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FACTORS TO CONSIDER FOR OUTSOURCING DECISIONS IN SUPPLY CHAIN MANAGEMENT

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Abstract

Outsourcing is one of the most discussed and also widely applied methods in today's business world. Outsourcing strategy has found effective applications especially in the information technology and the logistics (supply chain management) areas. The basic factors that cause "outsourcing" being widely preferred by managers are the cost advantage, insufficient expertise in different specialty areas, desire to focus on core activities, and desire to increase efficiency. Although the general aptitude emphasizes the advantages of outsourcing, there are some researchers against it because of the disadvantages and risks that it contains.

The logistics outsourcing, which is also named as "third party logistics – 3PL" in literature, includes the functions of the supply chain management (such as warehousing, transportation, and inventory management), being performed by a specialized logistics firm, outside of the company. This study examines the advantages and disadvantages of outsourcing in supply chains especially in logistics sector and aims to come up with a list of factors and their importance order required for successful outsourcing decisions, besides the risks and possible problems that could be faced during the application of it.

Keywords: Outsourcing, Supply chain management, Outsourcing Logistics, 3rd Party Logistics, 3PL

1. Introduction

The general purpose of the supply chain management can be described as maintaining the right products and/or resources at the right place at the right time, in order to support the general target of profit maximization. Especially after the 1990s, as a result of the fast development in information technologies, companies concentrated on increasing their efficiencies (Siems, 2005). At the same time, the increasing globalization effect forces companies to gain competitive advantage in speed, flexibility and cost, in order to survive in this intensified competitive environment. Besides the customers' increasing demands, the increasing global economic crisis cause increase in the risks of companies that they are faced with. As a result of these factors, companies began to make radical changes in their production, marketing and management structures. In order to adapt to the changes, to be less-affected from the fluctuations, and to benefit from the newest and updated technology and knowledge, companies tend to outsource some functions (Mersin, 2004).

If we are to make a definition, the main concept of outsourcing is quite clear: It is the assignment of a "third-party" supplier (either a person or a company) to perform a task or a function, on behalf of the mother company. Although outsourcing has been used (and especially preferred for the operations, which are not directly related with the core businesses of the companies), the discussions about the advantages and disadvantages of this application have also been continued.

2. Outsourcing

Outsourcing simply refers to the operations and functions which are performed by third parties, out from the company, that are not the workers of the company. When we look at the definitions in the literature; Outsourcing is the transfer of operations about some business processes to a service provider outside of the company, or fulfillment of some operations by authorized third-parties (Polhill, 2004). On the other side, outsourcing, which is the use of suppliers out of the company during the design, production, transportation and service phases, should not be confused with the contract manufacturing (Reese, 2005). Outsourced functions are generally the ones which are not directly related with the core-business of the company. The main reason for this situation is that, companies do not want to invest their scarce resources (such as the capital, human resources, technology and facilities) into the areas that are not directly related with their core businesses (Craig, 2005).

The services supplied by the third-parties generally divided into two categories: Supportive services related with technology and information systems, and services related with business processes. The first group contains the services such as electronic commerce, network infrastructure, software and its applications; telecommunications web site preparation and hosting. The business processes in the second group includes the customer relationship management (CRM), finance and accounting, human resources management, procurement, logistics and supply chain management, and security services (Polhill, 2004).

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2.1. Why outsourcing?

The increasing competitive environment in today's business world caused the companies to turn their attention to increase their competitive advantage in their core business areas. "Core competency" term is used to identify the ability of a company which differs itself from its competitors and which provides a competitive advantage. Honda's specialization in motor production or Sony's capability of making very small equipments can be given as examples for this definition.

As the companies design all the targets and processes so as to support and develop their core competencies, they will operate more efficiently (Mersin, 2004). According to this approach, all the business processes which are not directly related with the core business of the company, or all the processes which can cause to loose the core competency, can be outsourced.

By outsourcing the functions related with the non-core business, companies strategically focus on their core competency areas and main business functions. By doing so, they can increase efficiency in the indirect functions where they do not have competitive advantage, they become able to take precautions to decrease costs, they can fulfill the required specialists and other human resources, and also can fulfill the required legal procedures, and finally, they can restructure the business processes. Besides the above advantages, in order to operate more elastically, to decrease the labor costs and to make less investment in the plants and equipments, companies started to use outsourcing more and more. In the United States, the suppliers' share in the cost of goods sold is expected to increase up to 43% from 37%, within two years (Reese, 2005).

3. Outsourcing the supply chain management:

Logistics services are either fulfilled by in-house providers of the company or by outsourcing to the third-party logistics companies. In-house logistics solutions are usually asset-based (i.e. established by the company's own resources) and operates as a department or a division of the company, to carry out the transportation, forwarding, warehousing, inventory management and the necessary information technology required for these functions. Third-party logistics company (3PL) is an independent stand-alone entity apart from the company, which has its own facilities and transportation fleet, in order to maintain logistics services to other companies.

Outsourcing in logistics means to have a specialized 3PL company to make transportation, inventory management, order processing, information systems management, packaging and managing all the sub-systems related with these functions. Logistics services are witnessing a considerable expansion of 3PLs, primarily because companies, including e-merchants, prefer to outsource logistics functions. In today's business world, companies heavily concentrate on their core competencies, in order to survive under the global competition. As a result of this incline, more and more companies start to outsource the secondary functions, so as to serve their customers with the best logistics support services. The third party logistics services providers are said to be "... interested in investing in assets, dedicating capacity and personnel, customizing information systems and communications in order to improve the productivity and customer satisfaction of their manufacturing and distributing clients" (Sink, Langley & Gibson, 1996).

According to the United States E-Commerce and Development Report (2001), the remarkable growth of logistics outsourcing has been attributed to a number of factors:

- 1) Many companies have installed various types of applications to optimize their in-house logistics functions, and these applications are tending to become increasingly sophisticated and complex. Some companies are unable to cope with the changes and have responded by outsourcing the provision of the applications to specialized technology companies. In other cases, companies have simply not yet installed any logistics applications and outsourcing has been a convenient short cut.
- 2) A second factor is companies' desire to concentrate their resources and competencies on their core businesses.
- 3) A third factor is the avoidance of sunk costs and risks, since outsourcing eliminates the need to incur costs on training logistics staff and acquiring warehouses, equipment and hardware.
- 4) Fourth, for a start-up company or a company that is expanding quickly, outsourcing allows it to expand the volume of its business quickly with minimum investments, simply by relying on third-party facilities and services.
- 5) Fifth, by providing services to several firms, 3PLs are in a position to develop large databases and other information that an outsourcing firm can access at lower cost than if it were to collect the same data itself.

In today's business world, all the supply chain functions, including the management function, could be outsourced. According to a research, which was performed by the Accenture Consulting firm, the number of companies outsourcing the logistic functions to 3PL companies, doubled between the years 1991 and 2001 (Sanders & Locke, 2005).

In United States in 1995, there were "so many trucks but very few job", which means that there was excess capacity, in other words the capacity usage ratio was quite low. On the other side, when we came to the year 2005, the capacity usage ratio of the logistics companies fairly increased. This situation is explained by the logistics outsourcing because, as the companies closed their own in-house logistics departments and outsource their logistics functions, the productivity and capacity usage ratios of the 3PL logistics companies increased. Similarly, the

decrease in the supply chain and logistics expenses share in the gross domestic product (GDP) from 10.4% to 8.6% during this period (1995-2005) was also explained by this productivity increase (3PL Annual Study, 2005).

The above mentioned study also identifies the factors that influence the logistics executives' business. According to the executives, the major factors affecting their businesses are: pressure to reduce cost, pressure to enhance customer service, the globalization effect, and developments in information technologies.

Despite the promising benefits of outsourcing, companies need to carry out a proper assessment of the scope and timing of outsourcing and also the choice of 3PL firm that they are going to choose. An "outsourcing model" chosen for today's needs may become insufficient against the new and developing requirements of tomorrow. Because of this, the outsourcing contracts should be clearly understood and evaluated according to the company's targets. Consequently, a company must compare the costs and advantages of providing logistics functions in-house with those of outsourcing.

3.1. Outsourcing Strategy:

Although there are lots of successful examples of outsourcing, there is not a "one size that fits all" strategy in this area. The chosen strategy should be dynamic and flexible so as to meet the current and future needs of the company. Besides this, different strategies could be required for different functions, operations and processes of the company.

The most important and the basic point in an outsourcing strategy is the level of authorization of the 3PL firm, in other words, determining the duties and responsibilities assigned to the logistics company. Looking from the reverse angle, it is the identification of which processes are in the scope of "core business" concept that should be solved within the company using its own resources. Sanders and Locke (2005) grouped outsourcing arrangements into four categories, according to the scope of the outsourced functions: "*At one extreme, outsourcing can involve only one of the many tasks that comprise an entire operation or process... At another extreme, it can involve outsourcing development, implementation, management, and even strategic direction of the entire operation or process*". According to the level of the responsibilities assigned to the 3PL company, the four groups are as below, from least to most vendor responsibility:

- 1) **Out-tasking:** This is the assignment of a specific task to an outside logistics company. The scope is limited with the specified task and the responsibility of the 3PL company is limited only with that task. A simple example might be a manufacturing company hiring a trucking firm for transportation purposes.
- 2) **Co-Managed Services:** Although the scope of the outsourced operation or process is greater, the overall operation and function still remains under the direct control of the company. The company (customer) and the vendor (3PL company) share responsibility of the operation and they work in collaboration, but the vendor generally have less strategic significance. An example might be the inventory management, being carried by the vendor: The 3PL company usually observes and monitors the inventory levels and might procure the required product or the raw material. On the other hand the customer still controls the inventory plans. Risks associated with the poor vendor performance are still small, since the vendor is operating the less strategic tasks.
- 3) **Managed Services:** The 3PL company is responsible for design, implementation and management of an end-to-end solution of a complete function, including the equipment, facilities, staffing, software, implementation, management and the improvement of the system. In this type of outsourcing, companies generally expect the vendors to have deep industry knowledge and to meet the necessary rulings and standards. This kind of agreement not only enables a company to focus on its core business, but also to benefit from the vendor's unique skills and experience in that operation. On the other side, this kind of relationship includes greater business risks because of the dependence to the vendor.
- 4) **Full Outsourcing / Business Process Outsourcing-BPO:** In this kind of relationship, the customer assigns all the responsibility of design, implementation, management and even the strategic direction of a function, to the third party logistics company. This relationship includes and requires a customization at high levels. Not only the daily operations, but also the ongoing development of the business process is under the responsibility of the vendor. Although this kind of relationship can maintain benefits (competitive advantage) through process transformation and strategic differentiation, it also contains higher risks since both the operational and strategic control is out of the company. Also this situation sometimes can cause problems in mergers, which was the latest fashion among the business world.

The main characteristic that differentiates the four types of outsourcing strategies, mentioned above, from each other is the scope of the outsourcing contract. Apart from this, another differentiating characteristic of outsourcing strategies is the *strategic importance level* of the function which is going to be outsourced. In case of "Business Process Outsourcing", it is evaluated as a *strategic* step whereas the "Out-Tasking" is only a *tactical* situation.

Another difference between outsourcing strategies is the customer and vendor (the company and the 3PL side) relationship. If the vendor is performing only a specific task of a function, relations are poor and limited, since it contains only the completion of the task according to the contract. As the scope of the outsourcing contract broadens, the relations (collaboration and co-operation) between the customer and the vendor increase and intensify.

Consequently, in order to determine the right strategy of outsourcing, the company targets, goals and the expected benefits from the outsourcing contract should be clearly stated and put forward. The outsourcing agreement signed today should be dynamic and flexible enough to meet the company's probable requirements tomorrow. As the company grows, the agreement also should be adoptable to meet the new requirements. Many companies in today's

business world take outsourcing decisions without thinking about how it is related with their goals and objectives. They only imitate their competitors and they take outsourcing decisions only because other companies in the industry do so! Therefore, the result is going to be a disaster in terms of the costs and miss-directed resources. (Sanders ve Locke, 2005).

A last remarkable point might be that, a responsible person, who is going to continue and direct the relations with the third party logistics firm, should be determined. This is also vitally important for successful operations. This person monitors the performance of the 3PL firm, sustain the relationship and determine the measures for performance evaluation (Atkinson, 2006).

3.2. Factor to consider in choosing a 3PL firm

While selecting the third-party logistics company which is going to be transferred the supply chain operations, a specialized and experienced one (for our purposes) should be preferred, rather than "all kind of services to all customers" type of one. At this stage, one the most critical factors comes out to be the mutual confidentiality and secrecy. Managers generally evaluate the 3PL firms according to their financial strength, information systems integration and technical sufficiency, cost structure, capacity and references. Besides these, factors and qualifications such as flexibility, ability to meet the demand immediately, industrial specialization and experience, and sufficiency of the staff should also be taken into account in the evaluation process (Sink, Langley ve Gibson, 1996).

According to Sanders & Locke (2005), the companies' satisfaction level with the performance of 3PLs is about 50%. If such is the case, what is to be done to increase the satisfaction level? The important points that we have to consider during the selection process of a 3PL firm are as below:

- 1) While choosing a 3PL company, irrespective of the scope of the functions to be outsourced, it has to be evaluated thoroughly according to its ability and sufficiency. This evaluation has to comprise the company's core business, its ability to offer special services, respectability in the industry, experience, references and staff's capability. A logistics company should acquire a flexible organizational structure so as to meet the customers' potentially growing and changing demands. Another problem may occur when we consider the size of the company relative to the vendor (3PL company). Sometimes, smaller companies might feel that large vendors do not give them enough attention. A good relationship between client and the vendor contributes to business success, especially when both parties work around a clearly understood goal. A good relationship also is very much related with the compatibility of the organizational cultures of the client and the vendor. As the relationship between the parties develops, trust among them also develops. Trust is one of the key factors in outsourcing engagements, no matter at what strategic level it is.
- 2) A good relationship management is quite important. Most companies do not take this point seriously and neglect this point. Especially in comprehensive outsourcing engagements, the company must determine (or hire) and train the necessary human resources. And it is also necessary to build relationship architecture to manage the relations between the parties.
- 3) All the operations and processes should be performed appropriate to the contract. It is necessary to describe the mutual duties and responsibilities in detail in the contract. Generally, these articles in the agreement are not paid much attention and seen as "paper work" but the contacts' importance is increasing in today's volatile business and economic environment and increasing global transactions.
- 4) Another important point of a successful outsourcing agreement is the measurement of the performance continuously and accurately. Every key point related with the goals and objectives has to be monitored by measurable metrics. These metrics can be operational, financial or strategic. Measuring the vendor's performance is quite a complex issue than it appears.

3. Risks of outsourcing

Prof. Sunil Chopra from Northwestern University points out that, there are many issues supply chain management, such as procurement, inventory management, estimations related with the operations, customer relations, information systems, capacity management, and intellectual property rights; and each of these includes its own risks; therefore, risk averted strategies have to be required to be developed (Biederman, 2005).

"Despite the promising benefits of outsourcing, companies still need to carry out a proper assessment of the scope and timing of outsourcing as well as the choice of 3PLs to which outsource. A company must compare costs and advantages of providing logistics functions in-house with those of outsourcing" (The United States E-Commerce and Development Report, 2001).

According to the Boston Consulting Group specialists, while outsourcing is *rescuer* for some companies, it may be disastrous when it is handled and applied in a wrong way. While it is fatal sometimes not to outsource a function, it is fatal sometimes outsourcing with a wrong strategy. Many companies are trying to understand the risks related with outsourcing; and these risks become more serious when the company attempts to outsource the functions related with its core business such as engineering and design, which maintain competitive advantage against the competitors. If a company out sources the critical processes related with the product life-cycles, then the company itself becomes a distributor and loses all its control and elasticity on the products (Biederman, 2005).

Although the usage of outsourcing strategies are in an increasing trend, there are some points that cause managers to be anxious, such as the security problems in information-sharing, the anxiety about losing the control and flexibility of the information systems, the reliability degree of the suppliers, and probable quality and performance decreases (especially when the company loses the control over the processes). Since most of the companies focus on the issue of "decreasing the costs", generally they make concession from the flexibility of their supply chain system.

Consequently, every step in the supply chain has also to be evaluated from the risk perspective. The possible precautions in order to attenuate these risks could be; tracking and monitoring the suppliers regularly, using analytical measurement and performance evaluation tools, detailed examination of the costs caused by the estimation errors and transportation defects, developing the communication and collaboration with the 3PL company to know them well, assessing the insurance opportunities, and preparing the alternatives of the third-party logistics firm in an urgent case.

4. Conclusion

In this study, we examined the factors and advantages that cause managers to prefer outsourcing, to perform some of the business functions. Although the general aptitude is through outsourcing, there are of course some disadvantages and risks of it. We also mentioned the risks and the important points of outsourcing agreements.

There is an important issue about this study, which could be the topic of another study. The metrics that was mentioned here, in order to measure the performance of a third-party logistic company, could be chosen as the topic of the next study because it is quite a complicated area in outsourcing. Therefore we can evaluate objectively and decide whether they are worth to outsource our functions or not.

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CERTIFICATE OF ATTENDANCE

This is to certify that

Ali Kuzu

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