International Research Journal of Computer Science (IRJCS)
Issue 7, Volume 2 (July 2015)
ISSN: 2393-9842
www.irjcs.com

Research on A Model of City Joint Distribution for Small and Medium Electronic-business Enterprise

Hui Gao
The Department of Economic and Management,
HeZe University,China

Abstract： ***Distribution or self storage business alone gradually highlights the high cost, low efficiency drawbacks, how to carry out joint enterprises specialized joint distribution, which together form a dependable distribution model, the focus of both companies strive to explore, as well as scholars continue hot issues%。Functional structure of innovative e-commerce through joint warehousing and distribution centers, information technology to enhance service levels common warehouse distribution center, put forward based on common distribution model and operational flow of small electricity supplier logistics integration program to achieve its information hub to hub transition from the physical to promote e-commerce logistics and distribution scattered integration of resources, to provide electricity for small and medium common warehouse and common distribution of integrated and comprehensive service solutions***
Keyword: Electronic-business; City Joint Distribution;Information platform

1.INTRODUCTION

Commercial enterprises in the management and distribution of goods to adapt to different regions at different times and different $ consumer demand customer needs, the objective requirements of multi-species, small quantities of modern logistics services, high-frequency, also required to improve service levels, reduce logistics costs , which must be achieved through joint distribution logistics, through joint distribution of various resources to improve operational efficiency, to adapt to market changes, reduce logistics costs and logistics costs society as a whole until the level of the enterprise. At present, most small business enterprise joint distribution development is faced with a hard to find the library, currently built e-commerce businesses the Treasury coffers and demand mismatch, self-built high investment costs, logistics and logistics management system is not perfect low capacity bottlenecks.

This paper refers to the joint distribution joint distribution vertical supply chain, namely distribution of weaker business platform companies, partnerships, warehousing and logistics enterprises as the core of the express delivery business to improve transport efficiency established for the study of the distribution of yet forming system and mature system, especially for business cooperation and distribution and other aspects of the problem were not more in-depth study. On the one hand, domestic research focused on the distribution of common sense and common distribution model, and for the joint distribution pattern of e-commerce for small and medium enterprises, quantitative specific operations, economic analysis and distribution of interests in joint distribution of less. On the other hand, most studies consider several joint distribution and distribution enterprises, and not very common nowadays electronic business platform with the integration of research and positions of economic cooperation model.

2.BACKGROUND

Internationally, the success of e-commerce companies are based distribution center is the junction point platform for electronic business and logistics network combine to achieve key aspects of the logistics control. In the long term, the development of e-commerce business model does not support its self-built large-scale distribution centers, capital market investors will not allow it to slow down the pace of expansion under the yoke of the assets, thus proposed based on the joint distribution of small electricity supplier mode.

© 2014-15, IRJCS- All Rights Reserved

2.1 Joint Distribution of The Main Analysis

City for business enterprise joint distribution pattern of the main participants in the upstream business e-commerce platform to the core of the logistics and distribution warehousing and downstream courier companies.

2.1.1 Electronic-business Platform Enterprise

Joint distribution model, enterprise business platform refers to certain fixed capital into the e-commerce market and its own transaction platform and customer base, but did not create their own distribution team, only virtual marketing needs to be contracted out to a professional third-party logistics companies to improve better quality of customer service enterprises. They are studied in this paper the main target cities joint distribution pattern, since their own characteristics, can not be required to self-built logistics warehouse and distribution fleet and a series of required hardware and software facilities, so most of these companies with the warehouse were equipped with integrated logistics service providers to complete their business orders, to realize their own interests.

2.1.2 Distribution Enterprise Of Take Warehouse As A Core

Warehousing logistics and distribution business as the core of the operation as a joint distribution infrastructure, joint distribution activities constitute the nerve center for the implementation of joint distribution plays an important role. From the system point of view, the core of warehousing logistics and distribution business is a core part of the common distribution model is the basic function of the central activities of $ network combine a variety of logistics, not only the implementation of the general logistics functions, and more and more to achieve directing, coordinating, communicating information and other important functions, to improve the entire supply chain have a very important role.

Warehousing logistics and distribution business as the core used in the Joint Distribution related technical cooperation will each become a business alliance system, through its core hub function organic and modern equipment combination to achieve set of goods, storage, sorting, processing, distribution vehicles equipped with features such as intensive integration.

2.1.3 Express Delivery Enterprise

Downstream distribution is mainly responsible for the last kilometer of courier companies, their customers and end convergence warehousing logistics enterprises as the core, plays an important role in the joint distribution system. Of course, this mode of express delivery companies may be in the core of the logistics and distribution warehousing company's own distribution team, but also the Union other courier companies such as Stone one up, etc., which is responsible for the goods on time and efficient delivery $ $ accurately reach the hands of customers . One of the important aspects of the future of the supply chain and logistics support system is to develop core competitiveness electricity suppliers, end distribution capabilities and service capabilities end future core competitiveness.

2.2 Analysis On The Model Of City Joint Distribution For Small And Medium Electronic-Business Enterprise

For the current bottleneck of e-commerce city co-distribution business, relying on the core warehousing logistics and distribution of own resources, logistics and warehousing, will be small and medium commercial enterprises and logistics terminal business together, built for small and medium business enterprise joint distribution center city , from receiving an order to realize the delivery of the full integration of e-commerce distribution services; efficient transfer and sharing of information between the participating companies as a means to achieve the integration of multi-industry warehousing and distribution of resources, and to improve storage and distribution of resources utilization efficiency in reduce distribution costs while improving the quality of distribution services to achieve optimal allocation of logistics resources to better serve and promote the development of e-commerce and logistics industry upgrade formats to meet the business's multi-platform, multi-system, multi-species, personalized , low-cost and efficient market.

© 2014-15, IRJCS- All Rights Reserved

In general, this new distribution model is a common platform for electronic business enterprise, warehousing services based logistics company jointly set up joint courier industry distribution centers and joint distribution information platform for joint distribution deal with the goods. Specifically, it is the logistics enterprises to adopt computer network technology and modern hardware, software systems and advanced management tools, unified by courier companies will focus on each of the electricity supplier of goods to the joint distribution center for a series of orders received and processing, common storage, intelligent picking, route optimization, real-time scheduling, monitoring and early warning, timing, location, quantitative types of users to meet their demand for commodities. Customer information through a common distribution platform way to format text import order information, online check orders data, issued job instruction, check real-time inventory information, the logistics node status query, the query reconciliation information. Warehousing enterprises as the core logistics integrators through the use of warehouse management systems and transportation management systems to provide integrated value-added services and warehousing services for small and medium business enterprise.

Warehouse management system can provide customers with a more complete and comprehensive business process and financial management information. Transportation Management System through the transportation task scheduler receives $ $ status tracking procedure to determine the implementation status of the task, various aspects of the job guidance and intelligent optimization system, improve job accuracy and reduce error rates loading transport, while reducing job dependent on labor costs and personnel. This mode can either rely on the upstream business enterprise, become the logistics outsourcing partners, and can rely on the downstream of courier companies, a logistics courier Union% and Internet-based logistics company jointly Distribution Information Platform in the electricity supplier to warehouse enterprises as the core logistics integrators, courier companies and banks achieved between the full information sharing and efficient safeguards, so that internal and external resources to optimize the configuration, and logistics information flow rational flow of capital flow.

2.3 Mode of Operation

2.3.1 Integration Of Warehouse

For business enterprise of Joint Distribution warehouse with integrated services designed to provide customers one-stop warehousing and distribution services. As e-commerce back-end warehousing and distribution services, mainly to resolve with the seller of goods (set of goods, processing, sorting, picking, picking, packing) and the Organization for customer delivery. Due to the large amounts of space and storage needs specialized operations, distribution and requires a comprehensive network coverage and a large number of vehicles, resulting in the high cost of warehousing and distribution. Joint Distribution $ optimization by integrating warehousing and distribution, and partner combination, to jointly improve the e-commerce supply chain, in order to reduce storage and transportation costs, reduce the loss of sales opportunities and improve customer satisfaction.

2.3.2 Multi-warehouse and Multi-owner

Due to the rapid development of electronic business, seasonal, high elasticity of demand, when the need for the promotion of staff and stocks are very large, not sales staff and warehouse idle is a waste. However, the storage area of the larger commercial enterprises are more flexible storage, when market volatility makes it convenient to expand or reduce commodity stocks, is conducive to better allocation of resources. Warehousing enterprises as the core logistics integrators to use multiple warehouses complete logistics operation to provide sufficient storage space for the business enterprise to solve the electricity supplier seasonal sales inventory problems. Not independent among multiple warehouses, but fully consider allocating a logical relationship between the warehouse in warehouse management, a warehouse can be assigned to more than one owner or more clients, belonging to different owner of the goods can be stored together or stored separately , so that when sales peak height can easily mobilize personnel to prevent understaffed cargo backlog. Such business model can achieve "load shifting" effect.

© 2014-15, IRJCS- All Rights Reserved

2.3.3 Supports Multiple Formats Exist

Since the electricity supplier companies have to operate multiple formats, including clothing, cosmetics, food, drinks and so on. Different formats of commodities have different effects on different characteristics storage center operations. Common warehouse distribution center according to different volume, weight, properties, and storage requirements for commodity merchandise reasonable arrangements to the corresponding location, improve the efficiency of the warehouse shelves, while ensuring the rational use of rational distribution and warehouse stock space. When a customer orders received merchandise quickly to accurately locate and efficiently fulfill customer orders, and minimize picking time, improve the efficiency of order fulfillment, and depending on the product attributes and specific customer needs specific commodities packaging to ensure product quality to meet the diverse needs of different customers.

2.3.4 Professional Multi-Platform Management

Common distribution system consists of an open system interface processing platform and service customer portal composition, it provides a user-definable interface, from different entities, customers of different systems can be quickly and docking system. The system supports inventory management system to facilitate customer inquiries quickly inventory, rapid reconciliation, as well as transportation management system for transportation fleet, route and load optimization, efficient management.

2.3.5 Diversified Services

Joint Distribution for the electricity supplier will warehouse with integration services as the core of e-commerce business transaction services and derivative services to support other services for assistance, build a diversified service model. Provide a platform for trade among small and medium business enterprise, online payment, financing, insurance, operation promotion.

Future supply chain and logistics support system is to develop core competencies electricity supplier is one important aspect. End distribution capabilities and service capabilities end future core competitiveness. The operating mechanism of said common distribution model for e-commerce enterprises to build logistics system proposed future development of a new direction reasonable, businesses can choose according to their needs professional third party logistics company, shared warehousing, distribution and other information via specialized solutions, in order to achieve support decision-making, unified management purposes, so that their distribution space to increase the flow of goods, and ultimately consumer satisfaction with service delivery.

3. Joint Distribution Operation Process

For multilateral cooperation enterprise, from a single business platform, business enterprise of shipping, logistics and warehousing business inventories to express delivery companies, each link must have an efficient system to protect the joint distribution, the establishment of efficient distribution system to improve the competitiveness of enterprises, enhance the level of information technology services joint warehousing and distribution center, which has an important role to achieve the transition to an information hub from entities hub. Efficiency needs of the entire joint distribution system relies on a complete set of common operational processes and distribution systems, to promote e-commerce logistics and distribution scattered integration of resources, to achieve a seamless interface between the upstream business e-commerce sites and internal management information system providing common and shared warehousing and distribution solutions for the integration of multi-service small electricity providers.

3.1 Common Distribution System Operation

Joint distribution is a kind of scale to win the distribution model, the winning point is based on mutual cooperation and trust between the long-term business partnership, which is a benefit-sharing, risk-sharing model. Its system mode of operation as follows:

© 2014-15, IRJCS- All Rights Reserved

First, participation in joint distribution of small and medium business enterprise through a common distribution system interface to system information platform provides a list of $ cargo handling location, transport time and other special needs, the platform provides a summary of the orders for each business classification, and through the platform of information system interface-related information to the inventory management system.

Secondly, warehouse center will be picking, replenishment, shipping, inventory based on small electricity supplier orders. In addition, the platform will be made by the customer order-related information processing and generate the corresponding network model on the electronic map, and transfers the data to the transportation plan generating system, optimize the route calculated and displayed on the map, but also generate a distribution plan.

Finally, the platform will be vehicle scheduling result to the logistics process visual monitoring systems, logistics vehicle monitoring system will monitor the entire process, tracking the location of vehicles, loading conditions, vehicle transportation and other conditions remaining, and the transport of goods to participate in joint status report distribution business. Common information platform for the distribution system in accordance with the actual situation of the order costing, dunning and expenses and write-off management based on each company involved in a common distribution method of payment.

3.2 Common Distribution System Functional Structure Of The Process

3.2.1 Order Processing

Operational activities of joint distribution system, order information processing is not only the starting point for all operational activities, and is the core of all work activities. Quality and efficiency of information processing work orders, directly affect the quality of the work of other job distribution system and customer service levels.

3.2.2 Treasury Operations Management

Warehouse operations management activities involved in basic business processes, including: receiving process, flow shelves, picking process, replenishment process, delivery process, inventory processes. In the logistics center of the inside, efficiency and accuracy to save service costs, improve service quality plays a vital role. The container management as the core focus of the logistics center management, through the implementation and operation of cargo containers barcode management approach based bar code identification, to achieve the working unit of management, but this is the foundation of lean logistics center management. The entire storage process support purchase warehousing, inter library allocation, sales returns and different order types of storage, can realize the receipt process of tracking. According shelves demand, demand picking demand and on-site work distribution, division of work areas and work areas of different staff members, and will be include warehouse receiving area, storage area, quality inspection zone, directly lightering area and other functional areas division. The ability to define different businesses operating strategies for each product separately. In the library stage, with graphical review and further improve the accuracy for review.

3.2.3 Distribution Management

AWB generate joint distribution joint distribution is the key to business officer under orders to ship orders aggregated to provide checkpoint function of each order, the current position, volume and other information summary for monitoring, query the current vehicle information table, vehicle call information table, customer information table, map information tables, etc., its first customer delivery address zoning and Statistical Area shipment of goods to the size and weight, according to transport resources load balancing be flexible business matched to maximize the volume or weight The preferred conditions for the generation of goods consignment. Platform will be made by the customer order-related information processing and generate the corresponding network model on the electronic map, and transfers the data to the transportation plan generating system, optimize the route calculated and displayed on the map, generated distribution planning, vehicle scheduling management by, manual adjustment of a vehicle's intelligent scheduling and scheduling of operations, delivery personnel in accordance with the distribution conditions of the consignment and distribution will be completed in accordance with regional arrangements chosen goods transport vehicles, the path to arrange the order of the real-time status and posted online, so that customers in real time Learn execution of orders.

© 2014-15, IRJCS- All Rights Reserved

Finally, the platform will be vehicle scheduling result to the logistics process visual monitoring systems, logistics monitoring system using the map interface, full monitoring of vehicles, tracking the location of vehicles, loading conditions, vehicle transportation and other conditions remaining, and status reports to the transport of goods participation in a common distribution businesses. You can immediately see the trajectory of the vehicle and the current traveling location on a map, and through the intelligent terminal device waybill management, timely feedback waybill information and exceptions, so that timely adjustments and issued new instructions, enabling each Delivery unified downstream business and management vehicles% increase vehicle load factors and security operations, so as to enhance the operating efficiency of the entire distribution process. Logistics and distribution system monitoring common information platform in accordance with the actual situation of the order costing, dunning and expenses and write-off management based on each company involved in a common distribution method of payment. Delivery personnel use handheld data collection terminal site in Ship receipt the person who signed the first time, the time of receipt, the receipt case entry, transmitted back to the server via GPRS, to achieve real-time record of the case. When the order after receipt of the goods delivery to customers, were back to a single collection, the client back to a single case of actual receipt in the system based on the original amount of the final confirmation of actual receipt and time of receipt.

5.Conlcuson

Joint Distribution of electronic business platform for enterprise logistics enterprises as the junction point is a business platform and distribution terminal business together. Relying storage base $ branding and service team, to build for the booming e-commerce industry and integrated logistics operating platform for large scale, strong growth, high profit industry professional logistics service system, information system as the core, electrical provide a common warehouse and common distribution of integrated multi-service solutions to meet the enterprise's multi-platform, multi-system, multi-species, personalized, low cost and high efficiency of the market.

From a macro, its flexible features and flexibility of the organization to save a lot of cost, reliable service support and high-quality service levels, to play the greatest efficiency of human, financial, material and other logistics resources. From the micro perspective, the joint distribution of the e-commerce market to meet the larger product distribution for low-volume, multi-batch, more variety and immediacy of the needs of enterprises integrate resources to improve distribution efficiency, reduce distribution costs and improve market competitiveness force.

Implemented by joint distribution, can effectively clear the e-commerce distribution bottlenecks, promoting e-commerce distribution business innovation, to enhance e-commerce distribution efficiency of resource use, improve e-commerce distribution resource allocation system, and promote e-commerce logistics format upgrade, but also for e-commerce distribution resource optimization to provide a new way and ideas. In addition, the joint distribution can optimize delivery routes to improve transport conditions, reduce traffic congestion and pollution and promote sustainable development of society.

6.Reference

[1] Kent N. Gourdin. Global Logistics Management[M]. Competitive Advantage for the New Millennium. Blackwell Publishers Ltd. 2001

[2] C Weber, C Hendrickson. The reverse logistics research based on 4PL in E-commerce[J]. World Academic Union, 2009, (3): 95-99

[3] Lixin, Zhang. An analysis on the relationship between modern logistics and e-commerce[J]. Inst. of Elec. and Elec. Eng. Computer Society, 2008, (1): 1381-1384

[4] Chenghua, Shi. Research on the development of logistics based on E-commerce[J]. Inst. of Elec. and Elec. Eng. Computer Society, 2008, (2): 1563-1570

[5] Tennessee State University. Research of TPL [J]. Journal of Business 2003：10-18

[6] Kaplinsky R.，Morris M.. A handbook for value chain [J].research for IDRC，2002

© 2014-15, IRJCS- All Rights Reserved

[7] JR, Stock, DM, Lambert. Study of logistics management model based on e-commerce [J]. IEEE Computer Society, 2010, (6): 610-613

[8] Mezgar, Kovacs G. Coordination of SME production through a cooperative network[J].Journal of Intelligent Manufacturing, 1998.

[9] Ricardo C, Christina C，Reyes G. References architectures for enterprise integration[J]. TheJournal Systems and Software, 2001.

[10] Jinmin HPaul G. Conceptual framework and architecture for service mediating workflow management [J].Information and Software Technology, 2003.

[11] Jahn H, Fischer M，Zimmermann M. An approach for the ascertainment of Profit shares for network participants[J].Sixth IFIP Working Conference on Virtual enterprise Collaborative Networks and their Breeding Environments, 2005.

[12]Haul Lee,Seungin Whang. Winning the last mile of E-Commerce[J]. McGraw. Hill Companies，Inc，2002，106-121

BIOGRAPHIES

Hui Gao Working as an Asst prof in Department of Economic and Management,HeZe University，Shandong,China. He has 4 years of teaching experience and he has published many research papers in international and national journals.

© 2014-15, IRJCS- All Rights Reserved