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THE ROLE OF THIRD-PARTY LOGISTICS (3PL) IN LOGISTICS ACTIVITIES

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Abstract

Global market provides a lot of opportunities in the business of expanding its market (especially international market), on the other hand, it also increase challenges for the company to face the global competition otherwise the company and its products will be marginalized by the competitors. The main current issue faced by the company is about managing the logistics activities including inbound logistics, outbound logistic and also transportation/distribution. These logistic activities could expense lot of money in total logistic cost; therefore it is essential to always analyze the current situation to improve the logistic performance. The logistic performance can be increased by reducing the cost of inbound and outbound activities such as warehousing cost, inventory carrying cost and transportation cost and the alternative way to reduce total logistics cost is by doing outsourcing or Third-Party Logistics (3PL) on that activities. This paper explores the role of third party logistics on logistics activities. It is concluded that third-Party Logistics (3PL) leads most companies improve their logistics performance especially in term of reducing cost due to its benefits such as advanced technology, specialization and experiences consideration.

Keywords: Outsourcing, Third-Party Logistic, warehouse, transportation

INTRODUCTION

Logistics is concerned with getting products or services where they are required, when they are needed and it is occurring around the world through the process and product chain from original point where raw material are supplied from supplier to end point where the finished goods are consumed by customers. The main aim of managing the logistic effectively is providing the customer satisfaction. Logistic includes the collaboration, coordination and integration of information, transportation, inventory, warehousing, material handling and packaging (Howerson and Chen, 1991). They also revealed that logistics accounts for one of the highest cost of doing business, just behind after material cost or goods sold in wholesaling cost. Coyle, Bardi and Langley in *The Management of Business Logistics* (1992) stated that Logistics becomes more important recently because it accounts for twenty-five percent average of total business cost. It is obvious that logistics is very expensive. In term of managing the logistics effectively and efficient in the business of declining the cost of transportation, warehousing and production optimizing to meet the global demand (local and international demand), it is important to always analyze the current logistics system to increase the productivity: benefit, cost reduction, optimize the workforces and increase the performance is the main purpose, customer satisfaction. This paper discuss any possibilities to optimize the logistic activities in term of reducing transportation cost, warehousing cost to meet the customer's orders using third party logistics (3PL).

According to the real condition that firm has to improve the efficiencies in term of logistics activities such as warehousing, transportation and distribution, demand management and inventory control, there are some factors that could be considered by decision maker before decide if it is reliable for the firm's logistics to do some outsourcing in its logistics activities or just do the previous policy to serve the customers. There are some factors influencing the overall logistics activities in term of reducing the total cost of logistics such as warehousing, transportation and inventory management (Coyle, Bardi and Langley, 1992). The main issue to solve the firm's problems is about how to optimize the logistics activities by minimizing the cost of logistics and improving the customer service level. The alternative solution of this problem could be adopting the Third-Party Logistics (3PL) or outsourcing in the firms' inbound logistics activities and the outbound logistics activities.



The Third-Party Logistics

Basically, a third-party logistics can be defined as external firms (suppliers) which offer all parts of logistics activities, inbound and outbound (Coyte, Bardi and Langley, 2003). The 3PL performs services such as warehousing, transportation, distribution, financial services and so on. The global business currently has advantages from their logistics outsourcing in term of reducing the total logistics cost, for instance, outsourcing NHS logistics can reduce the purchasing activities to private firm up to 14 percent (Saell, 2006). Utilization of 3PL in supply chain activities may give advantages to the company in term of 3PL specialization in scale, know-how, searching ability, IT skills and the risk of uncertain business environment (Tazuka, 2011). Therefore, the role of 3PL provider selection is the important aspect in considering 3PL utilization. There are some research investigated the relationship between the use of 3PL and logistics performance, for instance, it is investigated by Boyson, Corsi, & Rabinovich (1999) and found that the relationship between business activities and 3PL by surveyed logistics managers are exist. They found that the prerequisites for successful 3PL operations are: non-biased identification of 3PL providers, evaluation of costs and improvements, sound contracts, centralized control, and proper monitoring of the 3PL operations.

Recently, third-party logistics is broadly defined in functions as an outsourced provider which manages all or part of organization/company logistics requirements like product consolidation, location and transportation perform, inbound and outbound freight, warehousing, order fulfillment and distribution activities. Results from prior research indicates that there is a positive development within organization or company which use third-party logistics in their logistics activities (Sohail and Sohail, 2003). Third-party logistics providers also enhance customers (organization or company) to become more leading, competitive and profitable by providing their expertise and experience in logistics activities. For example, Liebl, et. al (1993) reported that most firms which outsourced their logistics activities have saved 30 to 40 per cent of logistics costs.

Third-Party Logistics in Warehousing

A warehouse is originally a place to store inventory, but in current logistics system development, the role of warehousing has been changed in term of leveling the productivity and the flowing of raw material, parts and finished goods as well as the consolidation terminals such as break bulk and cross-dock facilities (Bowersox and Closs, 1986: 394). Sink, Langley, & Gibson (1996) shows that the most common activities of 3PLs that are outsourced are: transportation, warehousing, inventory management, order processing, information systems, and packaging. Warehousing also give several value adding roles in logistic system such as transportation consolidation, product mixing, service and safety stock. However, having own storages or warehouses mean that the costs related to the storage activities such as inventory carrying cost (capital inventory cost, obsolesces, damage, security cost and insurance), warehousing cost (maintenance cost, warehousing capital cost) will also increase. If the firm has several warehouses which must be covered by central plant to serve local and international demand means that the total cost of inventory and warehousing cost will increase significantly. By outsourcing the warehouses to the third-party the total cost of warehousing cost included inventory within the warehouse can be reduced in term of reducing risk of damages, insurance and the most expensive cost: warehouse's capital and maintenance cost because the third-party will provide as public or contract warehousing business. The third-party in warehouse based give the firm a big opportunity to expand into broader market, not just locally but internationally as well because the firm does not consider any more how to provide the storages or warehouses to the market (3PL provides them). Example of this such logistics firms includes DCS Logistic, USCO and EXFL.

Previous research about usage of third-party logistics providers in warehousing system reported that there is a better service received by customers or organization by using third-party warehousing compared with company-owned company. For instance, Bernard and Maltz (1992) indicated that the usage of third-party warehousing is viable and worth for most US companies after calculating perceived service and cost saving. Moreover, a present study by the International Warehousing Logistics Association reported that total public warehousing space was increasing by 12 to 13 percent and total contract space was increasing by 18 to 20 percent and it is expected to be provided by third-party warehousing (Cooke, 1998).



Third-Party Logistics In Transportation

The services provided by 3PLs have been summarized in various articles. Sisk, Langley, & Gibson (1996) show that the most common activities of 3PLs that are outsourced are transportation, warehousing, inventory management, order processing, information systems, and packaging. Coyle et al. (1996) suggest five types of 3PL suppliers: transportation, warehousing/distribution, forwarding, shipper/management and financial/information based. Bardi and Tracey (1991) and Lieb and Randall (1996) analyzed firms using outsourced services (rather than 3PLs) to determine the extent to which they used the services of outsourcing partners. According to Bardi and Tracey (1991), the outsourcing of logistics functions is becoming increasingly common, and the most commonly outsourced functions are those that are non-core, routine-based, or asset based. To solve the transportation problem faced by the firm in term of managing the transport vehicle, transportation workforces and determining the modes suited with the products and markets, the Third-Party outbound logistics could be the alternative solution.

The 3PL provides a large scale of transports and have worldwide connection around the world such as FedEx Logistics, UPS Logistics and Schneider Logistics are "major division of large transportation" (Coyle, Bardi and Langley, 2003: 426). The decision to outsource transportation to private logistics services will reduce transportation cost and generate the efficiencies (Bardi and Tracey, 1991) because the firm does not provide the transports or vehicles any more for outbound and inbound transportation. The cost efficiency also come from the cost offered by third-party logistics companies which offer competitive cost because they specialize their business in this area and competition among them. According to the research published by Georgia Tech University, some firms which use third-party logistics in their transportation could reduce up to 7 percent in logistics cost (Coyle, Bardi and Novack, 2006: 420). Some aspects can be reduced by outsourcing transportation are operating cost (fuel and wages) and overhead cost (salaries and administration).

Third-Party Logistics In Inbound Transportation

The effective supply chain management requires a good coordination to provide materials, parts and components as the main raw materials of production process (Coyle, Bardi and Novack, 2006: 420). Lack of coordination causes inefficiencies especially in inventory accumulation when over raw materials and bottleneck in production process if the raw materials received late. That is the reason why transportation issue should have a higher priority to be managed. Using third party logistics provider transportation in inbound logistics is becoming a standard policy in some developed countries. Choosing carrier options for inbound logistics activities is a complex task that impact significantly of the product cost on end customers (Cochran and Ramanujam, 2006). To minimize the risks of inefficiencies, the firm could use third-party logistics to manage the transportation from supplier (other manufacturer) to the firm.

Third-party logistics has already had specialization in providing the transportation service in a huge business include the raw materials or assembly products' carrying process from supplier to the manufacturing department. Besides using appropriate vehicles based on the materials carried, third party logistic companies also use high technology and information system in their operation. The 2001 survey result that most 3PL provided information system and technology such as shipment tracking/tracing, Web-enabled communication and transportation-logistic electronic markets (Langley, Allen and Tyndall, 2001). These 3PL capabilities will guarantee the firm that every single materials will be sent safely, precisely and in time even though the markets is in the abroad.

Information Technology in Third-Party Logistics

Information technology is a crucial component in term of developing logistics services in a customized supply chain environment. An investigated research about information technology used in logistics activities has been made intensively (Evangelista & Sweeney, 2006; Gammelgaard & Larson, 2001; VanHock, 2001). Porter and Millar (1985) suggested that the diffusion of information technology into the activities of the supply chain strengthened its value-creating potential. According to Brandyberry, Rai, & White (1999), information technology has the potential power to manage the flow and to influence many of the dimensions of the supply chain such as cost, quality, delivery,



flexibility and responsiveness, and thereby increase the profits of the firm. As noted by Sawage (2003), information technological efforts has become a critical variable in a highly competitive business. Information technology seems of critical importance in determining the final success in managing the supply chain and is a necessary factor in the survival of supply chain management projects (Auramo, Kaurtmaa, & Tanskanen, 2005; Handfield, 1999).

One of the advantages of information technology is about the way to communicate. For many companies, email is the principal means of communication between employees, suppliers and customers. Email was one of the early drivers of the Internet, providing a simple and inexpensive means to communicate. Over the years, a number of other communications tools have also evolved, allowing staff to communicate protocol (VOIP) telephones and smart-phones offer even more high-tech ways for employees to communicate.

The other advantage is data management. The days of large file rooms, rows of filing cabinets and the mailing of the documents is fading fast. Today, most companies store digital versions of documents on servers and storage devices. These documents become instantly available to everyone in the company, regardless of their geographical location. Companies are able to store and maintain a tremendous amount of historical data economically, and employees benefit from immediate access to the documents they need.

Companies are using information technology to improve the way they design and manage customer relationships. Customer Relationship Management (CRM) systems capture each interaction between company and customers. As a customer gives a call center with an issue, the customer support representative will be able immediately to see what the customer has purchased, view shipping information, call up the training manual for that item and effectively respond to the issue. The use of effective information technology produce a better service to customers and results more focused experience that could give the company benefits from improved productivity.

CONCLUSION

It is obvious that logistics process is very expensive to be held by the firm itself. The high cost of logistics might be because the firm had to also manage the logistics activities such as warehousing, inbound and outbound transportation besides managing the production process. Consequently, the total cost of logistics increase in term of maintaining the transport's vehicles, built and maintains the warehouse, pay the transport and warehouse salary and providing IT. Therefore, it would be better for the firm to consider using outsourced companies or Third-Party Logistics (3PL) providers to deal with logistics activities. Third-party logistics specialization and capabilities in their area especially in warehousing and transportation (inbound and outbound) which is supported by technology and information system will reduce inefficiencies comparing with owned-logistics activities and also guarantee the shipment (outbound and inbound) from supplier to the firm and from the firm to the customers. By using the 3PL, the expansion to broader markets and global competitiveness could be achieved in the short time. Moreover, comparing with owned-logistics activities, using third-party logistics will provide a significant increase in profit and improvement of customer service level. As final recommendation, it is also suggested if the third party logistics providers are used, it should not be single third-party Logistics Company to optm the competitiveness and to avoid dominant single player of third-party Logistics Company.

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