# Research on Collaborative Service Mode of Logistics Distribution under Mobile e-Commerce

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**Abstract:** the Rapid Development of Mobile e-Commerce Has Become an Indispensable Part of Commerce, Which Promotes the "Blowout" Development of Express Industry. At the Same Time, It Also Puts Forward New Challenges to the Logistics and Distribution of Our Express Delivery Industry. This Paper Puts Forward the Classification, Characteristics, Problems, Influencing Factors of Logistics Services, as Well as the Strategy of Building Cooperative Terminal Logistics Model.

#### 1. Introduction

With the Advent of the Era of Mobile Internet, Mobile e-Commerce Has Changed the Business Model of Enterprises and People's Work and Life Style. e-Commerce is Gradually Transiting from Online to Offline. Consumers Can Not Only Purchase Online through Computers, But Also Use Mobile Devices Such as Smartphones to Order. in Addition, Use Lbs to Find the Nearby Logistics Cooperation Point and Ask for Picking[1]. How to Complete Online and Offline Information Docking. as an Important Part of Mobile e-Commerce, the Bottleneck Effect of Target Logistics Circulation is More and More Obvious, Which Will Bring Risks to Business Activities. in Recent Years, Online Shopping "Inventory", Valuables Are Repackaged and Express Delivery is "Slow Delivery" is Becoming an Obstacle, the Operation of Goods is Damaged, Express Delivery Personnel, the Difficulty of Claim Settlement, and the Enthusiasm of Service Are Rarely Signed. What Will Ultimately Harm the Interests of the Business. to Adapt to the Changes of Mobile Internet, Reduce the Terminal Circulation Risk of Mobile e-Commerce, Improve Efficiency and Service Quality Has Become an Urgent Issue.

#### 2. Overview of Mobile e-Commerce

#### 2.1 Definition of Mobile e-Commerce

Mobile e-commerce is a general term for e-commerce activities with the help of mobile terminals and wireless communication technology. General mobile terminals include smart phones, laptops, tablets, PDAs, etc. Mobile e-commerce integrates wireless communication technology and e-commerce technology, enabling transactions and financial activities to be realized anytime and anywhere. Most of the early mobile e-commerce applications are mobile payment services. Mobile terminal users can purchase tickets and shopping through SMS or WAP. With the rapid development of mobile e-commerce technology, with the emergence of 3G or 4G mobile technology, intelligent mobile terminals and other cutting-edge technologies, with the growing application of mobile e-commerce, business activities spread to all situations[2]. For example, in banking, personal financial management can be carried out. Trading is mainly used for stock trading. Ticket booking, entertainment, shopping, wireless medical, mobile masp and other enterprises.

# 2.2 Analysis of the Current Situation of Mobile e-Commerce

#### 2.2.1 The Scale of Mobile e-Commerce Users Continues to Expand

In June 2015, there were 5 mobile phone users in China. 2014 billion yen, an increase of 367900 yuan over December 2014. At the end of 2015, the number of Internet users in China was as high as 6. 8.80 billiards, 395100 new Internet users in the whole year. Internet penetration is 50. 3%, an

increase of 4% over 2014. In December 2014, the proportion of Internet users using mobile phones to access the Internet was 85.12. %Increase to%. %At the end of 2015, the number of mobile shopping users in China reached 3. 6.5 billion people, 23 years older than last year. 8%, it is estimated that by 2018, the number of mobile e-commerce users in China will be close to 500 million. The decrease of smartphone price, the decrease of Internet access cost and the optimization of network coverage increase the number of mobile Internet users, which can be seen from the switching of traditional industrial users to mobile Internet.

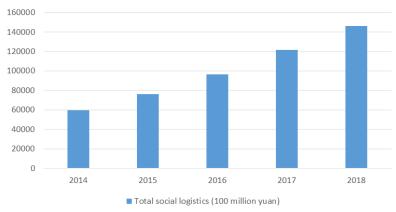


Fig.1 Total Amount of Social Logistics in China from 2014 to 2018

#### 2.2.2 The Performance of Intelligent Terminal is Constantly Improving

The popularity of intelligent terminals is very fast, and many personalized handheld devices appear at home and abroad. Consumers' demand for intelligent terminal performance rises to a higher level, which further promotes the continuous innovation and breakthrough of intelligent terminal. At present, consumers mainly focus on screen definition, colour brightness and operation speed of intelligent terminal. In recent years. Smart terminal products such as apple in the United States, Xiaomi in China, Huawei and Samsung in South Korea are very popular. These high-performance smart terminal products are attractive to consumers. In this context, in order to sell products, most of the intelligent terminal manufacturers have gained a larger market share. Mobile e-commerce works hard to promote the development of more intelligent high-speed computing.

#### 2.2.3 Continuous Innovation in the Application of Mobile e-Commerce

With the popularity of 3G and 4G, there are many kinds of mobile Internet access packages, which promote the vigorous development of mobile Internet. In recent years, the Chinese government has attached great importance to mobile Internet access services, reduced the cost of mobile Internet access, expanded the audience of mobile Internet access, and promoted the development of mobile e-commerce. Today, there are many activities in mobile e-commerce transactions, and applications on smart phones often cover a wide range of fields, including finance, information, entertainment, tourism, and personal information management. For example, in terms of shopping, people can choose mobile applications such as Taobao, Jingdong and Dangdang. Entertainment applications include panda live, QQ and WeChat. Many applications cultivate consumers' habit of surfing the Internet through mobile intelligent terminals, which lays a foundation for the further development of mobile e-commerce.

## 2.2.4 Enterprises Improve Service Level with e-Commerce Logistics Platform

In 2014, the new consumer protection law stipulated that within 7 days of strengthening consumer protection and promoting the development of online shopping, online shopping should not be returned for any reason. Second, the e-commerce platform and coolier started delivering on the same day as they were appointed. Service improves the efficiency of logistics, and logistics service competition improves the accuracy of distribution time. Third, actively promote the mobile terminal shopping. The convenient payment function of the mobile terminal and the larger preferential range than the PC terminal promote the rapid development of the mobile terminal

shopping. The company started a customized innovation mode based on big data applications to meet the personalized needs of consumers and achieve more accurate marketing.

#### 3. Characteristics of Terminal Distribution in Mobile e-Commerce

# 3.1 High Frequency of Distribution and Small Amount of Single Transaction

The retail mode based on mobile e-commerce network is becoming more and more personalized and fragmented. In many e-commerce online payment environments, the order amount is more traceable than the traditional logistics industry. The value of logistics orders in mobile e-commerce is usually small. Mobile e-commerce has a large customer base and a large number of orders. Even if the order value is small, many customers will generate a large number of orders, so the distribution frequency is high and the circulation cost is high.

## 3.2 Consumers Demand High Timeliness

The satisfaction degree of logistics industry is an important index that affects the development of e-commerce. The development of logistics industry will directly affect the development of e-commerce and the image of enterprise sales brand. Now there are many young people like online shopping, not only because of the low price, but also because of the convenience of online shopping. This function provides convenient services for many otaku men and women, and they can enjoy it. Enjoy shopping at home. If consumers use the mobile e-commerce client to purchase goods, it has strong timeliness requirements. They expect the goods to arrive at their door as soon as possible. Thanks for their fast and convenient online shopping. Therefore, the final distribution must be put in the hands of consumers, show the quality of service, obtain trust and complete as soon as possible.

#### 3.3 Consumers Demand High Reliability of End Distribution

The job of terminal deliveryman is to ask terminal deliveryman to deliver goods to customers without authorization. In the decentralized process, it is inevitable that accidents will affect the distribution quality of distributed express delivery, such as weather changes, traffic accidents and health problems. These emergencies will have a specific impact on the product or cause damage to the product during transportation. As a result, the reliability of terminal distribution is improved. If consumers receive damaged packaging and damaged products, their mood will be greatly affected and their shopping experience will be very poor. Therefore, in the era of mobile e-commerce, consumers need to greatly improve the reliability of terminal distribution. Mobile e-commerce enterprises need to continuously optimize terminal distribution services and improve consumer satisfaction.

#### 3.4 Consumers Have High Personalized Requirements for End Distribution

Now, the end of line delivery personal take up, express delivery, intelligent exchange network has. Consumers can choose the delivery method based on their work and life conditions under the higher personalized requirements. At the same time, consumers can also customize the delivery time. For example, when shopping on the Internet, they can choose to deliver the goods at ordinary times, weekends and other times in order to avoid secondary delivery when the goods are delivered or when the consumers are not on the website. In addition to the terminal sending mode and time, online shopping customers transmit and send high conditional, unconditional cash return and other value-added services in front of the departure lounge, which I think can be customized. Logistics companies must have the function of collecting payment. In the process, there will be some personalized problems closely related to the shopping experience of consumers. Therefore, to meet the higher degree of personalized needs of consumers is the issue to be considered at the end of the current distribution. 2.5 high communication requirements with consumers

Mobile e-commerce enterprise terminal circulation station not only provides goods, but also promotes corporate culture, products and services. In this process, it is inevitable to communicate with consumers. Bad things directly affect the image of mobile e-commerce enterprises and the

reputation of express enterprises. The communication with consumers not only has the expanding function, but also collects consumer information, including consumption concept, consumption power, consumption preference, etc. It is important to get these valuable feedback for market analysis and service improvement. Great decision making help. Therefore, whether the mobile e-commerce company completes the end distribution, or the express company completes the end distribution, we can not ignore the effective communication with consumers. This channel can be used to master a lot of important information, promote the brand image of enterprises, and win the trust of consumers with good service attitude.

## 4. Factors Influencing the End Distribution of Mobile e-Commerce

The main factors that affect the logistics and distribution of mobile e-commerce are as follows.

# 4.1 Service Quality of Logistics Industry

The service quality of logistics industry is an important factor restricting the development of e-commerce. First, the development of e-commerce is in a bottleneck period. To achieve breakthrough and development, we must improve the quality of logistics services and customer satisfaction. With the direct contact of customers with the deliveryman, the quality of the end deliveryman not only affects the company's own image, but also affects the service quality of the logistics industry[3]. Therefore, service quality is the main consideration in the logistics process. Second, the development of e-commerce in many areas is very difficult. Although many logistics companies do distribution, they do not have enough distribution. The cost of logistics services is also rising. It is necessary to study the most effective service implementation method. In addition, through the optimized service of logistics enterprises, the cost of management enterprises, so that enterprises can obtain balanced benefits[4].

# 4.2 Distribution Capacity of Enterprises

The terminal distribution of e-commerce mainly reflects the timeliness of demand response, service price, humanization, after-sales service and logistics equipment. For enterprises engaged in e-commerce, they can choose two logistics circulation modes with logistics capability and integrated logistics management, or outsource logistics.

#### 4.3 Market Size and Market Coverage

Although many E-commerce markets are scattered, they are geographically vast and unevenly distributed [4]. At the end of logistics, enterprises need to analyze market scale and market coverage in order to allocate logistics resources reasonably.

# 5. Terminal Logistics Collaborative Distribution Mode of Mobile e-Commerce

Specifically, e-commerce and logistics enterprises should adopt the following methods to establish a coordinated distribution model:

#### 5.1 Main Body of Collaborative Distribution

The main body of collaborative terminal logistics is mobile e-commerce company or third-party Logistics Company. A common decentralized system is constructed. Specifically, a number of mobile e-commerce companies cooperate to establish logistics and distribution systems, improve resource utilization, and reduce construction rate. After completion, many enterprises can enjoy hardware facilities such as logistics sites, vehicles and warehouses. Third party logistics companies realize complementary advantages and resources[5]. In order to achieve the best distribution path, through the coordinated distribution of strength and weakness, realize the unified allocation and management of enterprises, regions and customers, and maximize the use of enterprise capacity and resources. Mobile e-commerce company, in order to build the investment capital of logistics website and hardware equipment, the best logistics foundation and to achieve the highest service,

the latter's professional operation mode, in order to use the logistics company of sader party for cooperation.

#### 5.2 Selection of Collaborative Distribution Nodes

Introduce convenience stores, communities, intelligent express delivery and other terminal distribution stations[6]. They don't provide logistics services, they happen to be where the goods are concentrated. Please build in dense masses and concentrated customers and regions, and collect declaration through doors or consumers themselves. This model can mobilize the enthusiasm and participation of consumers, while reducing logistics costs and resources. In addition, rich convenience stores, supermarkets and communities have ready-made resources, as long as mobile e-commerce companies sign agreements with these resource owners.

# 6. Benefit Analysis of Terminal Logistics Collaborative Distribution in Mobile e-Commerce

It is an important application of this model to build a terminal circulation website shared by many enterprises in the e-commerce circulation system[7]. This draft compares the establishment of the website with the terminal circulation operated by express delivery company, and analyzes the differences of social and economic benefits, service level and organization management.

#### 6.1 Social Benefits

At present, many express companies use self circulation mode, a large number of vehicles transport goods on the road, resulting in traffic congestion. For example, from 9:00 a.m. to 5:00 p.m., many universities and regions, including Shunfeng, Yunda, Zhongtong and many other express companies, have been overcrowded with tricycles, affecting the appearance and order of the city.

#### **6.2 Service Level**

Through market research and customer feedback, security, standardization and convenience are the main end-to-end indicators. Security refers to the fact that the goods are damaged, damaged, lost, or omitted in the whole logistics distribution process[8]. The meaning of the standard is that the distribution personnel must wear uniform clothes, the packaging is clean and the service is thoughtful. The so-called convenience is that it takes time for the staff to arrive at the guest's home[9].

#### 6.3 Organization and Management Level

In terms of organization and management, the former is based on win-win cooperation. The two parties are required to establish a cooperative relationship according to the agreement and contract forming the cooperative operating system. That is, in the establishment of terminal management, new management system and standardization system need to be integrated.

#### 7. Conclusion

The regional collaborative logistics mode of terminal logistics is an important condition for the development of e-commerce. The logic exchange of regionalization can realize the minimum waste of resources, the maximum efficiency of logic construction and operating system, and the goal logic can realize the scale and unity[9]. At the same time, in the face of the fierce competition in society, differentiated competition is formed to improve the service quality, reduce the circulating funds and maximize the benefits. For e-commerce companies, consumers, third-party logistics enterprises, a win-win situation.

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