ANALYSIS OF VALUE-ADDED PROCESS BASED ON CUSTOMER-ORIENTED DESIGN IN LOGISTICS

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ABSTRACT. The design and operation of the various logistic procedures must be customer-oriented, since the logistics process of a manufacturing business is a value-added process, in which the value added proceeds with each logistic procedure. This paper deals with value-added process within a logistic system for Yurun Food Company, summarizing the feature on time value of logistics and space value of logistics. In conclusion, a thought of moving towards integration as the company did is required. On the one hand, it reduces the logistics costs, thus lowering the total cost of the firm; on the other hand, it extends rapid logistics service to meet the customer’s need, resulting in enhancing the core competitiveness of a manufacturing enterprises.

Keywords: Logistics; Value-added Process; Yurun Food Co.

1. Introduction. With rapid development in economy, technology and business management, more and more manufacturing businesses focus on the third profits source - logistics. This is because the room to make a further cost reduction becomes smaller and smaller in the producing and selling area, while many businesses exploit the potential of logistics links like transportation, warehousing, distribution and stocking process. Whether the function of logistics system is reasonable, it does not depend on how much work the logistics has done but how much cost it has saved for the enterprise. From the point of view of manufacturing to distribution, the least operation makes the best logistics.

Michael Porter defines the value chain as a collection of a series of valuable activities during the processes of designing, producing, selling, distributing, and other auxiliary activities. Logistics is a value-added chain, i.e. logistics is not only a process that connects the input and output of the products, but also a process of value-adding, and
the value of its final outputs are measured and confirmed by the external consumers (Sun and Song, 2003). As pointed out by Carl Marx's Capital Cycle Theory (G-W-G '), from the W to G ' is a thrilling movement, only when this action moves successfully can the exchange of goods achieve, and can the social reproduction be repeated. Therefore, the logistics process must be customer-oriented ultimately by delivering customer value. Therefore, logistics process is a service network built for needs of the target customers. To provide the customers with services beyond the basic logistics functions is to offer them innovative, unconventional, and customers-satisfied and other characteristics-possessed logistics services.

In summary, the value-added process is perceived as a whole system with the logistics from the procurement of raw materials to the final delivery of the finished good to the end customers. The logistics value-added processes exist in every aspect, which constitute the logistics value chain. Food processing is a type of production which shows how the value added processes take place.

2. Value-added Processes Based on Time Value and Space Value in Yurun’s Logistic System. Yurun Food Co., Ltd. is one of the biggest manufacturers of meat-packing in China, which is featured in time value of logistics and space value of logistics. As far as time value of logistics is concerned, the distinctive feature of the meat-packing is to stay fresh. For this reason, the selling price is directly proportional to the degree of freshness to a certain extent. If freshness of the food reduces, the original value of the products cannot be fully realized, let alone any time value of logistics. However, the added value of the logistics process is obtained by shortening the time duration of the logistics. Apparently, shortening the logistics duration not only reduces the logistics value loss and material consumption, but also accelerates the turnover rate and save money.

In terms of space value of logistics, as manufacturers and consumers of the same products are distributed in different geographical areas, the value created by a change in this spatial variation is known as “logistics space value”. The space value of logistics is obtained from the logistics which transports the products from the lower-value regions (the Yurun meat-packing base) to the higher-value regions (the Yurun meat-packing sales areas)[2]. This is because of the existence of the various structures of the industry and the social division of labor force, which causes the same meat-packing products, appear different prices in different areas. Logistics has changed the geographical location of the products, thus achieved the added-value.

The value-added processes of the logistics have speeded up the above time and spatial effects, as well as the change of the morphological effects and the transformation of ownership of the goods (as shown in Figure 1). The processing sectors of the logistics change the morphology of the goods. However, logistics makes the goods into commodities, and marketing makes the transformation of ownership. All these value-added processes are inseparable from the logistics processes.
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To achieve the above four aspects of logistics value-added requirements, a highly efficient logistic system is required that puts the original dispersive logistics resources to re-integration and sets up a special logistics department or logistics subsidiary company to reinforce the whole processing management in sequence of production, supply and marketing. As a result, Yurun sets up a logistics subsidiary company, employing modern organizational and management practices to achieve the accuracy and timeliness of the logistics.

3. Customer-oriented Design in Practice. The value-added processes vary within a supply chain, as the case in point for Yurun meat-packing company. (as shown in Figure 2).

The added value of logistics from the road map is found to be reflected by the added value of the products, together with the products are blended in logistic services. Because a product development is to meet requirements of customers, a design of logistic process is also to meet the needs of the customers, i.e. be customer-oriented. However, transportation, storage, loading and unloading, packing, distribution and other services are provided by a subsidiary company attached to Yurun Meat-packing Company with the permission of parent company to execute the value-added process which is gone through as follows:
At first, the optimization of transport routes, the use of multimodal transport and the enforcement of fleet management have met the requirements of safety, fastness, punctuality and low cost during transportation, aimed at the space effects and increased the added value of the logistics.

Next, during the process of storage, it conducts professional inventory process is design to minimize its inventory capacity and space in compliance with the conditions of the markets and the demands of consumers. This allows the enterprise to reduce the cost and the advantages of warehousing are well expressed.

Afterward, the operations of plain packaging, loading and unloading have ameliorated the morphological and spatial effects of the products, and the logistic departments are bound to contribute the necessary investment, all these factors contribute to increasing the value of the products.

And finally, from the warehouse in-out management, to staff and vehicle arrangement management, logistics expenses management, and logistic external business operations management, all these managements are reflected by the Logistic Enterprise Resource Planning in Yurun Company, which promotes the scientific convergence of all the steps of logistics and improves the working efficiency of logistics.

Furthermore, the subsidiary of the logistic company serving these meat-packing firms makes their service of logistics the First Class Level among the same industry through the using of the advanced transportation equipments tracking system which covers the whole continent to track the logistics information during the whole journey.

To sum up, the following formula is found:

\[ T = \sum W_i * F_i \]

Where \( T \) refers to the total value added during logistics
\( W_i \) refers to the proportion of each added value procedure
\( F_i \) refers to the quantity of each added value procedure

It is duty for the logistics subsidiary company to integrate the procedures of transportation, storage, loading and unloading, processing, distribution, information-collecting into an integrated operation in direction global development. In fact, the purpose of using advanced technology and modern management tools of the value chains is to maximize the realization of functional integration in technology and management integration to break away from the traditional functional organization structure in the hope of the best operating results of the entire logistics process. Also the company will better reduce costs and add value. The basic idea is to minimize the total cost and to satisfy the customers' demands to the fullest extent.

Therefore, the logistics subsidiary company of the Yurun Meat-packing company is able to make the logistics operations more effective through the designing of more efficient logistics value chains, through the sharing of information between the various logistics procedures of the value chains, and through the inventory availability and good coordination of production.

However, the re-optimization of logistics processes are required for further analysis and transformation of the existing nodes of the workflow in the value chain to adapt to the new enterprise value chain, thereby a efficiency and effectiveness of the entire value
chain of the enterprise improves (Zhou, 2003).

   It is required that an optimization of the business processes follow those principles:
1. To unify the customers' satisfaction in and beyond the value chain
2. To value the optimization of the entire process
3. To achieve the information sharing
4. To reduce the staff members and give full play to the employee collaboration

   Specific practices go along this way. Eliminate the non-value added activities and reduce waste, including the waste of transportation, the waste of distribution, the waste of inventory and the waste of incompleteness and damages. Simplify the necessary activities. Integrate tasks, including tasks from the aspects of work, teamwork and customers. Achieve the automation of workflow tasks (Zhou, 2003).

   In addition, it further establishes the IT support systems. The information sharing is an important way to improve and strengthen the operational efficiency of the value chain. Preeminent IT support system enables the logistics companies to capture market information quickly, and conduct the information feedbacks in the entire value chain of the logistics network within the enterprise, thereby eliminating the information distortions. Only when the advanced information and communication technology have been operated in the entire value chain can it execute the coordinated management of the value chain effectively, so that the operation of each node can achieve the synchronization and harmonization.

4. Conclusion. The added value of logistics is designed to be customer-oriented with value-added services applied in the conventional process of logistics, and more importantly, it is to form a logistics system. Therefore, the added value of logistics is taken as a whole, so that advanced technology and modern value chain management tools can be applied to realize the logistics process to the greatest degree both in the aspects of function and management achieving the goal of management integration. At the same time, the expansion of value-added logistics scope help the value-added procedures of logistics to form an organic whole, which reduce the loss of funds and achieve the high efficiency and lower cost of the logistics, thus enhancing the core competitiveness of the enterprise.

REFERENCES


