

STRENGTHS AND WEAKNESSES OF CURRENT SUPPLY CHAIN MANAGEMENT AND INITIATIVES FOR THE FUTURE

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ABSTRACT

Supply Chain Management is the potential way of securing competitive advantage and improving organizational performance, since competition is no longer between organizations, but among supply chains.

The purpose of this article is to identify strengths and weaknesses of current supply chain management at different levels as: strategic orientation, process and IT support, management and organization, cooperation, measurements

Another goal is to make suggestions as to what parts we have to focus on in the future to reach the desired performance of supply chain management.

KEYWORDS: *performance, strategy, strength, supply chain, weakness.*

JEL CLASSIFICATION: *D390*

1. INTRODUCTION

Over the past decade, there has been an increasing emphasis on supply chain management as a vehicle through which firms can achieve competitive advantage in markets (Collin, 2003). The essence of fact-based supply chain management is integrated planning and control, which has three important dimensions. The first dimension is functional integration involving decisions about purchasing, manufacturing, and distribution activities within and between the company and its suppliers and customers. The second dimension is geographical integration of these functions across physical facilities located on one or several continents. The third dimension is inter-temporal integration of strategic, tactical, and operational supply chain decisions. To put it simply, strategic planning and control are concerned with resource acquisition, while tactical planning and control focus on resource allocation, refinement, operational planning and control are concerned with business execution (Shapiro, 2001).

Supply chain management has been defined as the "design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally." (Wikipedia)

The goal of Supply Chain Management (SCM) is to integrate both information and material flows seamlessly across the supply chain as an effective competitive weapon (Childhouse and Towill, 2003).

This article should help in understanding the methods of supply chain and how the weaknesses may be used to develop the future supply chain in order to obtain more advantages and efficiency in its processes. Management of supply chain therefore requires the planning and control of activities to

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achieve the desired goal and shaping the organization by coordinating activities, goals, interests and relationships in order to avoid conflicts and make good decisions.

2. LITERATURE REVIEW

Over the past decade, there has been an increasing emphasis on supply chain management as a vehicle through which firms can achieve competitive advantage in markets (Collin, 2003). Logistics after the 80's began to be approached by more and more companies in the business, as its main objective is the competitive advantage.

According to Mentzer et al. (2001), the definition of "supply chain" is more consolidated as definition of supply chain management. In his paper, he tried to make a common definition of a supply chain, based on a comprehensive research study conducted by several co-authors. They came up with the following definition: "the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across business within the supply chain, for the purposes of improving the long term performance of the individual companies and the supply chain as a whole". The supply chain may include internal divisions of the company as well as external suppliers that provide input to a focal company. A supplier for this company has his own set of suppliers that provide input (also called second tier suppliers). Supply chains are essentially a series of linked suppliers and customers until products reach the ultimate customer (Ernest & Handfield, 2002). To be able to optimize this equilibrium, many strategic decisions must be taken and many activities coordinated. This requires careful management and design of the supply chain. The challenge of supply chain design and management is in the capability to design and assemble assets, organizations, skills, and competences. It encompasses the team, partners, products, and processes. So the organization is the core of supply chain. Organization ensures the existence and specific characteristics of the social unit and rational achievement of goals. Donnelly and Gibson (1995) define management as the process undertaken by one or more individuals to coordinate the activities of others to achieve results not achievable by one individual acting alone. Hellriegel and Slocum (1999) define coordination as integration of the activities performed by separate individuals, teams and departments.

According to Rozman (2006), there are three processes in an organization assuring rational achievement of goals: organizational process, coordination, process, and decision making process. The organizational processes are defined as goal oriented processes of ensuring the rationality of people's actions and behavior and a rational achievement of the social units goal. Rationality is achieved through coordination. And coordination is conducted by taking care of the problems and by making appropriate decisions. Coordination in that context is the essence of achieving rational behavior within an organization. It encompasses coordination of activities, goals, interests, and relationships. At the company level, is being discussed the problem of coordination of business functions, business units and projects.

As Drucker (1998) concept, supply chain was seen as business relationships extends beyond traditional companies looking to optimize all business processes within a single supply chain consisting of partner companies that take various logistics functions.

For overall evaluation of supply chain management, the core disciplines as described by Cohen (2004) will be evaluated. Those core disciplines are:

- To view supply chain as a strategic asset (designed around a defined basis of competition to enable overall business strategy);
- To develop end-to-end processes and systems to interface efficiently with the rest of the organization, to design the organization and necessary skills required;
- To build the right collaborative model based on the understanding of core competences and selection of right partners;

- To maximize focus and profitability;
- And last but not at least, to use metrics to measure the health of the processes and identify problem areas.

From the analysis of strategies, processes, infrastructure, measurement system and organization on most of the disciplines there are good practices, but it should be re-evaluated the vision of supply chain, and implement a more effective measurement system.

Concerning that, the main goal of this article is to analyze the activities that supply chain involves at different levels of it in order to see where our contribution it may be useful.

To realize the main goal were followed several specific objectives:

- The survey of supply chain from a theoretical perspective, to clarify the concepts of supply chain, supply chain management and performances of it;
- From a practical perspective is planned to identify which are the strengths and weaknesses in the current supply chain;
- The identification of the parts where the focus has to increase by analyzing the weaknesses of supply chain and making suggestions about it.

The problem stated above is that current performance of supply chain is not bringing the planned results in terms of total logistic cost and service level in desired time. The purpose of this article is to identify the reasons for such development and to identify strengths and weaknesses which could improve supply chain performance especially in terms of service level and logistic costs in the future.

3. STRENGTHS AND WEAKNESSES OF CURRENT SUPPLY CHAIN MANAGEMENT

This article summarizes main strengths and weaknesses of the current supply chain. Concerning that, there are also key improvement areas that are outlined and evaluated at different levels such as: strategic orientation, process and IT support, management and organization, cooperation, and measurements.

3.1. STRATEGIC ORIENTATION

According to Cohen (2004), the supply chain strategy designs an unique supply chain configuration that drives strategic objectives forward and has five building blocks:

- manufacturing strategy;
- outsourcing strategy;
- channel strategy;
- customer service strategy;
- asset network.

Table 1. Strengths and weaknesses in strategic orientation

	KEY	STRENGHTS	WEAKNESSES
1	Manufacturing strategy	Manufacturing strategy is defined and it is used as recommended	The optimization strategies of lead time are not well defined
2	Channel strategy	Channel strategy is used for customized products and indirect distribution channel for standard products	The focus is mainly on European markets instead on being orientated on Global markets where future growth is expected
3	Outsourcing strategy	Outsourcing strategy depends on volume and suppliers competences	Outsourcing strategy for other processes and activities is not well defined

	KEY	STRENGHTS	WEAKNESSES
4	Customer service strategy	Customer service level is defined as specific service for key accounts	Customer service strategy is not well defined Service levels according to customer importance is not well organized
5	Asset network	Consolidation of the strategy for Europe is established	Asset network strategy is not established in production equipment

Source: Author

From the evaluation of strengths and weaknesses, results that despite a lot of strengths related to different key parts of supply chain strategy, there are also some weaknesses. The most important, that it should be worked on, is the long term depending on customer requirements, type of demand, as well as the cost base.

3.2. PROCESSES AND IT SUPPORT

To evaluate current strengths and weaknesses of process system an IT support are used:

- stock;
- planning;
- order;
- manufacturing;
- purchasing.

Table 2: Strengths and weaknesses in processes and IT support

	KEY	STRENGHTS	WEAKNESSES
1	Stock	Automated process	Useful stock Lack of communication between departments
2	Planning	Processes aligned with requirements	Very complex process
3	Order	Good collaboration among the members of supply chain	Manual system
4	Manufacturing	Automated process	Poor management
5	Purchasing	Exchange of data is made by suppliers	Poor development of operational process

Source: Author

The conclusion of this chapter is that main improvement area is a systematic approach to process documentation. The points to focus on more are:

- business need;
- new technologies;
- customer needs.

The operational purchasing is not established, so is causing inefficiency and low improvement level. The IT infrastructure is supported by advanced technologies limited to internal supply chain management, but it may be used for a larger area in order to obtain better results.

3.3. MANAGEMENT AND ORGANISATION

Strengths and weaknesses of management and organization are evaluated from three different levels:

- skills;
- competences;
- metrics.

Table 3: Strengths and weaknesses in management and organization

	KEY	STRENGHTS	WEAKNESSES
1	Skills	Initiatives for productivity area	Absence of knowledge database
2	Competences	Internal training	Target setting not well established
3	Metrics	Metrics are present in supply chain strategy	Periodical reviews are missing

Source: Author

Overall activities are based on processes, on the other hand, the target setting procedure is not well established in order to ambition enough the members of the supply chain. Concerning metrics, it is very difficult to see how they are related to overall targets achievement because target setting procedure is not ambitious enough.

3.4. COOPERATION

To see the strengths and weaknesses in cooperation model was split into different levels:

- cooperation between processes
- cooperation between departments
- cooperation with suppliers
- cooperation with customers.

Table 4: Strengths and weaknesses in cooperation process

	KEY	STRENGHTS	WEAKNESSES
1	Between processes	Clear rules established for each process	Hard understanding of the rules
2	Between departments	Documented procedures Good cooperation based on demand plans, evaluation of stocks	Alignment of service target
3	With suppliers	Existence of measurement of performance involvement of external suppliers in development projects	Agreement on targets Out of stock control
4	With customers	The presence of a key account	Missing strategy for developing customers area

Source: Author

Cooperation between processes among members of supply chain is good thanks to the clear existing rules. The situation is different in newly acquired companies, who have their own processes, and no clear definition of rules and agreements among them.

The area that needs improvement is cooperation with customers. Especially in terms of targets for service levels and customer offerings.

Efforts should be made to make a clear collaboration strategy with partners, either in terms of in sourcing or outsourcing operational activities of stock control. External collaboration with customers and suppliers should also define other possible collaboration initiatives, such as E-Commerce or web ordering.

3.5. MEASUREMENT SYSTEM

The evaluation of the measurement system is divided into six characteristics that define a good measurement system (Cohen, 2004):

- Measurements must be aligned with business strategy;
- Measurements must be balanced and comprehensive and need to take into account the financial dimension, internal dimension, customer dimension, and innovation and learning dimension;
- Targets must be set on both internal and external benchmarks;
- Targets must be achievable;
- Metrics must be highly visible and monitored at all levels of the company;
- Measurements must be used as a continuous improvement tool.

Table 5: Strengths and weaknesses in measurement of supply chain

	KEY	STRENGHTS	WEAKNESSES
1	Measurements must be lined to business strategy	Existence of planning process	Low contribution to development of business strategy
2	Measurements must be balanced and comprehensive and need to take into account financial dimension, internal dimension, customer dimension, and innovation and learning dimension	Measurements are at a financial level (e.g. stock levels, logistic costs) and operational (Service level)	Measurement are not comprehensive enough The work is made manually
3	Targets must be set on both internal and external benchmarks	Targets are set	Targets don't produce development over time
4	Targets must be achievable	Targets settled on the achievable level	Targets on suppliers service level are below the customer needs
5	Metrics must be highly visible and monitored at all levels of the company	Measurements are displayed	Monitoring at all levels of organization is difficult
6	Measurements must be used as a continuous improvement tool	Present only in some areas	Deployment of use

Source: Author

The most important strength of the measurement system is the continuous improvement in order to reduce stock. For a better function the system should be balanced, meaning that the financial dimension must be maintained as well as the internal dimension.

The focus of measurement is to resolve barriers. Measurements should be used as a management tool by connecting single measurements with business targets.

3.6. KEY INITIATIVES FOR THE FUTURE

From the analysis of the current supply chain management and impact on logistic cost and service level, it was demonstrated how it was at the beginning, when implementation started, and which are the strengths and weaknesses in this moment.

Despite many activities that have happened since, service level increased, but stock level as one of key components of logistic cost, has not decreased as it was planned. So this is a point to focus on from now on. For doing that it is necessary the improvement of the communication between the internal departments but also with external suppliers.

Another point may be to reduce non value adding activities and implement the ones that can really contribute to the result, focus more on effective infrastructure, having a better visibility on market and more efficient sales order management process like E-Commerce.

When companies perform the supply chain SWOT analysis, they are able to lower costs and improve upon those approaches that help ensure timely availability of parts and materials in order to satisfy customer demands. Supply chain is based on partnerships and cooperation. Without these there wouldn't be any integration of efforts. It requires sharing of sensitive information about customers, upon request, strategic plans of the company and transactions.

4. CONCLUSIONS

Management of supply chain as a network directly involved in the flows of products, services, finances or information from a source to a customer, is a complex task. Surviving in the market, is for a company its main goal so it has to compete on international markets and at the same time defend domestic market share from international competitors. This complex network named supply chain, is pressuring to decrease cost and improve service level.

Supply chain management involves common communication and involvement and that is why many times it uses teams of work which go beyond organizational and functional boundaries to coordinate movement of products to market. In other words, we need integration not only in the middle of the company but also with external partners (Butilca, 2012).

The challenge is how to expand the global logistics and distribution network, in order to ship products to customers who demand them in a dynamic and rapidly changing set of channels. Strategic positioning of inventories is essential, so that the products are available when the customer wants them (Handfield, 2002).

There are numerous issues that need to be addressed in the company, before successful implementation of supply chain principles can take place. They span from choosing the right strategies aligned with business requirements to defining the critical processes that are needed for the execution of the strategy. Nothing can be implemented without the right people with the competences that are supporting development and execution of supply chain processes. An effective measurement system is also a prerequisite, because it provides good support for monitoring the operational performance. Last but not least, without open and honest collaboration between the parties in supply chain the benefits in terms of better cost, flexibility and service level are difficult to achieve. A professional management is required in supply chain and relationships between the partners. Companies focusing on supply chain management can achieve competitive advantage by lowering costs and simultaneously improving customer satisfaction.

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