

A STRATEGIC APPROACH OF AN INTEGRATED SUPPLY CHAIN MANAGEMENT MODEL AND SCOR MODEL CONTRIBUTIONS

ABORDAGEM ESTRATÉGICA DE UM MODELO INTEGRADO DE GESTÃO DE SUPPLY CHAIN E CONTRIBUIÇÕES DO MODELO SCOR

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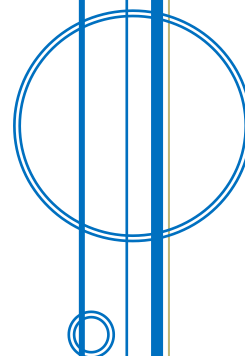
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Abstract:

This article aims to identify the strategy proposition and the outline of the structure of processes used to build a supply chain integrated model of management as well as to analyze the contributions of the SCOR model towards the context of a company. The research strategy used herewith was an exploratory case study within a global company that would provide the means for evidence from its management model. It was possible to identify the strategies and supply chain initiatives alignment through the analysis of content in categories that covered issues such as strategy, performance and integrated supply chain model, performance propositions and the concept of business value, and the realignment of the functional structure within an integrated concept of processes supported by practices and an extended vision of performance. Based on the documentary research and content analysis some contributions were recommended having the SCOR model applied to the current supply chain management model of the company analyzed, with the intention of collaborating with the improvement of the current integrated supply chain management model. This case study allowed for the observation that supply chain started to be viewed in a strategic way when the supply chain management and business objectives alignment took place and from the definition of supply chain as an essential competence to the company's market competition, developing an organization of processes and structure to support the proposed strategy.

Key words: Integrated model. Supply chain. Structure of processes. SCOR model.

Resumo:

O artigo tem como objetivo identificar a estratégia e a estrutura dos processos utilizados para construir um modelo integrado de gerenciamento da cadeia de suprimentos, bem como analisar as contribuições do modelo SCOR para o contexto de uma empresa. A estratégia de pesquisa usada aqui foi um estudo de caso exploratório em uma empresa global de grande porte. A partir dos dados coletados observou-se que o modelo SCOR aplicado ao atual modelo de gestão da cadeia de suprimentos da empresa analisada, colabora com a melhoria do atual modelo integrado de gerenciamento da cadeia de suprimentos. Este estudo de caso permitiu a observação de que a cadeia de suprimentos passa a ser vista de forma estratégica, quando ocorre o alinhamento da gestão da cadeia de suprimentos e dos negócios, bem como a definição da cadeia de suprimentos como uma competência essencial para a concorrência no mercado da empresa, desenvolvendo uma organização de processos e estrutura para apoiar a estratégia proposta.

Palavras-chave: Modelo Integrado. Cadeia de Suprimentos. Modelo SCOR. Estrutura de Processos.

1 Introduction

Processes under supply chain responsibility have been considered increasingly important in the last few years. To many companies supply chain has become a critical

factor in gaining competitive advantage within markets as well as a relevant target for strategy (Hoole, 2005).

However, Gibson, et al. (2013) claim that despite the spread of the term supply chain and the fact that it has become very well known, there is still not a clear understanding about its processes and liability in business strategies. On the other hand, well-known companies such as Amazon.com, McDonald's and Unilever recognize and make the importance of supply chain management stand out, making it a priority in their business model. These companies understand it is practically impossible to effectively compete if set apart from their suppliers and customers and without aligning all their processes and generating value across their supply chain.

According to Sehgal (2011), creating an effective supply chain, which is aligned with the business objectives and that strategically acts towards results, is key to business competitiveness. However, the benefits of an integrated vision, potential performance gains and a competitive approach are only possible if the processes that encompass the supply chain are understood and integrated within a context that will promote the structure delineation along with the right strategic alignment.

Cohen & Roussel (2013) point out that the supply chain concept approach in a strategy and operation integrated view yields opportunities that were barely tapped into by most of the companies. They consider that the supply chain developed in an integrated way and seen in a strategic way has a relevant role in creating value, supporting operation aspects and achieving results. Within this context, the SCOR model (Supply Chain Operations Reference) developed in 1996 by the Supply Chain Council in the United States, supports and provides methodology that standardizes and treats the main processes in an integrated way, enabling organizations to examine their supply chain architecture through consistent management parameters to ensure achieving their results. Bolstorff & Rosenbaum (2003) claim that SCOR is a reference model that helps companies shape existing processes, assess and project future situations considering benchmarking and best practices.

This paper deals with relevancy and understanding of the themes that cause supply chain management (SCM) to be seen in a strategic way, and lead it to the development of an integrated management structure that will take on its role creating value and

competitive difference and clear understanding that the principles and methods applied in the supply chain integrated management are decisive in order to obtain results and generate value for customers and shareholders.

The goal of this study was to identify the strategic proposition and delineation of the structures of processes used in building an integrated supply chain management model in an American company, which operates in the consumer goods segment, with global activities through contextualizing the integrated management model used, aligning it with the business goals and understanding the structure of the processes and practices that lead to the integrated model. Finally, we analyzed the SCOR model contributions to the current integrated supply chain model researched in the given company.

2 Theoretical Review

According to Naslund & Willianson (2010), one of the main challenges in SCM is the lack of a common language to be used within organizations and among industries. The definition of the concept of supply chain management should be simple; nevertheless, it becomes difficult considering the number of alternatives supported by different professionals, consultants, professional entities with their interpretations and areas of emphasis.

In Lambert's view (2008), there is no consensus yet about what is involved in supply chain and many people use the term supply chain as a synonym for logistics, purchasing or operations. Lambert's (2008) claim concurs with what is described by Gibson et al. (2013) when addressing problems of universally accepted definitions of supply chain and the fact that it is a recent discipline, established in the beginning of 2000's. This paper, reinforcing the range and performance of an integrated end-to-end management model will use the definition developed by Cohen & Roussel (2013), whereby the concept of supply chain "is a core enterprise process that encompasses all the activities – that is, all the physical, informational and financial flows – required to produce and deliver goods and services. It also involves interactions with consumers, trade consumers and multiple tiers of suppliers" (p. xii).

When considering Porter's Value Chain, Mentzer et al. (2001) claimed that the motivation to set up a supply chain network lies in the increase of the competitive

advantage for the organization and network members, considering that “the implementation of SCM enhances customer value and satisfaction, which in turn leads to enhanced competitive advantage for the supply chain, as well as each member firm. This ultimately improves the profitability of the supply chain and its members” (p. 15).

Gibson et al. (2013) claim that building value through supply chain takes into account the costumer-driven performance and the production of internal results. Hence, SCM delivers value proposition to customers through the concept of usefulness, meeting goals and building value for shareholders.

In the last decade, different authors have approached the theme on how to develop strategies and make supply chain relevant and benchmarked regarding companies’ competitiveness. According to Dittman and Slone (2010), an effective SCM can increase the company’s revenue, generate profit and increase value to its shareholders. Mentzer et al. (2001) states that SCM should remain focused on the main objectives of network management: decrease costs, increase value and customer satisfaction, and ultimately, build competitive advantage.

Cohen & Roussel (2013) state that enterprises with high performance in supply chain functions understand that their strategy should be strongly aligned with the overall strategy of the company and the fundamental basis for competition, such as innovation, consumer experience, quality and costs. On the same note, Hugos (2011) points out that the development of strategy and building competitive advantage depends on several aspects, like product development for the market, customer service, demand flexibility, inventory availability, stating “the organization needs to understand where it fits in the supply chain of the markets it works for. Following that, it is necessary to decide what activities will be focused on to deliver value” (p. 242).

Developing a strategy in supply chain encompasses the way the activities and structure are defined and how decisions are made. Porter (1989), considers that for a strategy to be successful it depends on the concept of “fit”, how the whole is understood and in which ways the activities strengthen one another to fight a chosen competitiveness, estimating that there is an important difference between the concept of strategy and learned or implemented practices, which, in turn, will lead to superior performance.

Perez (2013) deems strategy in supply chain does not end with the organization's strategic positioning. He claims that the business internal functions need to be articulated by means of fits. "The fit defines the manner in which activities connect, complement and reinforce among them. The fit is, in a few words, the assurance of the business's alignment from top to bottom, including outside the organization's limits, working in a collaborative way with suppliers and customers" (Perez, 2013, p.17).

Measuring isolated metrics is common in Cohen & Roussel's (2013) view, but not necessarily efficient. Understanding the business strategic goals looking backwards to identify how the supply chain metrics will be much more effective because "your supply chain metrics must be consistent with your company's key business goals. This is essential for seeing how well your supply chain is supporting the business strategy and taking the actions needed to improve performance" (p.175).

Gibson et. al. (2013) understand that the proposition of value provided by supply chain management is ultimately measured by the assessment of economic performance. High-performing supply chain organizations deliver great profitability and play a central role by combining characteristics that lead to profit by providing customer service, supply chain effectiveness, low-cost operations through supply chain efficiency.

Once the supply chain strategy is understood, the next step is to identify which processes will allow the organization to carry out the strategy (Cohen & Roussel, 2013). Developing an integrated process does not seem to be an easy task, therefore, it is critical that the development of a supply chain architecture is designed in order to detail processes and necessary information so that supply chain can function well and processes can be integrated.

According to Kluyver & Pearce II (2011), in order to understand processes and integrated plans, the Supply Chain Operational Reference (SCOR) is the most commonly used model to organize and standardize supply chain processes. SCOR processes framework describes and classifies the six main management processes: plan, source, make, deliver, return and enable. Each one of the processes defines interactions of entry and exit together with two other levels of details, as well as other functions within the organization or with the suppliers of the customers' supply chain.

In accordance with Cohen & Roussel (2013), the architecture of an integrated supply chain model consists of and depends on a connection among all internal processes across the supply chain network. The scope of end-to-end architecture values the extended integration with suppliers and customers – and this is key in supply chain planning and functionality. Integration processes across the organization require a very clear scope of each process, and well defined incoming and outgoing information.

Gibson et al. (2013) claim, “the obstacles to supply chain integration encountered within the organization are far more difficult to overcome than the external challenges” (p.16). This is something several authors have in common (Cohen & Roussel, 2013, Lambert, 2008, Dittmann & Slone, 2010, Mentzer, 2001) – the struggle of internal barriers and the need for organizations to eliminate silos and obstacles that hinder performance and potential of supply chain integrated management.

For Lambert (2008), setting up an integrated model consists of a close interrelationship of three elements: the business network and its connections, managing processes that generate value delivery to customers, and management components that encompass methods and practices integrated and managed in supply chain.

In Cohen & Roussel (2013), a robust architecture in supply chain should take into consideration: i) an end-to-end scope - considering interactions with internal functions and also interactions with suppliers and customers; ii) strategic alignment – having processes that show practices which actually support supply chain strategy; iii) reliability – having integrated and documented processes, supported by high quality data and information technology; iv) adaptability – processes are adjusted and mirror organizational learning and strategy changes.

Several authors (Bolstorff & Rosembaum, 2003, Lambert, 2008, Poluha, 2007, Perez, 2013) agree that the integrated supply chain model which develops architecture through processes within SCOR model – plan, source, make, deliver, return and enable, in an integrated end-to-end view, and sets functional links with other areas in the organization, has better chances to drive execution of strategic elements, development of processes, structure organization, internal and suppliers’ collaboration as well as measurement of results.

Cohen & Roussel (2013) point out that high-performing organizations not only have practices that link the most important supply chain processes but also outperform their competitors in performance metrics by having finely developed more critical practices for delivery of products and services to their customers.

One of the major points addressed by SCM in the search for increasing efficiency is related to simplification of its processes and activities. Hoole (2005) draws attention to the fact that the current business situation and globalization have raised the complexity in almost every aspect in businesses around the world, and many organizations have failed and proven incapable of adaptation, hence many supply chains are complex. The author believes success in organizations is directly related with their ability to reduce their supply chain architecture complexity.

Wang et al. (2010) believe that the context for simplification of the structure goes through reengineering business processes, whereby a radical change and a sustainable improvement is sought after, redesigning operations and process automation support and information technology. For these authors SCOR framework based on process vision is the most comprehensive and unique model supporting supply chain process analysis for diagnosis and introduction.

The SCOR model is used to assess and compare SCM activities and its performance. It provides a unique structure that links business processes, metrics, best practices and technology in a unified structure enabling communication between supply chain partners, improvement of SCM efficiency and activities related to improving the whole supply chain network (SCC, 2012).

The supply chain structure, according to Cohen & Roussel (2013) can be such a complex structure, involving several activities in each process and interaction between internal or external processes to the business functions, that most organizations find it difficult to objectively assess their performance. SCOR provides a process framework as well as standardized terminology that help organizations define their business strategy, align activities with partners and identify improvements through efficient operations.

Paluha (2007) states that SCOR fosters unmistakable communication about different concepts and terms. Bolstorff & Rosenbaum (2003) are consistent with this idea

and point out that SCOR framework is a global methodology that can be understood in any language.

The SCOR model is organized in six main management processes: plan, source, make, deliver, return and enable. It was developed to describe the business activities related to all stages concerning meeting a customer's demand (SCC, 2012). According to Kluyver & Pearce II (2011), the SCOR framework scope suggests the management of efficient product flow, developing a set of integrated benchmarking metrics and methodologies to generate a process road map and assess best practices.

The SCOR reference model consists of four main sections:

- Performance: a set of standard metrics to describe the performance of each process and define strategic goals whereby organizations can assess the execution of the process. This attribute is used to steer strategy, i.e., reliability, responsiveness, flexibility, costs and asset turnover. The performance of the attribute consists of the set of metrics used to work out the strategy. In this level ten metrics are defined, whereby an organization can measure its strategic performance concerning its competitiveness within the market;
- Processes: description of management processes and interactions between them. They encompass the main supply chain processes and their descriptions in different levels of detail;
- Practices: activities that lead to significant improvement in the performance of processes. It provides a collection of best practices used and their classifications;
- People: the necessary abilities to execute processes in the supply chain. It describes necessary abilities and levels of competency required for the functions.

The SCOR model (SCC, 2012) is hierarchically divided in levels that represent a road map to improve the supply chain performance, gradually providing more details of the process and its specificities. In its hierarchical structure, SCOR has three levels of pre-defined metrics. In level 1, the metrics represent the required diagnosis to monitor high level performance of the organization.

In Cohen & Roussel's (2013) account, many organizations use Level 1 metrics as their key performance indicators, because they provide an overall view of supply chain performance. SCC (2012) suggests that supply chain should consider at least one indicator

of each performance attribute in its indicators' framework to ensure a balanced decision-making model. Level 2 in SCOR framework helps identify the root cause of performance gaps identified in Level 1 metrics. SCOR model "and its hierarchical structure which breaks down processes into sub processes and activities, makes it possible to see how changes will affect existing supply chain operations" (Cohen & Roussel, 2013, p. 75). Therefore, Level 3 metrics are used to diagnose Level 2 performance gaps.

3 Method and Data Collection

The strategy used in this paper was an exploratory case study research method aiming at deepening and better understanding the object of the analysis. An exploratory nature enables an in-depth analysis of the phenomena, allowing for a broader view of a certain fact, it also enables searches for knowledge and helps build hypotheses and development of ideas. Qualitative research, by its nature, provides a better view and understanding of the context of the problem (Malhotra, 2001, p. 155).

According to Godoy (1995), the use of case studies is applicable whenever it is the case for an in-depth phenomenon analysis and for field research featuring stakeholders' perspectives. In order to accomplish such job we chose an organization with global performance and structured supply chain area and operational complexity to enable evidence generation using its management and process models to illustrate real case contents. In order to maintain confidentiality of information in this paper, this organization will be referred to as Alfa Company.

The case study was conducted, in 2015, at an American company, which operates in the consumer goods segment for the professional market. The company's head office is located in Atlanta, Georgia, in the United States and has 55 distribution centers around the world, 52 industrial plants in different countries and 42 customer services centers.

The data collecting phase combined desk research techniques and semi-structured interviews to make a more structured process. Desk research analyzed meetings minutes, company's procedures, standards, process flows, internal presentations, company website and interviews published in magazines. It approached content within a line of events so that the object of research in this paper could be described and contextualized.

The interviews were carried out following semi-structured scripts taking the themes highlighted in the theoretical review above into consideration. The scripts intended to create a connecting thread for the interviews, avoiding accidental diversion from the topics (four categories of analysis) and ensuring they were covered in the interviews:

- Supply Chain Concepts and Strategies;
- Supply Chain Management and Performance;
- Supply Chain Integrated View;
- SCOR model.

For the definition of the interviewees, we take into consideration the relevance of the hierarchical position in the company, the understanding of the strategic vision of the top management, as well as access to information and participation in strategic decisions. Interviewees are listed at figure 1 and names were not disclosed to maintain confidentiality.

Figure 1 – List of interviewees

Code	Job Position	Education	Years at position	Years at company
E1	Operations director – US factories	Engineer	1 year	9 year
E2	Distribution and transportation director – Latin America	Engineer	3 year	5 year
E3	Vice president of global supply chain	Business	2 year	12 year
E4	Vice President of supply chain business process excellence	Business	1 year	5 year

Source: Prepared by the authors

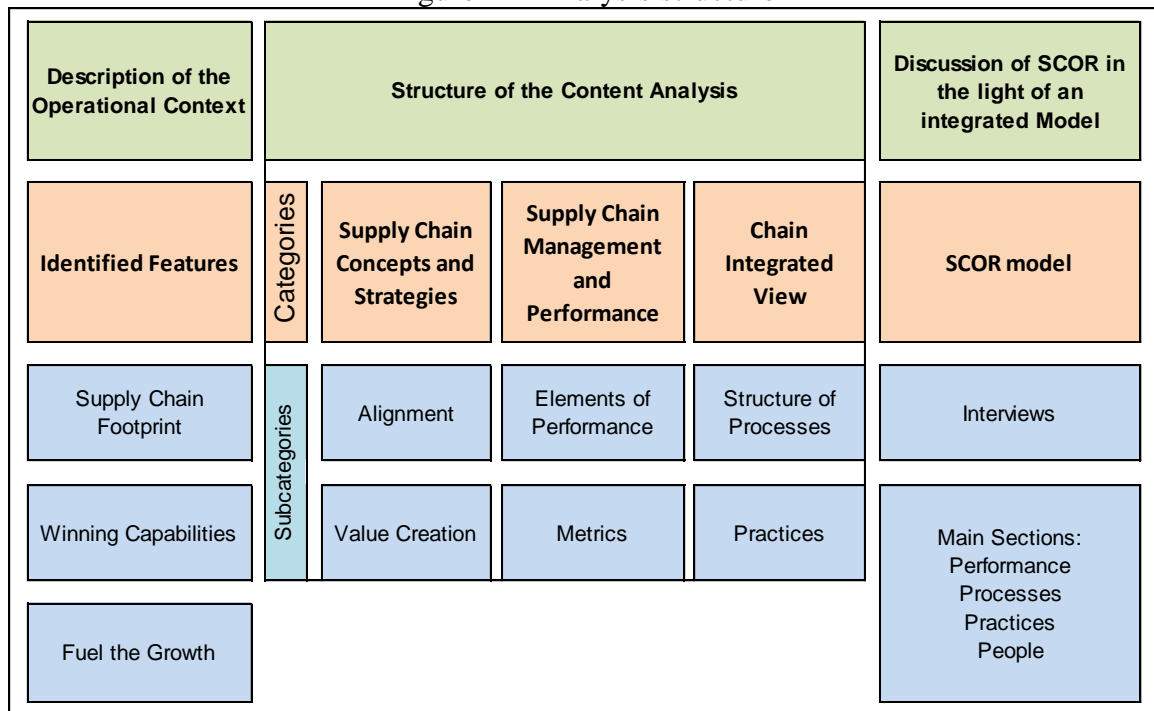
The combination of the results of the interviews and documents accounted for a significant database and a course of events relevant to both the analysis and considerations in this paper.

Following the qualitative approach, data analysis technique was based on content analysis. Analysis categories and subcategories were previously defined taking into account the theoretical review of the themes that support the set of questions and enabled grouping, classification and interpretation of data from the interviews. Similarly, the desk research and evidence collected were rather valuable and thus used to identify the contextualization of the strategic proposition and the organization of key identified

characteristics. Hence, considering the data collected, we organized, inferred, analyzed and compared it to the theory herewith presented.

The Figure 2 shows the analysis structure used in this case study. The Alfa Company organizational context was initially described according to desk research and key characteristics identified in the course of events following the definition of the integrated supply chain model. Afterwards, we proceeded a content analysis of the interviews, considering the main themes that support the theoretical construct and the categories for analysis previously defined. Finally, a SCOR discussion took place in light of the integrated model approach, following by the SCOR model four main sections.

Figure 2 – Analysis structure



Source: Prepared by the authors

4 Results

This section presents and analyzes the organizational context in which the case study was conducted, having been initially based on previous desk research. Secondly, the result of content analysis is shown, based on the interviews and SCOR model contributions to the current supply management model of the company investigated.

4.1 Description of Operational Context

The case study started with desk research and description of organizational context of the so called Alfa Company, in which the course of events were analyzed in the investigated company's setting. The organizational motivation and the strategy that led to the alignment of SCM function to the business objectives could be observed. Three key features were identified in the organizational context, as follows.

- Supply Chain Footprint

Based on the collected data, Alfa Company tapped into its strategic growth plan, identified in 2012, pointing out the need to include strategies connected with the supply chain area that would support their expansion and ambition for growth in the market. The initiatives encompassed realigning the structure with business strategy – actions that aimed at cost efficient financial measures and back office operations support - setting up a supply chain footprint, which represented the need to create an efficient execution structure, in order to deliver consistent results to customers and to the organization. They would act for the simplification of the structure and the operational model synergy, supporting business growth and financing expansion needs of the organization.

In the beginning of 2013 Alfa Company created the position of Chief Supply Chain Officer (CSCO) as a follow up to the strategic need – the main executive function in supply chain directly connected to the president and CEO of the company. Leading all aspects concerning global supply chain was among his responsibilities focusing on having a consistent approach of operations and increasing capacity for growth through productivity initiatives, working capital and assets management, and building relations to support market expansion.

From then on, strategic initiatives were launched to build an integrated supply chain model taking into account the development of a global operation strategy aligned with the business objectives, the development of skills and talents in the area, setting up an integrated structure by key processes and an operation model to support the growth of customer-driven initiatives. For the Alfa Company the supply chain processes integrated model and strategic key drivers consist of:

Plan: drive an integrated business operation plan;

Source: create the best cost partnerships;

Make: invest in the core;

Deliver: seamless execution;

Serve: one face to the customer.

- Winning Capabilities

The supply chain development function and organizational realignment in Alfa Company attended to assigning strategic responsibilities, visualizing the organization as a whole and in an integrated way, removing unproductive costs and freeing up costs for investments linked with the business strategy.

In February 2014, the company's CEO presented to the staff, in an in-company conference, what the core competencies should be like in order to deliver the expected results to customers and shareholders and to support the organization's global strategy. The supply chain function was presented as one of the four winning capabilities to be carried out by the organization. The other capabilities were marketing and consumer insights, design and R&D and customer development.

Within the supply chain definition as a core competence two strategic premises linked with the business strategic plan stood out: the first one was related to driving productivity and cost reduction in supply chain that could provide and fuel the growth plan, and the second one concerned building powerhouse execution and increase performance of competitive customer-driven attributes and that supported customer development competence.

- Fuel the Growth

One of the main goals identified in realigning the supply chain function and its upgrade to core strategy competences was linked to productivity and freeing up costs generated by re-engineering and process consolidation, by simplifying and reducing the complexity of the structure, and by focusing on better efficiencies of resources that compromised the operational outcome, such as assets and cash flow, fixed costs and operational costs.

Such positioning was deemed appropriate to simplify the method of operation and elimination of unproductive expenses and thus make supply chain a source to finance the

strategy, allocating resources used for a fixed structure to be reinvested in initiatives linked to expansion and business growth, such as innovations for new products and marketing and sales campaigns. This would allow for greater returns that would bring a better usage of plants, being more cost efficient with better scale, which in turn, could be reinvested again.

4.2 Structure of the Content Analysis

The approach of the organizational context through the information presented made it possible to describe and identify how the elements and strategic positioning were used in the company's reality. From this context, we present the content analysis of interviews with the managers of the company, based on the defined categories of analysis.

- Content analysis of concepts and strategy in supply chain

According to the interviews, in the perception of all of them, there is alignment between the strategies defined for the business and planning initiatives and the implementation of the supply chain. We also found that the responses considered the knowledge on the positioning of strategic propositions; interviewees addressed targeting to fuel the growth plan and productivity by simplifying the structure of the supply chain and the strategic position to build a robust execution powerhouse that increases actions leading to better customer satisfaction and translates into competitive advantage. Interviewee E3 pointed out this is the correct platform to support growth, because "[...] it supports the growth plan as it stimulates efficiency and the effects translate into customer value which helps accelerate the growth plan". Interviewees E2 and E4 stressed that the initiatives in supply chain are linked to a game plan which in turn is tied to the elements of overall corporate strategy; therefore you cannot have a supply chain management strategy that is not connected with the business strategy.

Interviewees E1, E2, and E3 pointed out the creation of the CSCO role was decisive in guiding and aligning strategy. Interviewees E1 and E3 reported the importance of a corporate approach to the structure of the supply chain and of having an aligned position on the contexts of action to support the growth plan, avoiding specific optimizations, as it used to be common.

All interviewees affirmed the existence of a formal communicated strategy that addresses integrated supply chain. Interviewees E1 and E2 highlighted the inclusion and promotion of integrated supply chain among the core competencies of the business and the existence of a formal top down communication plan. Interviewee E2 also complements: "[...] it is the first time I've seen a strategy based on the supply chain."

According to the answers of interviewees, the creation of value by supply chain is related to the delivery of products at a cost that the customer values and through certain differentiated products and services. Interviewee E4 pointed out the need for correct and complete proposals for the cost and value of the supply chain that meet the level of service customers expects, as preconditions for value creation. By analyzing the interviews, we found that the answers considered initiatives to withdraw or simplify the cost of the supply chain structure and the generation of customer service differentials -- which make the company stand from the competition -- as sources for value creation.

- Content analysis on management and performance concepts in supply chain

In the perception of interviewees, we found that performance in supply chain encompasses looking at the total cost of operation in an end-to-end performance perspective and aims to achieve the highest level of customer satisfaction. The responses addressed the need for a supply chain management measured in a balanced way and the "right" metrics representing the efficiency of the processes - whether performance results are being achieved and whether there is increased customer satisfaction. The responses also identified the need to deliver results along the SCM network, to seek productivity and remove structure cost, and the need for service results for customers to be aligned with the costumers' perspective on the services delivered.

By analyzing the interviews, we can observe more uniform answers from interviewees on the performance of the supply chain, and that the performance perspective is aligned with value creation, considering factors such as cost efficiency and high levels of customer satisfaction. The hierarchical position of the interviewees in the company, which allows them a better understanding of the defined strategy and competitive positioning, could explain this.

Interviewees E1, E3, and E4 cited initiatives aimed at customers as ways to act in sales channels and to monitor service levels (such as on-time delivery and complete orders), resources, and mode of operation as the S&OP (Sales and Operations Planning); also, trade off between inventory levels and level of customer service in order to increase service levels and impact more value to customers.

Interviewees reported similar initiatives in relation to the structure of assets (manufacturing plants and distribution centers) and processes, addressing the need to have an appropriate operating model that is competitive and the importance of using practices and technology for the internal support of operations. For interviewee E4, one must understand where the customers who we aim to serve are, how the raw materials are purchased, and how products are produced and delivered to customers at the lowest cost and response time in order to consider the correct chain of activities, achieve higher efficiency and productivity, and create a robust supply chain operation.

Interviewees stated that the performance metrics used in the supply chain assessment are mostly well structured, and according to the answers it would be possible to cascade one strategic target at the business level to the supply chain processes, such as planning, manufacturing, or distribution, and to identify a set of indicators to be replicated to the internal operations or with customer focus. However, interviewees E3 and E4 addressed the need for better alignment of operational metrics and processes that encourage accountability and improve the correlation between work activities and the results they generate. In response on the use of cross-functional metrics in the supply chain, interviewees E1 and E4 cited the quality / cost of failure indicators and lead-time as examples of metrics that consolidate a cross-functional action among processes.

- Content analysis on the integrated vision of supply chain

According to the answers of the interviewees, we observed that there was a realignment of the supply chain role and the functional structure of its processes, changing the way the company internally manages its flows and organizes to meet the business strategy. By analyzing the interviews, we found that as of the creation of the senior executive position (CSCO) there were major changes and realignment of the supply chain function to the structuring of an integrated model. Interviewees E1 and E3 stressed that the organization chart

and reporting directly from supply chain management to the CSCO has become the basis of the functional processes. Interviewee E3 ranked the role of CSCO and the structuring of corporate support as decisive for the company in support of aligning each process and operation context of the different segments to the strategy and growth plan.

In the opinion of all interviewees, due to how the structure of the processes were organized and related internally and externally with customers and suppliers, one can perceive the existence of an integrated model of supply chain in the company. In the context of an integrated model, interviewees E2 and E4 have referred to the internal processes of the SCOR framework and we found that interviewees E3 and E4 cited initiatives undertaken with costumers to stimulate optimization of applications, transport, and distribution aiming at the efficiency of the logistic chain and the development of partnerships with key customers.

Interviewees E1, E3, and E4 cited the organization and implementation of practices with the proposition to improve the flow and reduce redundancies over the processes to eliminate waste and add value. These positions appear in the desk research, in which we obtained documents that show clearly the proposal of the practices developed in key business processes, as well as the cross-functional approach among processes.

Interviewees E3 and E4 stressed that people become involved in wider activities, being required to have experience in two or three key processes, and not only one. For the same reasons, we also found a better allocation of resources and selection of priorities, a fact that interviewee E3 commented: "[...] we can use resources more efficiently with proper structure because we are building a team of people who are not necessarily tied to one business and we can prioritize according to where the best opportunities are and deploy these resources to bring in the mentioned tools and help drive projects and initiatives.

4.3 Discussion of Scor in the Light of an Integrated Model

According to the Supply Chain Council (2012), the SCOR model provides a standardized process framework and terminology that helps companies define their business strategy, linking processes, metrics, best practices, and technology into a unified framework to support improvement related activities of the entire Supply Chain.

However, understanding the comprehensiveness of the model and the information found in the documentary research classified in four categories of analysis, in this section we

analyzed the SCOR model contributions deriving from the current stage of the SCM model used in the company Alfa, based on the bibliographic review.

Using the four main sections identified in the structure of SCOR, we analyzed its main contributions to the integrated model used by Alfa Company.

- Performance

We saw that the supply chain had an effective link and strategic alignment with business goals and the proposition of creating value. However, we did not notice that performance and value proposals were clearly related to the supply chain performance attributes identified in the SCOR model, especially the performance attributes relating to customers, such as reliability, responsiveness and flexibility. As a contribution, we suggest the use of the first level metrics proposed in SCOR, pointing and selecting the management priorities in order to better define the scope of the attributes and performance targets with which the supply chain should contribute to strengthen strategic targeting.

- Processes

We were able to identify the design and implementation of a process architecture based on SCOR, which aimed at supporting the strategic role of the supply chain to create value. However, the processes identified in the content of the interviews were focused on macro processes, or first level processes as described in the SCOR model. As a contribution, we suggest evolving to the second level of the hierarchical model of SCOR in the development of supply chain management, aiming to work in the definitions of strategic operations and configure the different supply chain channels.

- Practices

There was a high level of organization of management elements and proposing of practices, defined and communicated, that promoted the improvement and integration of processes in the integrated concept of supply chain management. However, we found a need for operational metrics for processes that stimulate or correlate operations with the results that they generate. As a contribution of the SCOR model we suggest applying the hierarchical structuring of third level performance metrics for existing processes and practices.

- People

We were able to identify the emphasis on training and development of people as a way to enhance skills and boost performances that exceed internal functional barriers. However, despite the emphasis on technical excellence in more than one functional process and the need for the development of skills, there was no evidence of a systemic initiative that showed how people were developing on the concepts of the approach of an integrated supply chain management. As a contribution, we suggest a development plan in the conceptualized integrated model of supply chain, and considered an overview of processes, metrics, best practices, and technology, in a proposed integrated structure to be understood for both suppliers and customers, as proposed by the SCOR model.

5 Final Remarks

This paper considered as its central theme the strategic approach of an integrated supply chain model. Its principal objective was to identify the strategic proposition and delineate the structure of the processes utilized in the conduction of an integrated model and to analyze the contributions of the SCOR model to the supply chain management being business studied.

The organizational context studied showed a set of events that lead to organizational realignment, in order to create a structure that would support the growth strategy of the company. This proposition entailed greater relevance of the supply chain function and a leading role in generating value and building a competitive differential. We could find evidence such as the creation of the function of executive supply chain leadership in the organization, as well as the initiatives that concern the construction of the integrated operation model, including the delineation of the structure of key processes that comply with the SCOR model, a definition of supply chain as an essential competence to achieve the business results, and finally the proposal to generate economic results across the supply chain structure, by simplifying both the processes and initiatives of productivity.

It is verified by analysis of the content that there is an alignment between the strategies defined by the business and the planning and operational initiatives of the supply chain, whereby the managers showed complete knowledge of the strategic propositions. The proposal of creating value was related to the delivery of products at a cost that costumers

value, considering the delivery of differentiated products and services. The existence of a formal supply chain strategy and the decisive role of senior management of the supply chain in the conduction and alignment of the strategy could be observed in the interviews, allowing the business to develop a differentiated strategy of supply chain management.

It became evident that the concept of performance is aligned with the proposition of generating value on approaching cost efficiencies and reaching high levels of service to the costumers. It was verified that SCM must be measured with balanced metrics that help identify which elements of management should be reinforced to meet financial and operational service expectations of the costumers. However, the necessity of better alignment among the operational goals was observed, as well as the results that they generate. The necessity of having an adequate operational model that is also competitive, and the importance of the use of its practice and technologies were also discussed.

According to the analysis of content concerning the integrated vision of supply chain, it was observed that there was a realignment of the supply function chain and of the structural function of its processes, impacting the internal flow and how SCM organizes itself to support the strategy. We could observe that it was common knowledge that the business operates in an integrated model of supply chain and that the changes that led to this model occurred after the alignment of SCM with the business objectives and when the senior executive started managing the function. As shown in the interviews the organizational support was structured for the operation, control and development of the integrated model, involving the organization and implantation of practices, aiming to perfect the flows and reduce redundancies in the processes and inefficiencies.

Understanding the importance of the strategic proposition and the structure of processes utilized in the management of Alfa Company's integrated model, the analysis and contributions of the SCOR model to the business being investigated aimed to collaborate in the evolution and recommendation for in-depth initiatives of the existing integrated management model, having the organizational context and the evidence identified in the content analysis of the interviews conducted as a reference. The contributions proposed apply exclusively to the business studied and to the current context. Using SCOR for analysis and contributions to the integrated model is justified by understanding that it would not be possible to accomplish the positioning and contributions of the supply chain operations

without the utilization of a conceptual model and processes as a reference. In this context the SCOR model has been amply utilized as the principal reference model in SCM (Harelstad et al, 2004).

As a result of this study, it was concluded that the supply chain came to be seen in strategic form when the supply chain management function aligned with the business objectives, and from the definition of the supply chain as a core competence to the competitiveness of the company.

The initiatives regarding outlining the structure of key processes in an integrated model and organizational realignment were associated with change in the supply chain strategic function, and they developed the structure to support the strategy proposed. Having a strategy and be seen in a strategic view have different meanings, because when supply chain is developed and seen in a strategic view, it has a relevant role in creating value, supporting operations aspects and accomplishing results. Identifying this strategic proposition and the structure of processes deployed when conducting the strategic model were the objectives of this paper.

The evidence that supply chain management was upgraded within the organizational structure of Alfa Company and the analysis that showed the role of executive leadership in building supply chain function, and the assumptions in creating value are worth mentioning. Also, the supply chain management strategy and its efficiency need to be supported by management elements as well as performance metrics organized in a structured action plan. Within the integrated model context, key processes and the configuration that supports the operation model were pointed out, approaching the initiatives of a customer-driven view and the practices suggested in each process that support actions in the integrated model. Understanding the supply chain integrated model in an integrated strategic and operation view has supported Alfa Company's SCM model, despite Cohen & Roussel's claim (2013) that these are opportunities that the great majority of organizations still use to a limited extent.

The interviews were carried out with managers of the organization, and the desk research used documents and Alfa Company's internal records. Thus, the development of this study had a greater focus on internal practices and processes, rather than a customer- or supplier-driven approach, showing evidence or interviews that would go beyond the organization's limits. Therefore, even understanding the need to keep a more focused scope of

the project, not exploring evidence or interviews beyond the organization's limits is one of the limitations of this paper.

For the same reasons we understand that widening the scope of research and covering an extended view – beyond the organization's limits, identifying ways of interactions, planning and working cooperatively with suppliers and customers, or else understanding obstacles and difficulties of an integrated action can be undertaken in future additional studies.

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