

# Research on Dada Crowdsourcing Logistics Mode in the Context of O2O

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**Abstract.** The prosperity of O2O (Online to Offline) has pushed the development of Chinese logistic industry. Under such background, further step of e-commerce is depended by ‘last mile’. Beginning with the concept of crowdsourcing in 2006, the crowdsourcing mode is regarded as the best way to operate ‘Internet + Logistics’ because of its better use of idle resources, and continues to attract attention in the commercial field. This paper takes the example of China's crowdsourcing logistics leader ‘Dada’, analyzes its crowdsourcing logistics mode with the questionnaire, points out the existing problems of crowdsourcing logistics, and then puts forward suggestions for the better application of crowdsourcing in logistics field.

## Introduction to Crowdsourcing Logistics Mode in O2O Based on *Dada*

### Overview of *Dada* Logistic

*Dada-JD* coop is a Chinese advanced platform that provide city express delivery information service and local real-time retail services. Taking advantages of crowdsourcing and the Internet, *Data* builds a ‘highway’ for urban-end logistics. *Dada*'s services have covered more than 450 major cities nationwide, serving more than 1.2 million merchants and 70 million individual users, the amount of daily orders reaches tens of millions [1]. The optimistic capital market, the widespread popularity of mobile phones, the strong support of national policies, and the diversification of people's needs have become *Dada*'s development opportunities.

### Data Collection and Comprehensive Analysis

This paper obtains data through the questionnaire and selects *Dada Knight* on the crowdsourcing logistics platform *Dada* as the survey object. The respondents were involved in more than two crowdsourcing logistics activities. After the questionnaire was collected, it was analyzed based on relevant data. Table 1 describes the information about respondents. A total of 451 online questionnaires were distributed in this study, 302 questionnaires were collected, the response rate was 66.9%, and 69 questionnaires with incorrect answers, incomplete answers, inconsistent answers and other questions were deleted. The questionnaire was 77.4% effective. The demographic characteristics of 233 samples are shown in Table 1.

Table 1. Survey statistics

Description indicator	Type	Frequency	Proportion (%)
Gender	male	216	92.7%
	female	17	7.3%
Age	Under 20 years old	3	1.3%
	20-24 years old	109	46.9%
	25-29 years old	100	42.9%
	30-34 years old	8	3.4%
	35-40 years old	8	3.4%
	40 years old or older	5	2.1%
Education	High school and below	137	58.8%
	College	81	34.8%
	Bachelor degree or above	15	6.4%
Monthly Income	¥1,000 and below	19	8.3%
	¥1001 - ¥2000	21	9%
	¥2001 - ¥5000	156	67%
	More than ¥5,000	37	15.9%
Time to join <i>Dada</i>	Less than 6 months	122	52.4%
	6 - 12 months	76	32.6%
	1 - 1.5 years	32	13.7%
	More than 1.5 years	3	1.3%
Frequency of Participation in Crowdsourcing Logistics	Occasionally	98	42%
	Often	135	58%
Career	Logistics and Related Industry Workers	44	18.9%
	Freelancers	107	45.9%
	Students	26	11.2%
	Other	56	24%

From Table 1, it can be seen that crowdsourcing logistics participants are mostly male, more than 90%, which is related to the severe working environment. In terms of age, 20-29 years old accounts for the majority as young people are full of curiosity about new things. Crowdsourcing logistics distributors are mainly high school and college education, because of simple operation, low threshold for employee requirements and low educational level requirements. The monthly income of distributors is in the range of 2000 RMB to 5000 RMB. More than half of the *Knight* joined *Dada* in less than six months, with high turnover and very active organization. In terms of frequency of participation, nearly 60% of respondents often participate in crowdsourcing logistics. From a professional perspective, less than 20% are engaged in logistics and related industries, and nearly half of the distributors are freelancers, indicating that crowdsourcing logistics has low professional requirements. The sample of this questionnaire survey is typical. It can be seen that crowdsourcing logistics has new characteristics and potential for development.

## The Problems of Crowdsourcing Logistics Enterprises--Taking *Dada* as an Example

### High Turnover Rate of Delivery Personnel

From the term 'time of joining *Dada*', it can be seen that more than half of the delivery staff left the company after half a year, and the turnover rate was too high. In fact, the crowdsourcing mode integrates social idle resources rather than full-time employment, so the platform's binding force on the distribution staff is correspondingly weakened. In addition, the temporary hired delivery staff lacks social insurance, and the guarantee system is still not perfect, which also affects the stability of personnel.

### **Insufficient Supervision and Management**

Although the ‘O2O + crowdsourcing’ mode is a popular logistics operation mode at present, due to the strong mobility and decentralization of delivery personnel, intensive management is difficult to implement, which will inevitably bring negative effects to supervision. Difficult supervision have become the weaknesses of the crowd-sourcing mode [2]. Although crowdsourcing enterprises and delivery staff have certain institutional constraints and normative requirements, because of the uneven personal qualities of staff and the weak ability of self-regulation, it will lead to the lack of discipline. At the same time, social and government departments also lack the supervision mechanism for crowdsourcing enterprises.

### **Low Delivery Service Efficiency**

In 2015, the State Council proposed that ‘89 intermediary services such as the confirmation of professional skills of express delivery salesmen are no longer necessary for the administrative approval and acceptance of departments’ [3]. The introduction of this policy means that couriers can be employed without professional qualification certificates. Crowdsourcing model does not strictly restrict the age, education, professionalism of public express delivery personnel. It is easy to enter the job and the threshold of employee is considerably low. Due to the lack of basic vocational training, there are some problems such as lack of responsibility, poor service attitude and low service quality.

### **Security Risks**

The security of crowdsourcing logistics includes two aspects: the process safety of goods distribution and the personal safety of distributors. The former is caused by unsafe factors due to improper operation of part-time couriers in the process of distribution, such as failure to deliver goods, damage to goods, loss of goods, theft of goods and other issues. Another problem is the personal safety of distributors and consumers [4]. The main means of transportation for distributors are electric vehicles or other small motor vehicles. Because personal income directly depends on the amount and time of distribution, in order to complete task as soon as possible, distributors often do not comply with traffic rules, and there are potential safety hazards. In addition, as many crowdsourcing enterprises set a relatively low threshold for social public distributors, a small number of bad guys take this opportunity to steal and rob the property of the consumers when delivering goods at the door, and even threaten the personal safety of the recipients.

### **Intense Crowdsourcing Market Competition**

Although crowdsourcing logistics has many advantages compared with traditional express delivery, it will inevitably lead other enterprises to follow this mode, which will naturally result in fierce market competition [5]. In addition, low operating costs have attracted a large number of related enterprises to enter the market, which makes the business model easy to be imitated and duplicated. Nowadays, crowdsourcing logistics platform in the market is in a state of barbaric growth. In a homogeneous market, once individual crowdsourcing logistics companies lose their core competitiveness, they are likely to lose the market.

In short, due to the above problems, it is necessary to solve the problem gradually in the next step of development, so as to make crowdsourcing logistics mode run healthily.

## **Measures to Speed up the Cultivation and Development of Crowdsourcing Logistics**

### **Increasing Employee Welfare Benefits and Reducing the Turnover Rate of Distributors**

Crowdsourcing logistics mode has broad prospects for development and great market capacity. Therefore, if enterprises want to achieve good economic benefits, they should mobilize the enthusiasm of employees and improve their welfare benefits. They can introduce basic wages, piecework wages and improve the insurance system to attract more people to participate in the logistics industry, as well as obtain economies of scale. In addition, various crowdsourcing

platforms should also follow the industry code, striving to achieve benign competition between platforms, in order to avoid the high turnover rate of this industry.

### **Strengthening Effective Supervision and Management Mechanisms**

First, government departments should strengthen supervision and management [6]. Relevant departments must promulgate feasible laws and improve the standard system as soon as possible, so that the operation of crowdsourcing enterprises can be legally, ensuring their track of standardized management. The second is to strengthen supervision between industries. The logistics industry associations should meet the actual requirements in the planning, development, business areas, market access and self-discipline of the crowdsourcing industry. The third is to strengthen consumer evaluation and supervision. After each transaction, the consumer conducts a qualitative evaluation of the 'good, medium, poor' qualitative evaluation of the delivery staff. The crowdsourcing logistics platform can reward and punish distributors according to these evaluations.

### **Strengthening Enterprise Norms and Comprehensively Improving Service Efficiency**

For the current freelance distributors, crowdsourcing platforms can give priority to the selection of personnel with logistics knowledge or experience; recruit backbone to newcomers in service standards, service etiquette and other skills; and introduce the concept of smiling service. In addition, crowdsourcing logistics platform should strengthen the detailed management of the distribution process, build a standardized management system of handover-transmission-signing-receiving-evaluation, etc. [7], and establish a credit evaluation system for free couriers.

### **Strengthening Safety Risk Education to Ensure Overall Operational Safety**

There are two main reasons for traffic accidents among delivery personnel, one is fatigue driving caused by long delivery time, the other is the safety risk brought by pursuing speed of one single delivery. In order to ensure the safety of distribution process, crowdsourcing platform should do as follow. First, the enterprise should strengthen safety risk education so as to keep the alarm bell ringing and improve the safety awareness of distributors. The second is to strengthen the education of responsibility [8], making staff cherish the goods of customers and minimize the occurrence of damage, loss and short-term events. The third is to strengthen the work discipline in the process of distribution. All distribution personnel are required to focus on work, with strong discipline to regulate the personal behavior of distribution staff.

### **Strengthening Innovation and Promoting the Healthy Development of Crowdsourcing Logistics**

Crowdsourcing represents a new development direction of logistics industry. Therefore, in the future, crowdsourcing enterprises will show blowout growth, and the market competition will become more intense. It is necessary for crowdsourcing enterprises to actively increase the research of hardware and software [9], so as to enhance the ability of self-innovation and development of enterprises. In addition, government departments and industry supervision departments should strengthen guidance, avoiding the formation of a monopoly situation, and striving to create a dynamic market environment.

### **Conclusion**

Taking *Dada* as an example, this paper analyses the existing problems of crowdsourcing logistics enterprises by means of a questionnaire, and puts forward some countermeasures, such as improving staff welfare, establishing supervision mechanism and strengthening enterprise norms. Throughout the development of China's crowdsourcing logistics in recent years, although there are some problems in operation, it has great development prospects. It is believed that under the influence of the vigorous development of O2O, crowdsourcing logistics will become more standardized and perfect.

## References

- [1] Information on <https://about.imdada.cn>
- [2] Zhao Xiaopeng, Song Xin, Application of O2O+Crowdsourcing in Logistics Field, *J. Logistics technology*.2016,35(08):36-38.
- [3] The State Council, Decision on the first batch of clean-up regulations for 89 administrative matters concerning the administrative examination and approval of the department of the State Council, Beijing, 2015
- [4] Huang Guanwei, Xia Jie, Studies on the Last Mile Logistic Models in E-Commerce, *J. Logistics Engineering and Management*. 2017,39(02):81-83+94.
- [5] Luo Wei, The Strategy Research on Development of Internet Plus Suzhou Logistics under the Background of Supply--side Reforms, *J. Logistics Engineering and Management*.2017,39(06):1-3.
- [6] Lei Jing, Research on the Mode of Crowdsourcing in City Distributon under the Internet Background, [*J*]. *Logistics Engineering and Management*. 2017,39(09):19-21+26.
- [7] Zhang Xueyan, Nie Wei, Discussion on Crowdsourcing Logistics Mode Based on “Internet+ Taxi” Platform, *J. Logistics technology*. 2017,36(07):35-38.
- [8] Tu Shuli, Discussion on Problems and Countermeasures for Crowdsourcing of Tourism Logistics Network of Jiangxi, *J. Logistics technology*. 2015,34(01):45-48+170.
- [9] Ji Hanlin, Zhou Jinhua, Zhang Shen, The Research of Fresh Food and E-commerce Industry under the Crowdsourcing Pattern,*J. Logistics Engineering and Management*. 2016,38(1):93-95