A Survey Report on the Trend of E-commerce Consumption in Jingdong from 2016 to 2018

Chengyun Zhao

Shijiazhuang New Century Foreign Language School, Shijiazhuang, Hebei Province, China
angela@cas-harbour.org

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Abstract. Recently, the development of China's e-commerce consumption has attracted worldwide attention. The study analyzes Jingdong, one of China’s largest online shopping sites with 320 million active users, by investigating the trend of e-commerce consumption of the company from 2016 to 2018. Based on the research results, the paper offers predictions on the prospect of China’s E-commerce market. With the hierarchical analysis method, the study analyzes the influence of different factors on the e-commerce market distribution from different perspectives. Compared with the traditional consumption mode, e-commerce consumption is more diverse. It is assumed that the e-commerce consumption in China will continue to grow at a higher speed while the market will become more segmented and customized.

1. Introduction
The rapid development of mobile Internet technology allows China to gradually grow into a world-leading giant of technology, changing people's way of life and consumption behaviors. Compared with the traditional consumption mode, e-commerce features more diverse consumption behaviors. By investigating the data of e-commerce consumption from 2016 to 2018 in Jingdong, it can be found that e-commerce consumption behavior is driven by healthy and rational considerations and a higher demand for quality. Based on Jingdong Big Data, the paper investigates the user portraits, purchase behaviors, payment behaviors, brand preferences, etc. The analysis of dimensions reveals new trends in consumption such as consumption upgrading, quality of attention, rational health, and rural rise. E-commerce consumption of first-tier cities has surpassed that of the developed countries, forming their own unique model. The consumption concept of second-tier cities is gradually maturing, and emerging consumer groups in central and western China are also rising. Overall consumption of e-commerce users tends to develop in a healthy and rational way, with more attention to product quality.

2. Method and Analysis
2.1 Method
The report analyzed the online shopping consumers in China and discovered obvious differences in shopping characteristics among different gender consumers. Male users prefer “smart” products such as auto supplies, mobile digital gadgets, and computers while female users prefer beauty and maternal products, like infant products, books, food, pets and other "exquisite life" categories. In addition, shopping behaviors of users from different age groups also have different patterns. It is found that post-90s generation focus on quality, post-80s generation are more likely to consume household goods while post-70s generation is more interested in health care products.

Consumers from different geographical regions have different preferences as well. For example, Beijing and Shanghai users prefer food and office supplies, Yunnan province users are keen on clothes and self-driving equipment, Hainan users are major buyers of home furnishings and kitchen appliances while Guangxi Province marks the greatest demand for home appliances.

In addition, the report also found four key words based on the traits of Chinese e-commerce: big names, intelligence, cross-border and consumption upgrades. It is shown that more and more
consumers are pursuing brand quality. Smart products such as smart bracelets, smart watches and smart homes have become the new favorite of online shopping. New Zealand propolis, Chilean plum, Burmese are among the most popular products from abroad. The "explosion models" for imported products and rich data reveals a trend towards high-end, healthy and eco-friendly products under the proposal of consumption upgrading. In addition, the performance of some cities in the era of integrated Internet commerce demonstrated five major development trends of the future business, namely, demand individualization, scene diversification, retail unbounded, digitalization of goods and interconnection of all things, which are discussed in the final part of the paper.

2.2 Analysis of the Results

2.2.1 Regional Differences Affecting Consumption Behavior
E-commerce consumption in first-tier cities has surpassed that of the developed countries, and gradually formed its own model. First-tier cities like Beijing and Shanghai are more inclined to buy consumer electronics, fresh foods, cosmetics and protective goods[1]. In addition, with the aging of first-tier cities, new consumer goods will emerge targeting personalized needs of consumers. Meanwhile, minority brands are gaining momentum. E-commerce consumption in second-and third-tier cities is gradually maturing, with consumers' being more rational when shopping[2]. Studies have found that the post-90s are more receptive to e-commerce consumption, indicating an overall younger trend among online shoppers, who are more interested in purchasing clothing, shoes, automotive supplies, outdoor sports and other consumer goods[3].

2.2.2 Dramatic differences of consumption behaviors among different age groups
The post-90s generation is keen on new and fancy products such as smart phones and smart electronic devices with an emphasis on life quality. The post-80s generation prefers household products[4] while the post-70s pays more attention to health and life quality as they grow older and physical fitness declines.

The post-90s generation is growing into the backbone of e-commerce consumption. Born in the Internet era, they are more likely to embrace e-commerce shopping because of the far-reaching impact of mobile technologies[6]. The post-90s are most willing to consume phones as revealed by data of 2017, which showed that mobile phone consumption accounted for 26.3% of the post-90s consumption[1].

The consumption of the post-80s generation mainly includes maternal and infant products, computers and smart home, among which smart home accounts for 38.1% of the total consumption of this group[2].

The upgraded supply chain makes it easier for the public to obtain fresh food from e-commerce channels, which is attracting more and more consumers with its convenience and rich quality. Among them, the post-70s are the main consumers, accounting for 51.71% of the consumption[7]. Table 1 illustrates the proportion of Jingdong active users from different age groups.

2.2.3 Increasing concerns over brand Quality
With the improvement of income and living standard, consumers in the e-commerce era are in a greater pursuit of brand quality. By looking at search terms in 2017, we found that 24 of the TOP100 search terms in Jingdong Station were brand-related, accounting for 24.3%. By 2018, the number of TOP100 search terms associated with brands rose to 31, accounting for 30.1%[8]. Moreover, domestic maternal and infant brands are striving to catch up with their international counterparts[9]. In other areas, domestic brands are gradually improving their competitiveness, gaining the favor of more and more consumers. Based on statistics, around 59% of fresh food and poultry, 55% of detergents, 50% of beer, 50% of paper towels and sanitary products are from domestic brands.

Another example is the home decoration, drawing more attention from e-commerce consumers. The sales of soft decoration increased by 26% in 2018 compared with 2017. The top five categories of popular soft decoration products include decorative calligraphy and painting, vase flower art, creative home, aromatic candles and cloth soft decoration[5,10].
Furthermore, with the improvement of people’s living standards, people is increasingly health-oriented. Table 2 displays Top 10 retailer brands in China’s e-commerce market.

More and more consumers are pursuing a healthier lifestyle as indicated by the rapid growth of demands for sports goods and fitness equipment products [3,11].

2.2.4 Increasing demand for intelligent equipment
Increasing income and a younger market are working together to boost the demand for intelligent products [4]. In 2016, the top five categories of intelligent equipment consumption included wireless speakers, intelligent robots, intelligent eyes, somatosensory cars and UAVs. In 2018, the Top 5 intelligent digital products on the Jingdong Platform included smart bracelets, smart watches, smart home, health monitoring and intelligent robots, among which the first three categories accounted for more than 77% of the total smart devices[3].

3. Discussion
The first- and second-tier cities will maintain a strong momentum for e-commerce consumption while small and medium-sized cities and towns below the third-line cities will usher in an outbreak, with the potential to be the focus of layout. The overall consumption of e-commerce users tends to be healthy and rational, with a higher expectation for quality. Therefore, emphasis on branding and quality should be the focus of businesses to cater for needs of the growing middle class. With the acceleration of China’s urbanization process, big cities are harboring an increasing number of people. At the same time, mobile Internet and social media are on the track of rapid development and transformations featuring aging population, more people staying single, etc. All these would work to reconstruct the framework of consumer behaviors, requiring the utilization of big data and social change logic to understand this big market with huge potential.

It is exactly the potential that attracts numerous domestic and foreign investors. It is believed that new multi-consumption methods such as unmanned retail, online experience, game interaction, and financial management will be emerging in China. It is suggested that Jingdong can vigorously implement consumer supply enhancement, consumption scene shaping, consumption hotspot cultivation, and commercial brand building and business For platform perfection and business ecology optimization to accommodate strategic placement for Jingdong in the next ten years. Trends such as preferences of Tianjin consumers over cosmetics, clothing among Zhejiang consumers and a general dislike among consumers to buy luxury goods online, preferences of northern provinces on food and beverages, time spent on computers and office supplies in Shanghai, Beijing, Tibet, and Zhejiang, all reflect the rise of local SMEs and entrepreneurship. In the future, there will be more future business development models, trend characteristics and new economic scenarios to be applied and practiced in China.

4. Conclusion
In 2016, China was the top market in terms of e-commerce transaction in the world with the its e-commerce transaction volume exceeding 20 trillion yuan, accounting for more than 10% of the total retail sales of consumer goods. Through the analysis of user portraits and product preferences, the paper found that consumers across China have different consumption preferences, showing the impact of regional culture and economic development on e-commerce consumer behaviors. China will maintain its leading position in global e-commerce for a long time. With the rise of the post-80s and post-90s generations and the growing scale of middle-class, the consumption power and demand of the Chinese will continue to grow, making it the largest market for e-commerce consumption in the world and a field worthy of studying for researchers.

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