds an efficient business ecosystem and penetrates multiple fields such as retail, logistics, and finance. The core characteristics of the platform economy network effect and multilateral market structure enable it to achieve exponential value growth through the expansion of user scale [2]. For instance, Parker pointed out that the essence of the platform economy is to reduce transaction costs through digital infrastructure and reshape the value chain of traditional industries [1]. This model not only breaks geographical boundaries but also gives rise to new business forms such as the sharing economy and cross-border e-commerce, exerting a profound influence on the transformation and upgrading of the global economy [3].

As a globally leading comprehensive e-commerce platform, JD's development process is a typical microcosm of the innovative practice of the platform economy [4]. According to a report by iResearch, the repurchase rate of JD's users reached 65%, significantly higher than the industry average [5]. Its core competitiveness is reflected in the integrated ecosystem construction of "retail + logistics + technology": By building its intelligent logistics network (such as Asia No.1 Warehouse Center), JD has achieved ultimate delivery experiences like "211 Express Delivery", with an average inventory turnover day as low as 30 days, which is better than that of international peers such as Amazon (about 40 days) [4,6]. In addition, JD has optimized its supply chain management by relying on big data and AI technologies, establishing in-depth cooperation with over 100,000 suppliers, and forming a full-chain digital capability from procurement to delivery [7]. These practices confirm the theory of Evans and Schmalensee that "platforms enhance industrial efficiency through resource integration" [8].

This study aims to systematically analyze JD's internal capabilities and external environment in the platform economy through the SWOT analysis framework, filling the research gap in the existing literature on the "heavy asset model platform". This study can provide new case support for the

platform economy theory and offer practical references for the digital transformation of traditional enterprises.

2. Company Introduction

JD was founded in 1998, with its headquarters in Beijing, China. It was listed on the Nasdaq Stock Exchange in the United States in 2014. As a technology and service enterprise based in retail, its business covers retail, digital technology, logistics, health, and other sectors. In 2023, its active user base reached 588 million [4]. JD's core competitiveness is reflected in its "logistics + supply chain" dual-wheel drive model: According to the data from the China Federation of Logistics and Purchasing, JD's logistics infrastructure covers 99% of China's population areas, with a total warehouse area of over 30 million square meters. Intelligent warehousing technology has increased order processing efficiency by 40% [1,4]. In terms of technological investment, JD has spent over 15 billion yuan annually on research and development over the past three years, focusing on areas such as AI and the Internet of Things. The proportion of its technology service revenue has increased from 2% in 2018 to 6% in 2023 [4,3]. These practices are in line with the theory proposed by Gawer and Cusumano that "platforms build barriers through the technological ecosystem" [9].

3. SWOT Analysis

3.1. Strength

As a popular e-commerce platform in China, JD has the optimal logistics and an unparalleled distribution system. This system is not only known for its quick delivery, but also its reliability factor is beyond compare. Self-built storage facilities are not limited to only the country, but also the world. It enables same-day or next-day delivery options in many areas. Thanks to this express delivery service, the customers' shopping has adapted with the comfort of online shopping, which brings forth an instant solution to the customers' found within the context of convenience, satisfaction, and fulfillment, and lead to a high level of customer loyalty, as customers are more likely to remain loyal to a source from which they can be served whenever they want, quickly, easily, and in place [4].

Product authenticity has always remained JD's priority. From the very first moment of supplier collaboration with JD and to the final delivery of a customer's product, there exist numerous levels of stringent product quality control. Workers of a dedicated quality inspection department are responsible for thorough inspection of each good coming on a JD ordering list, which has helped JD to offer excellent consumer branding to the consumers [7]. JD attracts consumers who are conscious about the quality of the products they buy. The quality assurance reputation has brought us a large customer base consisting of people who are in search of authenticity and prefer quality over price. Such consumers make better purchases and are more likely to refer JD to their friends and family members, building up JD even further with their recommendations.

JD is the real Internet "leader" who possess strong user data. The information is about their favorite sites, buying behavior, and choices. By using cutting-edge data mining and analysis technologies, JD can go deep into this data [5]. Indeed, JD's algorithms know how to plot this line without making a mistake. Hence, such targeted recommendations include not just the latest sports shoes, but also a training set suitable for the given interests. Personalized feature generally makes users' purchase experience comfortable and, as a result, can also increase the spending habits, pushing the notion that the user will remain with JD, and JD will recognize the user's needs. More customized the service is, more likely the user to be devoted to the system and persist using it for their shopping [10].

JD has continuously put great effort into research and development of technology. They're making impressive inroads both in AI, Big Data technologies along with blockchain. For JD, the main application of blockchain technology lies in the preservation of the truth of the merchandise chain and the trust level of the company. When a customer makes a high-valued purchase, like a designer bag or a bottle of rare champagne, they can use the purchasing app to follow every step from

manufacturer to warehouse, and then finally into their own hands [11]. The transparency in the supply chain builds trust among consumers. JD is utilizing AI to advance the efficiency of inventory management, forecast the demand with high precision, and enabling customer care through virtual shopping assistants like chatbots [12]. These digital efforts not only help JD inhibit efficiency within its internal operation but propel JD towards a unique position in the crowded e-commerce market by presenting a much safer, easier, and user-friendly shopping experience [13].

3.2. Weakness

Along with the strengths of JD, its major weaknesses are expensiveness. The cost of continuous storage expansion is a real threat. The process of building new storage space is an expensive one, which involves a lot of land acquisition, construction, buying, and equipping the facilities with the latest storage equipment. Furthermore, as technology changes, upgrading logistics equipment is an ongoing exercise. Besides, the labor costs within logistics have also been growing rapidly. As the pool of trained personnel in warehouse and delivery area continues to grow, JD has to match those salaries and benefits in order to retain their talent. Cumulatively, these aspects have put JD under pressure, thereby shrinking its financial capabilities. With this cost structure being very high, it might not possess an extremely competitive price as it partially depends on investment or other areas within the business, such as marketing or technology innovation [4,14].

When compared to some of its competitors, JD still doesn't have the range of products available yet as diverse as its competitors. However, it does have a wide variety of usual goods, the supply for which mentioned unique things or long-tail goods is missing. It is in this gap that the customer loses the chance to buy the unusual products that they are looking for. A collector of rare stamps may often be left in disappointment as JD has nothing for them in the store or the person into the hobby might find the expertise in handmade crafts but not have the necessary supply. Therefore, these individuals may approach other platforms that carry more types of merchandise, which could result in a lost opportunity for JD to expand their market share [15].

JD has slowly begun its international expansion but has been rough on the edges. One of the obstacles in JD international expansion is the fact that its competitors are largely relying on mastery over the local market characteristics, shopping habits, and regulations of other countries. To put it differently, people in some of the EU countries like Germany, France, or Switzerland prefer shorter and more precise product description as compared to the Chinese customers who put more value to their local or imported brands' image and popularity. Understanding the e-commerce regulatory landscape is one of the main challenges trading internationally. A few nations might have privacy of information regulations or consumers' rights laws specially customized, an international shop like JD must comply with. The poor knowledge and lack of exploration concerning the international trading environment might make JD have a difficult time in opening up the international market to their products and services. That lack of consciousness puts JD at a proportional risk within the global market league, like many other competitors, probably cannot address segments of their customer base with products, services, and marketing that suit all of them [16].

As the JD business territory has soared unbelievably, it has been becoming a wide-spread complication to administrate and allocate the work between all the suppliers. A few slight glitches such as the bad supplier administration and the delayed supply of the products. Some organizations can be incapable of meeting the minimum requirements, in terms of quality that JD reasonably expects. Thus, they can admit defective products or fuel customers complaints and hence FedEx brand identity. Eventually, in some cases vendors also encounter production delays or transportation which leads to the unreliable supply of the goods to JD trunk stores. The very reason which becomes a part of their supply chain and distribution management, consequently affects the experience of their clients. This is what JD needs to work on by investing much more resources in supplier management systems for better quality control and more reliable supply chains [7].

3.3. Opportunity

The technological growth rate is staggering today, and the e-commerce business too is growing unrecognized. Among all the markets, the developing ones have enormous consumption capacity. Southeast Asia and Africa are regions where the number of Internet users is increasing considerably. In Southeast Asia, countries like Indonesia, Malaysia, and the Philippines have a young generation who can use the Internet more at leisure. These consumers are open to e-commerce, as they perceive it to be convenient with diverse product varieties. In Africa, a large number of population have become exposed to smartphones and the Internet, and thus the demand for online shopping is rising rapidly. JD seems to have the upper hand to achieve that in many ways. Increasing investment to establish local warehouses, beginner use of the host countries' payment methods, and availing of certain preferred products from the developed countries can directly contribute to the expansion of its operations in these regions. Through local warehouses, adapting to local payment method, and local preferences, JD can easily penetrate a vast market and enhance its worldwide trading share [13,17].

Users today have become more choosy and unreasonable rather than before. They increasingly covet better quality and tailor-made products and services. JD can exploit the data resources and technical expertise in order to position itself as a service that meets the consumer's personal expectations. By enhancing data processing, JD can understand each customer's personal focus, collaborate with suppliers to provide customized and unique goods and services. A consumer whose appetite is for fitness equipment could be targeted through a custom fitness gear package that considers their fitness goals and workout regimen. Another option is in services explained earlier, where JD can deliver at a more particular time, one that is convenient to the customer, or offer special packing/gifting options for selected products. With the focus on these customized preferences, JD can further create a market edge by differentiating itself from competitors and attracting more customers [5,18].

JD should strengthen partnership agreements with brands and suppliers. For this purpose they can negotiate on creating such a unique line of products that will be both private and corporate branded. For instance, JD can partner with a prestigious fashion company to design a limited edition line of clothing products that can only be bought from this platform. It not only gives clients exclusive products choice but also preserves its competitive advantage. Such premium products can appeal to customers who will pay additional money for something unique. Interestingly, co-branding has the advantage of brand identification for both the innovator and the partner by each one of them using the customer bases and marketing channels of the other team [19].

3.4. Threat

The e-commerce market is an overwhelming true competitive landscape where other e-commerce platforms are giving their best to gain the confidence of users. The rising numbers of e-commerce platforms in domestic and international markets have adjusted their introduction plans to meet consumer needs. There are price-cutting strategies which some of JD's competitors use, to lure clients to buy products which are significantly less. This may undermine JD's advantage to offer better prices. During those shopping festivals, certain e-commerce platforms might decide to cut their prices on electronics or household items so as to give more value to price-sensitive customers. Apart from this, those competitor companies have also been making strides at expanding their operations, say by adding more product segments or rolling out new services, like faster transport of orders in more areas. The competition being this fierce, JD needs to find a way to become better than its rivals in the running to win the market [20].

The young generation born in the digital era has an inclination towards privacy and data security during online demand. JD and other platforms that obtain and hold customer data in masses are always at risk of data theft. The required worst incident of data leakage is the loss of data of its customers. These may include the exposing of clients' private details comprising but not limited to names, addresses, and payment information, with a danger of identity theft, or financial losses for their

customers. This will not only precipitate the depreciation of JD's brand image but also the dissolution of consumers trust. It can only be re-established with trust being lost in the first place. For JD to counteract this risk, it has to strengthen its security measures through such means as deploying advanced encryption technologies, conducting regular security audits, and organization's employees' familiarization with data protection policies [21].

The legislation that controls the operations of e-commerce environment is in constant transition. Tax policy change can have a definite influence on JD's operational cost. For example, there may be an augmentation in the sales tax or VAT in certain regions, which places JD in a position where they have to choose between absorbing the cost or passing this onto the customers, subsequently affecting its competitiveness. There are more challenges among e-commerce supervisory authorities in governance. New regulations may bring upon JD some new requirements that need satisfying, such as higher standard for a product's quality check, consumer protection, and personal data privacy. Meeting regulations frequently implies an additional burden and front investment of resources, both human and technological, which in turn raises the complexity proportion and ultimately, the cost of business [22].

4. Conclusions

This study on JD in the platform economy via SWOT analysis reveals its distinct profile. JD has strengths like a smart logistics network but faces issues such as high - cost business lines and low international penetration. Externally, emerging market growth and digital retail upgrades are opportunities, while competition and regulatory changes are threats. To grow sustainably, JD should innovate technologically, optimize costs, and expand overseas. This research not only aids JD's strategic planning but also offers insights for the global platform economy, with implications for both academic study and industry practice.

This study is mainly based on public data and lacks in-depth interviews with the strategic decision-making level of JD. Future research can be combined with case interviews to further explore the dynamic relationship of "technological input - business model innovation" in the platform economy. Furthermore, as global regulations on the platform economy become stricter (for example, the EU's Digital Markets Act), how JD can balance compliance costs and expansion speed still requires continuous monitoring of subsequent policy developments.

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