Research on the Development of Instant Delivery against the Backdrop of E-commerce

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Abstract

With the development of e-commerce, logistics represents a basic service industry with instant delivery being the closest section to consumers. The research, based on the analysis on the realities of the development of instant delivery, has elaborated on difficulties faced by the growth of instant delivery and plausible development roads of instant delivery from the perspectives of major participants, concentration of freight traffic and collaboration as well as optimization. So that delivery services of China can meet demands of various consumption radii and flexibly serve different customs.

Keywords

E-commerce; instant delivery; logistics; supply.

1. Instant Delivery

With rapid development in recent years, instant delivery as an operational mode in service industry and infrastructure of new retail is the closest section to consumers, demonstrating its increasing importance. After the fast growth between 2015 and 2017, instant delivery has seen slower development in 2018, but it will keep rapid growth in the foreseeable future. It has already had great implications for low-end delivery and consumers' lives and it will keep changing our lives.

Instant delivery is a fast and on-time delivery service that is point-to-point without transfer. Unlike traditional logistics, such as warehouse delivery, express delivery and the like, instant delivery usually covers less than 5 kilometers with a radius of life circles. It provides point-to-point service without transfer, therefore it is immediate and unscheduled, requiring delivery time to be within 45 or even 30 minutes.

2. Realities in the Growth of Instant delivery

2.1 Penetration of the Mobile Internet

As the combination of mobile and the Internet, the mobile Internet owns the advantages of mobile and the Internet, which are all-time presence, sharing, openness and interaction. It represents the upgraded version that has integrated the edges of the two aforementioned invents, namely mobile-phone operators giving wireless access and Internet providers offering all kinds of mature applications.

The mobile Internet has two features, small to carry and convenient to communicate. Users can enjoy the convenience provided by the Internet at all times, anywhere, following their hearts. At the same time, wider business scope, more personalized service and higher quality service are all ensured.

2.2 Consumption Upgrading

As a new round of scientific and technological revolution and industrial revolution spreads its influence, the new generation of information technology shows explosive development trends. It has totally changed people's consumption habits, with cloud computing, big data, mobile Internet, the Internet of things and artificial intelligence being its prominent features. Meanwhile, GDP per capita in China has reached over US$ 5000 and US$ 8000 in 2011 and 2015 respectively. Particularly, the historical record high in 2015 has triggered a wave of "consumerism", a consumption upgrading with high quality and personalized consumption representing it. This upgrading has had the following

characteristics: it has focused on consumers' good experience instead of brands and conspicuous consumption; highly cost-effective entry luxury and fast fashion brands have been taking larger market shares, so have quality education, sports and entertainment, and outbound tourism.

2.3 The Growth of Lazy Economy

Basically, people's pursuit for convenience has given rise to the so-called "lazy economy", an emerging consumption demand. With faster pace of life, people have spent more time on work, commuting, and social lives. Accordingly, they have preferred less time spent on going shopping in brick and mortar stores, cooking and cleaning, which has led to "lazy economy". According to recent consumption statistics of "the lazy" from Taobao, China's major e-commerce platform, in 2018, Chinese have spent 16 billion yuan in purchasing products and services online, increasing 70% from the level of 2017, with post-95s playing the leading role, showing 82% advancement.

2.4 The Rapid Development of the Infrastructure and Services of Logistics

With the soaring of big data and cloud computing, infrastructure of logistics has been improved, so have its weak sectors. Prominent improvements have been made in logistics transport support systems such as railway, highway, water transport and rural transport infrastructure. Meanwhile, transport relevant equipment has enjoyed whole upgrading with faster speed. Vehicles, boats and multimodal transport have been more standardized, old transport vessels and single shell tankers have been quickly phased out and logistics warehouses have improved their storage facilities.

The China Railway Corporation has been constructing 208 railway logistics bases across the country. Commissioned by the National Development and Reform Commission, the Ministry of Land and Resources and the Ministry of Housing and Urban-Rural Development, the Cold Chain Logistics Committee of China Federation of Logistics and Purchase has assessed and then released the first 29 demonstration logistics parks. Emerging logistics infrastructure including cold chain has become better. In 2016, China's freezers storage was projected to increase by 305 tons, i.e. 8.2 %, adding up to 40,150,000 tons and refrigerator vehicles was estimated to grow by 2,200, 23.6% jumping from the 2015 level, reaching 115 thousand cars totally. Big data and cloud computing have witnessed a rapid surge.

3. Analysis of Markets and Demands of Instant Delivery

3.1 Industrial Environment

Taking on the high demands like takeaways, instant delivery has made faster inroads into the whole terminal logistics market. Since 2014 instant delivery has seen an explosive development, with those rising instant delivery providers like Flash Express, Dada Express, UU Errands Runner. In 2015, those takeaway giants like Meituan and Eleme, two of China's greatest online takeaway platforms, have started to execute crowdsourcing code. In 2017, traditional express corporations such as S.F. Express, YTO Express and Yunda Express have swarmed into instant logistics industry. In 2018, Alibaba has succeeded in the buyout of Eleme, Cainiaoyizhan has become a major shareholder of Dianwoda and Suning has brought out Suningmiaoda, demonstrating significant changes in this industry.

At the moment, instant delivery services cover takeaway, B2C selling, fresh food home delivery, express as well as on arrival and terminal delivery, C2C delivery and the like. Meanwhile, the process of instant delivery is diversified including takeaway instant delivery, errands running, express delivery sorting and distribution, C2C delivery and so on.

3.2 Supply Sides of Instant Delivery

According to the Report of the Instant Delivery Industry in Chian by iResearch, in 2016, over 5.6 billion orders of instant delivery have been made, which are predicted to be 8.9 billion and 12.4 billion in 2017 and 2018 respectively, rising 59% and 39% respectively, much higher than other express industries.

The huge development potential of instant delivery has attracted many "players" entering it. At this point, main "players" are divided into three factions: the first is e-commerce companies. Fengniao Delivery of Eleme, before the aforementioned buyout, said that it had around 3 million registered delivery men, together with Meituan's takeaway delivery and Dada of Jingdong being the first camp of the instant delivery industry; the second is express corporations. Shunfeng has recently posted its yearly report that in 2017, after its entering in inner city instant delivery, it has achieved 366 million turnovers in the year; the third is independent third-parties including start-ups like Flash Express, UU Errands Runner and so forth.

3.3 Demand Sides of Instant Delivery

With the growth of O2O and lazy economy, community e-commerce that integrated online and offline services will further develop. All commodities involved in users' lives will all enjoy instant delivery to achieve terminal transport. The covering of instant delivery will follow the increasing demands from larger areas.

4. Challenges Faced by the Development of Instant Delivery

It is still early days and there are difficulties faced by the instant delivery industry with the backdrop of its bright future and rapid growth.

4.1 Diversified Orders with Scattered Demands and Mismatch between Supply and Demand

First of all, takeaway orders has a feature that peaks are concentrated and orders during lunchtime account for over 40% of that of the whole day; situations like abnormal weathers may largely reduce orders. All these features bring troubles to the balance between supply and demand. On the one hand, time slots in peak times may cause longer time delivery, lower satisfaction of customers and safety problems of delivery men; on the other hand, time slots before and after peak times may lead to resource waste and less income for delivery men. The imbalance between supply and demand is the gigantic obstacle faced by instant delivery platforms, especially express delivery platforms. Besides, as those things needed delivery are diversified, making it more difficult to distribute. For instance, fresh commodities have higher requirements for temperature, speed and transport time; Clothing cannot share the same packages with takeaways. For the scattered demands, it is harder to match categories, volumes, vehicles sand helping hands. As a result, there is a small scale and badly networked market, with aims of low costs and high efficiency remaining aims.

4.2 Repeat Traffic Violations and Inadequate Industrial Supervision

In a pursuit for better users' experience, instant delivery emphasizes "fastness", which gives rise to a string of problems like traffic violations, threats to public security and inadequate industrial supervision, requiring careful attention in that instant delivery with continuous rapid development in recent years is the infrastructure of new retail.

First of all, main vehicles utilized by the instant delivery industry are e-bikes, motorbikes and scooters for transportation and many cities have strict controls over these vehicles. However, those delivery men often jump the red light, drive on the wrong side of a road and even compete with cars that are on their right sides, because of their taking of chances and little awareness of laws; Second, e-bikes that they use are often have limited endurance and it may be many difficulties for recharging. Those batteries cannot sustain for a whole day, so delivery men often take two batteries and takeaway companies set up recharging stations for collectively recharging. However, relevant laws and regulations are incomplete and it means high costs for corporations to build recharging stations in downtown areas. Therefore a lot of recharging facilities are out of law, which pose a great threat to fire safety. Although those takeaway providers have tried their best to build recharging stations in law, illegal actions still exist out of their policies, costs and the like. Third, there is limited industrial supervision. At the moment, express delivery is under the supervision of post offices, but instant delivery industry is under no clear-cut supervision. With the growth of new retail, instant delivery

will gradually reach the scale of express delivery with billions of orders every day. The attendant problems like security supervision and protection of users' information are impossible to ignore.

4.3 Lack of Collaboration and Inadequate Market Penetration

It needs two to three days to send a package to its destination, while it costs only 30 minutes to get a takeaway. The more prominent feature of instant delivery industry is "fastness". But both traditional food and beverage takeaway and emerging new retail still have low market penetration. It is said that the future trends will be the collaboration between new retail and food and beverage takeaway.

At this point, nearly 70% of instant delivery orders come from food and beverage delivery. To realize collaboration, major platforms need to channel users' demands, expanding their business scope from takeaway to cover all live events like fruits, fresh food, medicine, groceries and so on.

4.4 Low Level of Networking and Low Quality Services of Instant Delivery

Instant delivery networks built by takeaway platforms is desperately needed by new retail system. Both home delivery within 30 minutes of Freshhema of Alibaba and home delivery within 1 hour of Tmall Supermarket rely on off-line logistics.

As new retail brick and mortar stores launch online cooperation with other stores in other places, cooperation and acquisition are common in instant delivery industry. At the moment, instant delivery shortly meet companies' and consumers' needs for timely logistics, but the key is to improve delivery quality and form service chains. Whether instant delivery companies can strengthen information sharing among huge corporations and form a unified market access mechanism and standard is of vital importance for every company and even the whole industry.

5. Advices for the Development of Instant Delivery

5.1 Promoting the Concentration of Orders and Forming Advancement Closed-loop

Plenty of choices, convenience and good users' experience sustain instant delivery, in which customers' experience are the start point and also the destination. With the improvement of instant delivery market, those platforms with their own customers like Meituan Review will provide more orders, cover more services, attract more registered delivery men and generate more statistics so as to improve their services and then lead to better users' experience. At the same time, better consumers' experience will attract more customers in and further promote concentration of orders, forming a complete loop for advancement; while, small and medium-sized instant delivery platforms need resource supports like order offering from e-commerce platforms such as Alibaba.

5.2 Introducing Standards into the Industry with the Cooperation among Different Sides

Efforts from Instant delivery companies, associations, governments and other parties can promote sound industrial development, because irregular phenomena is inevitable in the development of the emerging industry with rapid growth.

First, state supports must be given to policies, infrastructure, traffic security, finance for instant delivery industry to promote its development. For instance, give policy supports for e-bikes, drones with stricter supervision; offer infrastructure supports for recharging stations, rest centers for delivery men; provide supports for trainings of traffic security, improvement of laws and regulations as well as finance and revenue.

Last but not the least, instant delivery industrial association of traffic security will replace evaluation mechanism of fast delivery. At the same time, consumers need to take a reasonable view towards timeliness, from the pursuit for fastness to punctuality. They are encouraged to be considerate of delivery men when carriers fail to send orders punctually.

5.3 Synergies for Logistics Optimization to Quick Responses

Advices for those logistics corporations are that they must achieve collaboration, realizing shared terminal delivery. They can share their logistics systems with more intensive warehouses and greater delivery coverage. As services are alike, they must optimize their logistics networks and business

processes based on products' features, sale channels of brand distributors, make instant delivery services diversified and ensure parallel execution. They can apply unified warehouses and distribution, that is to say, inventories are stocked in the co-distribution centers and distributors only take charge of selling and the maintenance of clients, representing a relatively high demands for urban delivery ability of third-party logistics.

5.4 Making a Smart Dispatch System Based on Big Data

Through more intensive, smart and efficient operation methods and technologies like big data, smart algorithm and smart positioning, corporations need to improve their own logistics systems. To reduce the waste `of delivery potential before and after peak times, they can cover more categories with powerful artificial intelligence, effectively integrating orders of the same features to improve efficiency.

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