STRATEGIC DIMENSIONS OF FOURTH PARTY LOGISTICS

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Abstract: This paper presents the key elements of a logistics strategy along with fourth party logistics context. The importance of understanding and taking account of a company's strategy which consist logistics processes has been emphasized. The paper consist an outline of some of the main definition of fourth party logistics providers. Then, theoretical background of 4PL is presented. The detailed, important factors considered as an advantage and limitations of 4PL's is described also. Author presents main factors which influence the character of logistics in an organization and some main findings and the overview of the recent trends in logistics and logistic strategies. Next, the formulation of logistics strategies inside company's structure were discussed and several current approaches to logistics management were presented, as well. As a final point, the shift of environmental change on logistics strategy development were presented.

Keywords: logistics, fourth party logistics, strategy of logistics.

1. Introduction

Today's organizations are investigate every area of their business as they adapt to the rapidly changing environment. Some of the most impressive changes are to the supply chain management. Maintenance a flow of supplies moving through the supply chain in a highly complex and changing environment, requires management of the highest level. Organizations need to develop new strategies which allow the organizations to adapt to new conditions [1. p. 352.].
In the highly competitive, ever changing new global economy, organizations cannot afford to be slow. Any logistics organization must be able to adapt to the changes which inescapably occur. The modern logistics organization needs to be agile and flexible - unresponsive and unadjustable organizations typically lose their competitive advantage. It is difficult to anticipate changes in the marketplace or the firm, organization must be open to those changes and must react to. Flexibility of structures and systems will be critical in the nearest, predictable future. Furthermore, electronic logistics is changing logistics. Logistics systems are becoming more and more electronic, as consumers, manufacturers, retailers, suppliers, and distributors are electronically connected through the Internet and other forms of digital communication. E-logistics systems are paperless systems which use digital methods to combine all logistics actions electronically [2.].
Managers appreciate the advantage of taking a whole supply-chain perspective when setting up their logistics strategy, because it is a considerable cost and service profits to be gained. This concept can apply to the outsourcing of logistics operations, also. Given that there are noteworthy profits to be attained from a 3PL's approach to its supply chain, then it should

also be possible to achieve better performance, that if a complete operation is maintain by 4PL's. Companies that outsource logistic operations would then also be able to benefit from the advantages that accumulate from effective supply-chain management. This approach has been authorized by many service providers, and so the idea of fourth-party logistics has been born.

2. Fourth party logistics. Theoretical background

The term "fourth-party logistics provider" was coined by Andersen Consulting. It refers to the evolution in logistics from suppliers focused on warehousing and transportation (third-party logistics providers) to suppliers offering a more integrated solution. Fourth-party logistics providers include supply chain management and solutions, change management capabilities, and value added services. These companies are basically third-party logistics providers that either add these capabilities to their services or form alliances to provide the services. 4PL concept focuses on working together with client on transformation efficiencies, thus redesigning not only the supply chain, but sometimes also the overall business process and internal organization [3.].

In recent years a concept has emerged. It sought to offer a radical solution that would offer companies total outsource supply chain solutions. It was originally defined as a supply chain integrator that assembles and manages the resources, capabilities and technology of its own organization, with those of complementary service providers, to deliver a comprehensive supply chain solution. The concept has evolved while a number of indisputable 4PL solutions have emerged, in practice it is now more common for some 3PLs to offer 4PL type solutions [4.].

The main task of 4PL which provides the clients with the vision that is necessary for continuous innovation and improvement in supply chain performance. This hierarchical role, involving whole supply chain management provision, clearly requires there to be a truthful partnership between client and provider. This strategic role is possibly best provided by a professional consultancy [5.].

Organizations often benefit from concentrating on their core operations and outsourcing peripheral activities to specialists. Logistics is a particularly accepted function for outsourcing, with specialist service providers taking over part, or all, of the material movement and storage. Some of the benefits are: lower fixed costs, professional services, economies of scale, elastic capacity, lower exposure to risk, improved geographical coverage and service levels. If the management of several 3PL contracts gets complicated, so that another company is used to manage it - giving fourth-party logistics (4PL) [1. p. 16.].

The point is that, external organization provides a client organization with an overall supply-chain-wide solution by incorporating the assets and expertise of any number of third parties to superlative result.

4PL's it's kind of entity which bring together and centrally manage the complete supply chain for a organization, using all the best out of 3PL 's: technology service providers, supply chain specialists or consultants to offer a separate supply chain solution. A 4PL is best described as an entity that positions itself between the manufacturer and the 3PL, managing the 3PL on behalf of the manufacturer, consequently reducing the value of the 3PL to the supply chain.

Information technology plays important role in logistics and supply chain management. The integration of logistics is quite dependent on IT support. 4PL is a significant logical evolution in logistics management. 4PL assembles and manages the resources, capabilities and technology of its own organization with those of complementary service providers to deliver a complete supply chain solution. However, the dividing line between 3PL and 4PL is very thin. The origin of 4PL lies in forming collaborative relationships among various

logistics service providers based on an technology support. Fourth party logistics company has to fulfill such a requirements as to covers the entire supply chain of the customer. It is a partnership between two or more logistics service providers to extend logistic solutions to a common customer. A 4PL firm fulfills all the different requirements of the client from a single source instead of getting into several 3PL alliances. The service supplier has to organize assets, add manpower, hire a facility on lease, or purchase it outright [6].
The fourth party logistics organization incorporates the advantages of both insourcing and outsourcing to provide maximum benefit to the client organization. The acceptance and growth of outsourced logistics services have been driven by strategic, financial and operational considerations (Table 1).

Table 1. Most important factors considered as an advantages of 4PL's

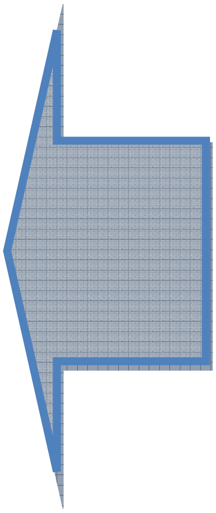
Strategic factors	– Allows senior management to focus on core competencies, – Minimizing the time and effort spent on logistics, – Improves customer service, – Economies of scale, – Building competitiveness, – Diverting of risk, – Provider is a single contact point - the management of multiple logistics providers is handled by a single organization, – Allows for provision of broader supply chain services, – Provider can be a resource of a diverse top of class specialists.
Financial factors	– Reducing operational cost, working and fixed capital, – Reduces capital requirements, – Reduces supply chain costs, – Increasing revenue, – Reduction of liabilities.
Level of service factors	– The freeing of the user company's capital for mainstream use by selling assets, – The continuous monitoring and improvement of supply chain processes, performance and costs, – The benchmarking of different supply chain processes against world-class companies, – The continuous monitoring and reassessment of service level achievements, – The development and use of core expertise from all logistics participants.
Operational factors	– Simplifies the industrial relations environment, – A new entity makes it easier to eliminate old industrial relations issues, – A new entity should enable the transfer of selective personnel, – A more flexible working environment can be established, – A new company culture can be created.

Source: [6.], [7.], [8.].

For two major reasons, a 4PL process is going to be successful. First, scale and scope benefits are established from the outset. Secondly, the venture is immediately perceived as being an independent entity. Non-alignment with a particular client organization makes the 4PL organization a more attractive proposition to clients and increases the prospect of establishing a considerable client base. The 4PL organization is a supply chain integrator and delivers supply chain management services from its own internal staff and contracts the services of external logistics service providers as required. Logistics is a core competence of

4PL organization, so operations are best practice and are regularly benchmarked, developing a culture of permanent improvement. Benefits refers to savings from improved charge for goods and services enabled by the improved scale of combined purchasing, and improved efficiencies brought about by greater integration of operations across the supply chain. A 4PL deals will deal with most of the problems experienced by users of 3PL services and give some significant extra profits [7.].
The fourth-party provider will be involved in both the design and the management of a client's logistics system and will act as a coordinator for many different types of service, which may include distribution, information systems, financial services (Table 2.) [8.].

Table 2. The major opportunities in the key areas of integration

<table>
<tr><td rowspan="4">4PL</td><td rowspan="4">FINANCE</td><td rowspan="4"></td><td>Architect/Integrator</td><td>Supply chain visionary
Multiple customer relationship
Supply chain re-engineering
Project management
Service integrator
Continuous innovation</td></tr>
<tr><td>Control room
(intelligence)</td><td>Experienced logisticians
Optimization engines
Decision support
Neutral positioning
Continuous improvement</td></tr>
<tr><td>Supply chain
(info-mediary)</td><td>IT system integration
IT infrastructure provision
Real-time data tracking
Convert data to information
Provide info to point of need
Technical support</td></tr>
<tr><td>Resource providers</td><td>Transportation
Warehousing
Manufacturing (outsourcing)
Procurement service</td></tr>
</table>

Source: [8].

The ability to be an architect or integrator is core to the description of a 4PL and means having the competence to carry out supply chain design as well as the supporting skills within project and customer management to enable the supply chain to work at level requested. It can be based on either a core competence within supply chain design as a result of extensive work as a 3PL or consultant in the industry, but also on being in an independent position making it easier to make overall arrangements that are valuable for the supply chain. The control room places the 4PL as a decision maker with a spotlight on managing overall operations. The management of multiple 3PLs comes under this heading (hub concept). Using this idea enables company to see more detailed structural effects of using a 4PL. Several aspects can be identified, including the reduction of the number of intermediary business. The ability to be a resource provider is one of the aspects of 4PLs, that is increasingly seen as an advantage if the 4PL itself does not have extensive physical resources. The explanation is that making use of such resources may require different competencies carried out by a 4PL. Furthermore, equally important is the incentive structure for the 4PL changes if it has physical assets that need to be utilized profitably. The 4 PLs firm should be good at buying the services of other firms such as 3PLs which can then focus on making the best possible use of physical resources. Advantages of scale are a common theme in business, production and distribution. The scale can be achieved either in operations themselves or due to accumulating business, (gaining concessions from suppliers due to large purchasing orders) [9.].

The providers of logistics services have to meet a lot of challenges in order to survive through the competition and demand for continuous improvement of the service. It's worth to notice some of the limitations of the fourth party logistics. The first limitation is competition from other logistics providers and (sometimes) from the internal company's departments. The brutal competition forces the provider to lower prices. Thus, cutting costs, take a hit on service. Consequence is displeased customers - leading to termination or non-renewal of contracts. The second limitation is that logistics providers may not be experts in managing logistics functions. Most third-part logistics providers are part of operators of transportation networks or warehouses. They may be good operators, for most popular processes but may not have enough acquaintance, skills and expertise to coordinate wide range of processes and complex operations [10. p. 240.].

3. Logistics issues on strategy designing. Influence of 4PL on business strategy

When designing and operating a logistics system, one needs to address several fundamental issues. Logistics decisions are conventionally classified as strategic, tactical and operational, according to the planning horizon. Strategic decisions have long-lasting effects. They incorporate logistics systems design and the purchase of expensive resources (e.g. facility location, capacity sizing, plant and warehouse layout, fleet sizing). Because data are often incomplete and imprecise, strategic decisions generally use forecasts based on aggregated data [11.].

Strategy for the global corporation is a quest for competitive advantage. Logistic operations are being accepted as a resource of advantage and effectiveness. There are fundamental processes that verify the track of a company's business: product development, customer relationship, and the supply chain. They are co-dependent processes, which must be synchronized and directed to achieve victorious performance of strategy for the organization. The supply chain is both unique and an extension of the logistics concept. The logistics concept goes part way, but is oriented to the actions and objectives of the individual firm. The key element is supply chain integration, coordination of operations and decisions [12. p. 38.].

The strategy designing level includes logistics decisions of a strategic nature. These types of decisions are expected to extend beyond logistics. The key logistics decisions concern performance objectives and the level of vertical integration and outsourcing. One primary strategic decision is the definition of customer service and the associated metrics (defining what and how will be measured). This decision requires information about: organizational mission, company's strategy, customer needs, the competitive surrounding, financial resource and the existing logistics system, as well. A consequent decision related to defining customer service is setting the consumer service objectives. This involves developing performance standards using the previously defined customer service elements and metrics, as well as the previously mentioned additional information. Other fundamental strategic decisions concern the level of vertical integration and outsourcing within the supply chain. Decisions correlated to outsourcing resolve which functions should be outsourced and nature of outsourcing agreements. These decisions may rely on the formerly defined customer service objectives and the additional information needed for the definition of customer service. There are a wide range of additional strategic decisions that have an effect on logistic system (determining the organization's overall strategy, the range of products and services offered, determining the geographic scope of production, distribution, and marketing, determining the marketing and information management objectives and strategy) [13.].

Managers are increasingly becoming aware that efficient and effective logistics system can provide the organization with a sustainable competitive advantage. Competitive advantage built upon a well-planned and executed logistics strategy can be sustainable because it is very difficult for a competitor to copy. The challenge for any organization is to focus its skills on satisfying those customer needs that offer the greatest opportunities for obtaining a sustainable competitive advantage.

However, this appreciation for logistics is a relatively recent experience. Traditional sources of advantage centered around factors such as access to low labor costs, natural resources, large captive markets, or some unique technological expertise. Unfortunately, while still critically important to corporate success, these elements are declining in importance as sustainable advantages. New technologies are shrinking direct labor costs as a percentage of total costs: many nations with historically low labor costs are finding that emerging countries can undercut them; the rate of advancement in some industries seems to make technological developments obsolete almost as soon as new products reach the marketplace. Finally, the availability of natural resources and inexpensive components has become increasingly global, largely eliminating access to them as an advantage. A company's supply chain is an integral part of its approach to the markets it serves.

One needs to act in response to market requirements and do so in a way that supports the company's business strategy. The company’s strategy starts with the needs of the customers that the company serves (will serve). Depending on the requests of its customers, a company's supply chain must deliver the appropriate mix of responsiveness and efficiency. A company whose supply chain allows it to more efficiently meet the needs of its customers will gain market share at the expense of other companies in that market and also will be more profitable [14.].

However, even the most superior advances disintegrate over time. It’s fact, that yesterday's competitive advantage becomes today's standard ones. Thus, it is easy to duplicate. Therefore, the spectrum of opportunities for any given strategic innovation may be narrow, so organizations must constantly be searching for new ways to meet their customers' needs better than the competition can.

Achieving significant competitive advantage requires that an organization have a thorough understanding of its customers and the additional value that they seek. The company has to posses core internal skills (competencies or capabilities) necessary to take advantage of that familiarity in ways that competitor will not be able to copy. For example, there is a emerging demand for time-based logistics management in developed markets where customers are pretty sophisticated and the competitiveness is at peak level. Speeding up the process means streamlining the flow of goods from the supplier to the customer by eliminating activities and processes with no value added but time consuming. Customer require for quick delivery, continuous shipment tracking, and electronic transfer of information to minimize wasted time [15. p. 8-9.].

The fundamental objectives of a company must be undoubtedly established to make possible the efficient design and development of a logistics system. Overall strategy of the company obviously impacts the nature of logistics strategies which in turn determine the design of the logistics system within the company and its core components. There are three well-known business strategies: to minimize capital cost, minimize operating cost and maximize customer service. The capital cost-reduction objective aims to minimize the total investment in the logistics system. The consequent logistics strategies may be to outsource warehousing or to ship direct to final consumers. Therefore, such a strategy will focus on efficient shipping alternatives and on locating company’s plants closer to markets. The operating cost-reduction objective minimizes the variable cost of movement and storage. The equivalent logistics strategy is to choose improved storage system and transportation options. The service-maximization objective maximizes product availability to the consumers and

minimizes order reaction time. The logistics system to maintain such strategy is to improve storage capacity, increase product mix and develop better transportation services [10. p. 23.].
Apart from of the specific way in which company's strategy is created - it is essential to enlighten the connection between the structure of the logistics organization – the strategy and performance. Thus, corporate strategy can have a particular influence on logistics with reverence to the inter-organizational relationships that subsist within the company's supply chain. Aims of the logistics function in a company may infrequently change (e.g. from cost minimization to an emphasis on customer service) reflecting management's requirements to achieve the peak performance. That is why, the maintaining a direct line of communication between top managers who are responsible for creating overall company's strategy and those supervising logistics operations is very important.
The main factors which influence the character of logistics in an organization are the type of business transacted. The meaning of logistics is being related to the entire costs of doing business: the need to manage trade-offs between the important logistics cost categories of transportation, inventory holding, and prospects for lost sales; the complexity of the logistics network; the nature of the overall corporate strategy; and the capabilities of the logistics management personnel [16.].
Nowadays, there are a few conditions that are shifting the logistics-related strategies and operations: [17.]

1. The Internet B2B economy. A spectacular transformation in the use of the Internet for business transactions between all market's participants (e.g. retailers, suppliers, and distributors).
   Duo to the worldwide access to the Internet, not only increasing competition and reduced purchasing prices may result, but also new sales opportunities. Market places play a role mainly at the interface between two or more supply chains while the synchronization of flows among different companies within a supply chain is supported by two-way scheduling. Business-to-consumer (B2C) communications mean approaching the individual end user via the Internet. Numerous new challenges have to be addressed here, like a user-friendly access to information regarding products and services, securing safety of payments and finally, the transport of goods or services to the customer. B2C opens up a new marketing channel to end users and offers a means for incorporating end users within a supply chain [18].
2. Reverse logistics. The management of returned goods to distributors, manufacturers, or retailers.
3. Real-time logistics event management. The need for accurate and timely management of information to maintain on-time deliveries, reduce inventory levels.
4. Logistics technology solutions. Innovative logistics management technologies provide real-time observation of logistics operations, ensure a more accurate, efficient and effective flow of goods and reduce costs.

There are two strategic function of supply chain at a corporate level: a supply chain as a source of competitive advantage in itself, and as support for products and markets. First case - companies (which are top of the sector) have set standards through their respective supply chains in their respective industries that their competitors have had to follow. In the second one, companies have both delivered unique products and merchandising. Beyond their location in decision-making, logistics strategies have two roles to play in the company's overall business core. By providing a vision of the future opportunities, they create a focus for partners in the supply chain, so that they may identify and take part in the system. A second role is creating and managing the supply chain, providing direction for all decisions, acting to coordinate processes. Supply chain strategy can be further divided into active and reactive strategies. Active strategies provide and protect the core of the organization, to increase revenues, cut down costs and maintain the competitive position of the organization. Reactive strategies are projected for reaction to shifting situation in company's environment. The main idea here is to provide immovability, to protect the value chain against unexpected events and circumstances. A supply chain is part of a larger network, a system of interconnections. The heart of it is a directed system planned to accomplish a definite set of tasks [12. p. 347.].

5. Conclusion

An attempt has been made to describe an outline of some of the up to date trends in today's logistics. There are quite a few other developments that have taken place and are continuing to take place in a number of other areas in logistics. Some of them are especially in the conceptual phase, some others are complete models strictly related technical issues. Main concepts are explicit to logistics. Some of the concepts discussed in this publications are appropriate to utilize in other areas of business. The emergence of innovative technologies in the areas of communication, tracking and scanning coupled with the growing trend in global partnerships and cooperation will make fourth party logistic cost-effective and an absolute essential in the next years. The scope for further research and development is plenty for global strategy of logistics.

Global expansion is the key to success for many firms today. Exploiting those opportunities may be relatively easy in some cases, extremely difficult in others. However, the objective must be the same: to provide more customer satisfaction and value than the competition. Because of the additional complexities resulting from issues related to customs and documentation, managers may feel more comfortable using one or more intermediaries to assist in performing some or all of the processes needed to expedite and smooth the flow of goods to distant customers. But whether value delivery processes are performed in-house or with the benefit of fourth party logistics, an effective logistics system is absolutely essential to the success of a global marketing effort [15. p. 207.].

Logistics strategies must be developed within the context of corporate strategy and consider main organizational objectives and relevant strategies of other functional areas, as well. The growing visibility of logistics is at least partly due to the omnipresent nature of logistics interaction across the functional spectrum of the firm. The challenge to today's logistics is how to coordinate logistics approach in a time of greater than ever uncertainty [15. p. 214.]. Improved performance comes from integration and cooperation. Global operations, linked with a sound knowledge of markets and competitive analysis, are essential for sustainable long-term success. This chapter has looked at the implications of this integration in the supply chain, and has described how skilled managers must embrace change, and use all available business skills and resources. In aiming to be competitive in a changing environment, people must be enabled for change. Effective leadership and good communication are key success factors. Opportunities must be exploited and all skills employed for the full benefit of the organization [5.].

The most promising effects of competitive nature lie with inter-organizational connections. Industry practice changes rapidly in response to market dynamics and innovative technologies, but the most difficult issues come from management dilemmas in inter-organizational relations. The most promising approaches derive from theories about organizational behavior that allow for identification and evaluation of the forces acting on their relationships and therefore providing a basis for prediction.

Logistics is becoming an progressively more and more essential element of the company's overall strategy. Really understand the full importance of logistics as a source of competitive advantage requires that managers create, develop and implement strategies that are becoming increasingly more and more complex, more complicated to undo, and more hazardous than ever before. Paradoxically, an even bigger risk may lie in failing to develop a logistics strategy responsive to the fast pace of business life and environmental change. Such approach try to investigate the strategic planning process in the context of using fourth party logistics partners.

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