

Research on Terminal Distribution Mode of Express System in University Town

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ABSTRACT

Terminal distribution is the key point in express delivery, because it affects the service quality and customer perception. University park. Huge online shopping orders lead to a lot of problems on terminal distribution in university town. At present, feasible terminal express service pattern in university town are tradition express service point, intelligent delivery lockers and express convenience stores. Taking Shanghai Songjiang university town, for example, has carried on the detailed comparison, An appropriate terminal distribution mode is obtained, from the initial investment costs, operating costs, customer preferences, customers convenient and business situation.

Keywords: University Town, Express delivery, Service mode, Intelligent delivery locker, Express convenience store

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I. INTRODUCTION

Terminal distribution, that is, "the last kilometer" problem has more influence on the user experience. This section are extremely concerned by the whole express industry. University town inhabited by many young people. Not surprisingly, they are the most active online shoppers, which leads to express business demand is also more. Thus university campus is a battleground Courier company LTD, there are many express stores.

Relative to other service area, university town and displays its unique characteristics, such as the receipt amount is more than a quantity, service demand, uneven distribution of time and space distribution, etc. These will make appear many problems in practice. Resting time is not fixed, and the class time can't answer the phone, will affect the delivery. It is most concentrated period after school. Express staff workload increases, the error rate, which increases the error rate. On the other hand, due to the delivery person working time limit, students often are required to limit, also user caused great inconvenience to the students.[1][2]

University town terminal distribution issue is very notable, research results have three main aspects, one is the analysis of the current campus town express delivery or university;2 it is to express the end of the integration of resources and optimize configuration;3 it is to express the end service mode innovation and evaluation. The first is the analysis of the current problem of university town express. The second is the integration of resources and optimize configuration. The third is innovation and evaluation of service patterns.[3]

II. SONGJIANG UNIVERSITY TOWN EXPRESS BUSINESS OVERVIEW

Songjiang university town is located in the north-west of Shanghai Songjiang new town, covers an area of about 8000 acres, is one of the larger university town in China. Songjiang university town is embedded to Shanghai International Studies University, Shanghai foreign economic and trade university, Shanghai LiXin Accounting College, DongHua University, Shanghai University of Engineering Science, East China University of Political Science and Law, Shanghai Institute of Visual Art, a total of 100000 students in this together. Due to large town scale, development is relatively mature, Songjiang university town express delivery business as a whole is very high. So the following selection of Songjiang university town as a university town express mode analysis object. Songjiang university town customer group is mainly teachers, students and the employees around the university. But from the number of people and express demand, college students are significantly higher than other people. Their online shopping consumption rate is very high, and the demand of the file transfer is very few. Most send expresses of university students are returned goods or big luggage.

Songjiang university town dormitory is a east-west and long, narrow distribution. From east to west, in turn, can be divided into four areas: the second phase, the first phase, the third phase and the fourth phase of dorm. At present, there are more than a dozen express company here, including Shun Feng Express, YuanTong Express and EMS, etc.

Whether proprietary or join way, each courier company set up many stores and express pick-up point, the current SongJiang university town has a total of 27 delivery point.

Table 1 Songjiang University Town Express Distribution Branches

	Dorm I	DormII	DormIII	Dorm IV
ShunFeng	--	√	√	--
ShenTong	√	√	√	√
YuanTong	√	√	√	--
ZhongTong	√	√	√	√
YunDa	--	√	√	√
Fast Express	--	√	√	--
BaiShi	--	√	--	√
TianTian	√	√	√	--
TaoBao	√	√	√	√
JingDong	--	√	--	√

III. TERMINAL DISTRIBUTION MODE

There are many express companies in the current university campus, their service pattern varied also. Main patterns are traditional express points, convenience stores, intelligent delivery lockers, and home delivery service, etc.

Due to the limitation of the school and dormitory management, home delivery as a common way of other area in the university town is difficult to realize. At present, only EMS can provide approximate door-to-door delivery service by dormitory administrator.

(1) Traditional express branch

This is a form of collecting operation platform. In practice, there are two types. One is the e-commerce enterprise self-proprietary delivery point, such as JingDong mall and TaoBao alliance. E-commerce companies established branches near dormitory, operating their own receiving & delivery express business. This kind of Branches can be auxiliary publicity and promotion.

The second is person or company who have some money, by joining or proxy express company business, formed a particular Courier company service meals.

This model very common in university town, compared to the first one is flexible and convenient, but in the case of low profit and large volumes is likely to lower the quality of service.

(2) Express convenience store

Express convenience store mode in developed countries has been very mature, can greatly reduce the cost of Courier service at the end. At present there are two forms, one is express delivery enterprises proprietary convenience store, such as ShunFeng HeyKe. The other is cooperation form between express delivery company and convenience store, such as ShunFeng and "alldays" store. "Rookie post" also puts forward the logistics solutions specifically for colleges and universities.

(3) Intelligent delivery locker

Intelligent delivery locker is a kind of new mode based on Internet of things, able to identify, storage, and management package. It can effectively protect the user's personal privacy, alleviate the pressure of the express delivery at the end of the part, reduce the manpower cost. [4]

It also has some disadvantages, such as upfront costs are relatively high. Of course lockers are available to rent at a competitive price from SuDiYi or ShouJianBao enterprises.[5]

Secondly, due to the limited by the size of the cabinets, some special specifications and special storage requirements items cannot be stored.

In addition, considering the security problem, information extraction and recognition system and security monitoring system needs to be assembled.

There are four "ShouJianBao" points with 103 lockers each in Songjiang university town.

IV. EXPRESS SYSTEM TERMINAL DISTRIBUTION MODE OF SONGJIANG UNIVERSITY TOWN

From the Courier company or the investor's point of view, the selection of express service pattern need to consider costs, customers and management and so on various aspects of factors.[6]

Costs include upfront investment costs and operating costs. Manage content mainly reflects in the business. Customer factors mainly reflected in the customer preference and convenience.

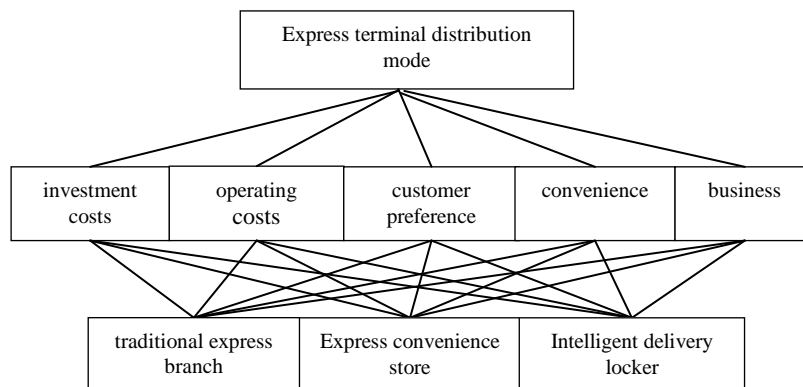


Figure 1 Express Terminal Service Mode

Upfront investment costs include site costs, renovation costs, software and hardware equipment costs, business expenses and initial fee, etc. Upfront investment is the issue of investors can't ignore depreciate, because construction costs directly affect cost recovery time. in the age of innovation, long payback period of investment also means higher risk.

The order from high upfront investment costs to low respectively is self-built intelligent locker, proprietary express convenience store, traditional express convenience store and renting intelligent locker.

Operating costs include venue rental fees, personnel expenses, water and electricity fees, taxes, operating margin, equipment depreciation and maintenance costs, and communication cost. The difference of water and electricity fees, business expenses and communication cost is not too big. Due to the cost-sharing of convenience store business, express convenience store operating costs is below express branch, but is higher than intelligent express locker. But the latter equipment depreciation and maintenance costs are higher than the other two models.

Customer preference refers to customer favorite way to receive and deliver express, is determined by customer characteristics. such as " otaku" may prefer intelligent express locker. Customers may tend to choose the traditional express branch send dispatch, high value, or delicate items, for easy inspection, and short distribution chain. Relative to the disorderly express branch, indifferent intelligent express locker, neat and full of life express convenience store is a better choice.

Customers convenient degree refers to the benefits of different modes of service to customers. Improve customer convenience degree helps to improve customer satisfaction, brand loyalty, thus increasing market share.

Customers convenient degree including processing time, inspection convenience, pick-up time elasticity and distance. Business conditions mean to the estimated volume, business development and terminal replication ability. Business is related to investment scale. Express convenience store business development ability is the most powerful, can promote the brand, expand the channels and other business.

The copy ability of cooperative express convenience store are better. Intelligent express locker has great difficulty to enter the dorm area. rent space is more troublesome.

V. CONCLUSION

SongJiang university town as an example, according to the characteristics of university town, from three aspects: cost, customer and management contrast in the university town feasible three terminal service mode (five forms), the traditional express branch, express convenience store (proprietary, cooperation), intelligent express ark (self-built, rent). The results show that cooperative express convenience store mode is the most appropriate choice now.

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