

## **Collaborative Management of Suppliers as an effectiveness and efficiency variable within the Food Retail Supply Chain**

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### **Abstract**

The food industry is currently becoming more competitive and global creating the need in companies to build cooperative relationships with their supply chain partners so as to guarantee maximization of revenues with high service levels. The present study follows this goal and proposes a collaborative supply chain methodology to promote collaboration between partners, fostering the visibility and transparency of the chain, in order to increase its efficiency and effectiveness. The developed methodology is studied in a real context of Sonae MC, a Portuguese food retail company. From the developed studied it can be concluded that it is essential to: build a relationship over a solid foundation, that safeguards the relationship's trust, beginning by a strict internal alignment extended to all the intervening directions with the collaborative partner; define of an unalterable time horizon; guarantee the linkage of an exclusive team to develop the work; define an equitable share of benefits and risks, to strongly build a global supply chain. This work alerts for the need of collaboration within the supply chain, through the implementation of joint continuous improvement practices, as a way to survive to volume, differentiation and intense promotional campaigns volatility, that the food retail is facing currently.

**Keywords:** Supply chain, Cooperation, Supplier, Retailer, Effectiveness, Efficiency.

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### **1. Introduction**

In a time where promotion actions are the major trend, the main challenge in the food retail concentrates in encourage the buying experience along the different sales channels, through customer retention and by offering available products and services where, when and how the customer wants them.

So, the adoption of a demand-oriented supply chain strategy becomes vital to the various retail players. Allying to the observed trends, it allows to truly know final customers' needs, which are increasingly singular, thereby rendering retailers to respond them in real time at low costs. Both suppliers and retailers must stop focusing on only maximizing their own capabilities and operations. They should start developing joint work methodologies, which ultimate goal is to satisfy the final consumer's needs, thus optimizing the supply chain profit as a whole.

The Sonae MC case study proved to be of a particular interest in the described perspective, once it currently does not have an integrated supply chain management, in functional terms, neither has an implemented collaborative management and development methodology of their suppliers. Sonae MC has today a very limited knowledge of their partners and respective supply chains. The reason behind is the fact that they do not develop continual improvement collaborative projects, at chain level, focusing only in punctual initiatives, which return in, often to its own.

The goal of this study is to develop a methodology that will guide the implementation of collaborative relationships between the members of the supply chain. By establishing trust wordy relationships with their suppliers, through the sharing of benefits, they will enhance strengths and redress inefficiencies. Making use of information sharing and processes

visibility, the sustainability of the supply chain is promoted, in a long term continual improvement point of view.

The remain of this paper is structured as follows. In the next section the case study is presented. In the third section is developed a review of the relevant literature. The fourth section, discusses the developed methodology, main goal of the present study. Finally, section five summarizes the conclusions of the study, indicating further research needs.

## 2. Case Study – Sonae MC

Founded in 1959, Sonae is a multinational company managing a diversified portfolio of business in retail, financial services, technology, shopping centers and telecommunication. The mission of the group - create long-term economic and social value, taking the benefits of progress and innovation to a growing number of people (Sonae, 2016a) – aligns with the three strategic pillars of its corporate strategy – international expansion, diversification of investment style and leverage and reinforcement of exception assets and capabilities, are essential for the success of the group in all of their businesses.

In this case study Sonae MC will be analyzed, a company responsible for the food retail that is deeply focused in offering the best value proposition of the market.

### 2.1. Characterization of Sonae MC Supply chain

Sonae MC does not have an integrated supply chain functional management. Each area is independent, presenting its own goals, directives, working methods and responsible people. So, it is important to understand the supply chain way of operation, as well as its counterparts and limitations.

It is important to stress the interlocutors' multiplicity that has a direct contact with suppliers - one to commercial issues, one to stocks and a third one to deal with logistic issues. To highlight that none of the supply chain board members protects the collaborative relationship planning. This happens once the responsible team for guarantying the sustainability of an efficient supply chain, from production till the customer, also manages every-day logistic problems. Thus any strategic work becomes unfeasible.

### 2.2. Supplier-Retailer relationship

The first step was the collection of the collaborative projects or good practices

between the retailer and his suppliers in the last 5 years. Standing out the inventory management, Vendor Management Inventory - currently implemented with 13 supplier; the monthly sharing of the KPI On Time and In Accordance; the existence of a Supplier Portal with finance and transactional information; the implementation on GS1-128 labels in the receptions on Sonae warehouses, and, lastly, the backhauling service.

After wording the Sonae MC efforts done in the short-term, arose the need to understand the main challenges of the supply chain. By analyzing the benchmarking results, performed by both GS1 and Advantage, it was possible to take out some conclusions in regards of the existent relationship between retailer and supplier. From those, the following stand out:

- A business relationship hampered by **multiple correspondents** and a **high turnover**, which was observed in Sonae MC's working teams. This affects experience and value adding process;
- **Exposure and visualization level of product range within the linear**, which is better than its competitors. And also, the effort done in a correct execution of promotional actions, at points of sales, with consequent investment in promotional marketing;
- The most critical point of the relationship concentrates in the **absence of an early planning** of promotional or campaigns season's needs. Apart from the non-existence of information sharing tools, that facilitate the execution of joint forecasts;
- **Problem resolution** as a long, distressing and bureaucratic process, when it comes to payments, occurrences and documentation delivery time.

## 3. Literature Review

### 3.1. The Collaborative Management of the Supply Chain

The collaboration in the SC is the process through which two or more entities of the chain work together onto to achieve a common goal (Mentzer et al., 2001; Sheu et al., 2006), with the purpose to make operations' planning and execution more efficient (Cao and Zhang, 2011), in a way to add value to the final consumer thru the satisfaction of their needs (Facwett et al., 2008), that are increasingly specific and volatile (Simatupang and Sridharan, 2008). Stuart and McCutcheon (2000) state that this process must be based on both parts

core capabilities leverage, in order to enable both parts to take a higher profitability of customers' satisfaction, when comparing to the expected one, when acting alone (Simatupang and Sridharan, 2002; Cao e Zhang, 2011).

The supply chain collaborative management has been repeatedly recognized, in the literature, by enabling higher chain performances (Mentzer et al., 2008), once it promotes cooperation, participation and joint resolution of problems between partners through joint planning and common goals setting (Mohr and Spekman, 1994). So, it is one of the most powerful technical tools to respond to present challenges within the highly competitive global markets, associated to technological advances and successive increase of the consumer's demand. With the increase of competition, the ultimate business success will depend on the management capability of the complex business relationships involved in the SC (Bowersox, 1997). So, only retailers with versatile and agile SC can conquer and maintaining their competitive advantages (Olugu and Wong, 2009).

Cao and Zhang (2011) referred that the SC collaboration enables the establishment of a competitive advantage and enhance the companies' performance – by the satisfaction of the established financial goals (Li et al., 2006), which relationships' impact is directly related to the collaborative entities' dimension.

### **3.2. Supply Chain Collaboration Variables**

To create a collaborative relationship, confidence is the key element that allows its success, being the responsible for sustaining the relationship in a long-term period (Morgan and Hunt, 1994; Mentzer 2001). It is the foundation of flexibility, innovation and agility (Beth et al., 2003). A strong foundation of trust is only achieved when both parties assume that the other is reliable and benevolent (Heikkilä, 2002). Without it, it becomes unfeasible to participants to achieve desired alignment level with collaboration, as well as the commitment and consistency that support the collaborative decision-making (Arli et al., 2013). This way, to set out the collaboration between SC parties and promoting their trust, were defined the following variables, according to the authors Cao and Zhang (2011), Sheu et al. (2006) and Arli et al. (2013):

**Consistent expectations and goals** – Align the individual strategic goals, supported by their organizational values

(Beth et al., 2003). Subsequently, it is possible to define collaborative goals and monitoring them by implementing common metrics and standard operations, in order to guarantee quality and safety patterns (Arli et al., 2013). The degree of consistency of the collaborative goals is translated into the level of compatibility between the goals of each party of the SC (Angeles and Nath, 2001).

**Long-term orientation and Incentive alignment** – it is translated into the employed effort of each party in a lasting relationship. This might be seen in resource sharing, such as time, cash and facilities (Sheu et al., 2006), to ensure the return of the initial investment.

Thereby, the existence of synchronized decisions along all relationship is of the utmost importance, within the process of deciding planning and operations that aim to optimize the chain benefactions (Simatupang and Sridharan, 2002). One of the prerequisites to the collaboration commitment is the positive return expectation to both parties, which implies a clear definition of benefits (Cao and Zhang, 2011).

**Interdependency** – the dependency of one company to another is translated by the need of that company to maintain the relationship with its partner, so that its goals are achieved (Heikkilä, 2002), ensuring in the change of behavior of the dependent party in favor of the one from who it depends (Provan and Gassenheimer, 1994).

**Information sharing** – it is reflected by the amount of relevant, precise and confidential information that is shared in a regular basis between SC partners (Angeles e Nath, 2001; Sheu et al., 2006). Literature describes information sharing as the heart (Lamming, 1996); the essential ingredient (Min et al., 2005), the key requirement (Sheu et al., 2006) and the foundation (Lee and Whang 2001) of the SC collaboration.

**Resource sharing** – it is translated into leveraging and investing into capabilities, resources and assets with other SC parties (Cao and Zhang, 2011). The collaborative initiatives are performed with the intention of improving the efficiency of different entities over the SC (Sheu et al., 2006). Examples of that are the inventory management systems, in which the supplier manages its own product inventory, deciding the necessary quantity of product to order (Sabath et al., 2001).

### 3.3. Collaboration Steps

Upon the awareness of key variables of the SC collaboration, it is important to understand the methodological steps necessary to its implementation, basing on the performed research.

**Internal Alignment** – before initiating a collaborative relationship, companies must get to know its supply chain strategy, apart from its structure and culture. This way, they may assess the value that the supply chain must create and deliver to its final customers (Fawcett et al., 2008). The current supply chain state mapping reveals to be a useful tool to determine what is necessary to do internally and what must be achieved with the external partnership (Min et al., 2005).

The clear understanding of questions related with entities collaboration - such as the definition of the how and why of the relationship, the naming of activities and involved elements and its way of collaborating – are aspects that need to be clarified before deciding in favor of collaboration (Barrat, 2004).

**Suppliers Segmentation and Selection** – According to Arli et al. (2013), the greatest challenge of the supply chain collaboration is the supplier selection with whom it is intended to build corporative partnerships. This is made basing on its strategic value, due to the high commitment level and high time and resource cost needed, which does not allow cooperating with the same depth level.

Tevelson et al. (2013) indicate that the supplier selection must depend on its weight of the retailer's costs within the category. This is, its economic impact and in its ability to differentiate from its competitors when delivering a product or service that is further appreciated by consumers.

In contrast, Noor et al. (2013) refer that the retailer needs to prioritize its suppliers basing on its strategic value, by mapping the supplied products' importance versus the easiness of obtaining them.

Benavides et al. (2012) outline the importance of selecting partners basing on its capabilities, strategic goals and potential value. This implies the assessment of the existence of a mutual interest in collaboration. That is, if both parties have common strategic interests and if the partner has the necessary facilities and processes to build a collaboration.

**Acquisition of necessary capabilities and resources** - Noor et al. (2012)

highlight, that by aligning companies' strategic goals, it is fundamental to understand the way of collaboration. That is, if entities are going to collaborate as partners only to reduce costs, to add value to the partnership or if they aim to work to innovate. The need to dedicate intrafunctional resources and reassure the leadership enrollment from both parties is key. A successful collaboration starts from top and depends largely from its enrollment, both from clarification and orientation from collaboration, as well as the right allocation of the support resources (Benavides et al., 2012).

**Methodology design** – the methodology must be outline with the purpose of fulfilling the strategic goals jointly defined, common metrics to be used and monitoring the impacts of collaboration in each party. It is supported by information sharing, decision synchronization, strategic alignment and process integration within the supply chain (Simatupang and Sridharan, 2005).

**Measurement of collaborative performance: metrics selection and definition** – with monitoring the collaborative relationship as a goal, Simatupang and Sridharan (2005) upload the elaboration and implementation of performance metrics that guide and lead the supply chain members towards performance improvements. For that, the authors highlight the importance of the delimitation of responsible players by monitoring the process, as well as the definition of joint indicators (Brewer and Speh, 2001), result of the traced strategic goals (Lohman et al., 2004).

### 3.4. The Collaborative Advantage

The collaborative advantage, or the joint competitive advantage (Jap, 2001), is referred to the benefits generated by the collaborative partnership in the supply chain, conquered from their competitors (Cao and Zhang, 2011). Those would not be possible to achieve by each company individually (Jap, 2001).

To Cao and Zhang (2011), the collaborative advantage is the result of the 5 following components:

**Process efficiency** – competitiveness level of the partnership, cost related, when compared to its competitors (Bagchi e Skjoett-Larsen, 2005).

**Flexibility promotion** – or presenting the ability of customer responsiveness, is nothing else than the ability of, through collaboration, the company change its procedures, aiming to modify the product or

service characteristics, requested by consumers (Gosain et al., 2004).

**Business synergies** – perspectives, resources and capabilities of group of people and organizations combination, in a way that the return produced by the collaboration is larger than the sum of individual benefits (Shannon, 1998).

**Quality** – the available product by the collaborative partnership presents a higher quality and adds more value than the product available from competitors (Li et al., 2006). According to Cao and Zhang (2011), it is expected that companies that have a fast response to consumers' needs, with great quality and innovation, and an excellent post-sale service, have the ability to build trust wordy relationships with the consumer, thus increasing its market share, due to the consequent profitability increment.

**Innovation** – result of the joint work of supply chain partners to introduce new processes, products or services, in a fast and frequent way, through knowledge sharing and joint problem resolution (Cao e Zhang, 2011).

### 3.5. The Collaboration Benefits

From all benefits from a collaborative relationship, authors like Arli et al. (2013) outline the cost reduction, risk sharing, resource complementarity, fast response, knowledge transference - as a source of ideas to new products (Kalwani e Narayandas, 1995) - and the consumer service improvement as some of the collaborative partnership benefits.

To this study, it is important to refer that the success of the collaboration to the supply chain may be described by "three A's": agility synchronization, adaptability and whole supply chain alignment. The reduced cost and the high speed are not self-sufficient to give a competitive advantage to companies over its competitors (Lee, 2014). That way, Lee (2014) explains that the supply chain must be agile enough to respond to rapid demand or supply changes. Also, it must be adaptable to adequate and align to changes and requirements of the market. All interests of members of the supply chain must be aligned in a way that the maximization each entity owns interests optimizes its supply chain performance.

### 3.6. The Future of Collaboration

To be able to outline the collaboration methodology, it becomes essential to know the retail sector's trends affected by the real consumer profile. Basing on the query report from Capgemini (2013; 2015), that

analyses future supply chain' trends to 2020, the 5 megatrends that impact the most the retail industry and consumable goods are referred. Those are health and wellness (the population aging and the average lifespan increase are two responsible factors from the increased demand for healthy and natural products); the fight for resources (translated into the transformation of urban areas into mega towns, increasing the number of consumers, which is not proportional to resource availability – such as water, power and food); sustainability (the emergence of a consumer with knowledge of the impact of its consumption in the environment); digital world (the technological evolution made available a new way to be constantly in touch with the consumer, through different contact points); and, finally, the future work (the increase of specialized labor, supported by the usage of new technologies and for successively higher educational levels).

## 4. Methodological Steps

Basing on the acquired information, a collaboration methodology was developed, through physical, administrative and temporary flows mapping, aims to joint supplier and retailer in a close collaborative relationship, that promotes improvement opportunities identification and minimizes the supply chain entropies, in a perspective of end-to-end.

One of the currently observed trends is that retailers have been working, in the last decade, in an exhaustive way, towards the improvement of their inner performance. This has been seen mainly when it comes to the implementation of continual improvement practices in their depots and stores, as in the optimization of their processes. These alterations, focused on operations optimization performed within the limits of the supply chain, are eventually, generating a non-quantifiable waste downstream the supply chain. This way, it is necessary to empower the collaboration as a source of knowledge, risk and information sharing, in order to structure the supply chain to have an efficient, fast and accurate response to a new customer, who is more aware and demanding.

Thereafter are individually described the proposed collaborative methodology steps (figure 1), based on the literature review previously done.



Figure 1: Methodological Steps

**1) Evaluation and Selection** – Prior starting any collaborative relationship, it is necessary to understand the retailer’s strategic goals. This way the methodology is based on the needs, strengths and weaknesses of the company, and not on an inexpedient reality of its normal functioning and misaligned with its goals.

After validating the project internally, it is mandatory to select the suppliers that allow the achievement of these collaborative goals. Once the strategic focus of Sonae MC was the supply chain mapping of its suppliers, the collaborative partners selection was based on its financial impact, represented by the depot activity variable, that is, the boxes volume received at Sonae MC’s depots.

However, the suppliers’ range segmentation, of Sonae MC, and consequent selection must not be based only on the activity variable. It must also focus on its strategic goal, namely in the development of emergent sectors, such as health and wellness and the layout of proximity stores.

**1) Characterization** – One way to assess the knowledge and openness of the suppliers to collaborate in the supply chain might pass through the development of a survey, as a tool of collaborative benchmarking. This might also be used to perform a preliminary diagnosis of the collaborative degree of the relationships between Sonae MC and its partners.

The goal was to evaluate the interest/knowledge and the openness of the supplier to the introduction of collaborative practices at the supply chain. Also, the need of performing Sonae MC diagnosis with each of their selected suppliers, in regards of Collaborative Management at the Supply Chain.

Apart from the execution of the survey, the existence of a centralizing tool of all the supplier information is mandatory. For instances, a supplier dashboard that join all logistic, business and stock information. The development of these is of the utmost

importance, due to its transversal to the whole methodology.

**2) Kick-off Meeting** – To convene a meeting with all the selected suppliers to kick-off the collaborative project and to explain the challenge of the joint value creation within the supply chain – through the goods flows to enhance the joint development of continual improvement processes.

Around a scope focused on aspects related to packaging and supply chain – namely information sharing, transportation, distribution, among others – the meeting was to evaluate if both parties are available to allocate the same effort and resources into the collaborative relationship and that they are aligned in the strategic points (Benavides et al., 2012).

**3) Supply Chain Mapping** – Identification and design of processes, operations and materials and information flows, to eliminate waste and to increase the value delivered to the final consumer, for the first improvements to be noticed. The developed strategy to the organization of this meeting would be the follow-up of an order to the supplier of Sonae MC. That is, it would be monitored since its preparation at the supplier’s warehouse until the position of the product in the linear. In a first stage, it would only comprise the logistic platforms, to better understand the logistic operations of both entities and to enhance the visibility and transparency of the supply chain. Later, one of the stores would be visited, as well as its background storage.

**4) Alignment Meeting** – After the mapping meeting, it is necessary to process all the collected data, until present time of the process. Alongside with the identified opportunities, it is important to find a way to position, and later prioritize, the opportunities. The goal is to outline a common plan of actions to both parties, with equitable benefits to them.

After an internal data processing work session of Sonae MC, it was marked an alignment meeting, which goal is to outline an execution plan, from the identified opportunities.

**5) Visiting a store** – The next step is to visit one of Sonae MC's stores. This is an important step once it is the point of the supply chain when supplier and retailer want to concentrate their efforts to add value seen by consumers, who is the ultimate responsible for both parties' profitability. This aims to focus both in listing opportunities at the store backend (product replenishment process; delivery frequency adjustments; pallet optimization development; and background stock availability and knowledge) and at the frontend (availability of product at the linear; product's promotions and characteristics, focusing, essentially, in adequate physical characteristics or its non-handling and replacement and exposure).

**6) Top Management Commitment** – Essential to guarantee that the performed efforts during the execution of this collaborative work are valued, and that it runs until the time horizon established. Its intervention is equally important to validate the plan of actions, resulting from work sessions and to confront the prioritization done by teams with the supply chain strategic goals.

**7) Follow up meeting** – After concluding and validating the plan of actions, it is necessary to certify that the collaborative relationship between partners is monitored. This is achieved by defining performance indicators – that are simultaneously commercial and supply chain's indicators – representing the achievement, or not, of the identified opportunities. To guarantee this, it must be scheduled follow-up meetings, of an agreed periodicity.

## **5. Methodology Implementation and Validation**

After defining the collaboration methodology, it is necessary to implement it to a group of suppliers. The intention is to execute and test to later become an everyday work procedure. From the fact that the methodology was done from the start, within a short implementation period (about 5 months), it was only possible to analyze, almost completely, one supplier. This way, the results work as a basis to continue to develop and improve this collaborative methodology.

This chapter is structured according to the methodology steps. To be noted that the last three steps of the methodology will not be commented or analyzed once none of the suppliers reached its implementation.

### **5.1 Suppliers Evaluation and Selection**

The methodology first step implies the selection of suppliers, as a result of the relevant variables to the execution of this work. This way, and once Sonae MC primordial goal of the undertaken effort was to map the supply chain in order to promote its knowledge and transversal transparency, the suppliers' selection was based in three main variables:

- Dimension: the suppliers' weight was evaluated in their activity in the depots (number of boxes received at the depot). Also, its multinational character, as a source of experience and knowledge.

- Collaborative historic: survey of partners with whom Sonae MC did not fully execute previous projects in which they committed, once its execution, for numerous reasons, was not strategic to the retailers. From all listed motives, the intensity and dimension of the daily problems are highlighted. They prevent the current teams of structuring and supporting collaborative action plans.

- Strategic value: possibility of a relation to create business value. When the directions stress out the supplier as a critical partner with whom it is intended to improve the performance, especially in specific times of the year (like promotional fairs).

Basing on the multi-criteria decision-making process of direct rating, it was presented to the decision maker (the retailer's responsible for the project's implementation) the suppliers' list. Then, the decision-maker should organize the suppliers by a descendent preference order to implement the collaborative project.

### **5.2 Supplier Characterization**

Further selecting the partners' sample with which the collaborative work was going to be performed, it was developed, and consequently distributed, a collaborative survey. For that, the online platform "[www.qualtrics.com](http://www.qualtrics.com)" was used, for the sharing of it to be the most agile and easy as possible. Maintaining the confidentiality, the survey answered by 8 out of 12 initial participants.

Even though the reduce size of the sample does not have a statistical representation, its analysis and discussion is significant to the kick-off meeting preparation. Once the replies constraint the scope of the future collaboration, by helping the Sonae MC interlocutors to prepare their speeches and focusing their attention on the highlighted points as positive or of interest by each of the players.

### 5.2.1 Supplier Characterization

Collection of all information related to the company, pointing its supply chain. The supplier was questioned about its dimension; to its productive processes; to logistic improvements opportunities susceptible to implement in the supply chain and at its range management; and about its supply chain management processes. The obtained data from the reply to these questions were collected in a table, to build the general characterization of each supplier.

### 5.2.2 Supply Chain collaboration

With these questions, it was intended to evaluate the interest and knowledge of the suppliers in the collaboration. Also, it was aimed to perform a relationship diagnosis between Sonae MC and its suppliers, according to the identified collaborative variables.

The importance given, from suppliers, to the development in relationships based on trust between partners is to be emphasized. Trust is key to build long-term relationships, dependent of a quality, periodical and relevant information sharing.

Regarding the collaboration impact into the collaborative performance, all suppliers supported that a good cooperative performance will have a significant impact to reduce store's stock out. About service level, the agenda fulfillment, in time and according to the imposed constraints by the retailer are the most relevant impacts.

**5.2.3 Supplier-Retailer Collaboration** To analyze current relationships between retailer and supplier, questions were asked to: identify adequate areas for the collaboration; evaluate the importance of collaborative practices performed by the retailer in the last 5 years; and to promote sharing of better collaborative practices implemented in its competitors. The later did not have any reply, reinforcing the lack verified in the literature about real collaborative successful cases.

Within all areas, the **forecast making**, about both **purchases** (identified by all suppliers) and **sales** (identified by 7 suppliers) represents the suppliers' priority. To improve the information reliability, which is essential to forecasting, is the suppliers' focus. The primordial goal translates onto the elaboration of collaborative forecasts, that allow to companies to improve products availability and customer service. In a time of intense promotional activity, campaigns and promotional fairs are other focus of

suppliers. The absence of a collaborative planning of these events needs may translate into a lead time discrepancy between the order date and its delivery, which may not be enough to have the products available in linear to the consumer. From the implemented projects, the importance of the Vendor Management Inventory is to refer. Currently the retailer stopped its time and resources investment into the promotion of this type of inventory management.

Finally, a position of market was asked, aiming to understand the openness and willingness of the retailers, compared with its competitors, to develop collaborative practices with its partners. The retailer was considered to be an entity that promotes the challenge to its collaboration partners to be.

### 5.3 Kick-off meeting

To convene all partners, it was send an e-mail describing the work's goal intended to start with each supplier and sharing the generic methodology steps of the project. Those were: planning visits; execute and monitor its results and opportunities. The purpose of the meeting was to delimit which suppliers had the necessary openness, enthusiasm and resources – mainly time and human resources – to start a collaborative work with Sonae MC.

From these meetings with suppliers, the aspects highlighted were: need to perform an internal alignment to share strategic goals defined to the future project; the possibility of creating an interdisciplinary team; the time horizon definition; the relationship monitoring; the supply chain sustainability with the future monitoring of economic impact from changes; and the need of the work to be oriented by a Kaizen tools specialist.

The sharing of the visualized presentation that guided the meeting (goals' details, outputs and implementation methodology), was important for the supplier to proceed to an internal strategic alignment. Also, the supply chain mapping template, developed by the supplier, for the next step time was booked to discuss identified constraints and opportunities.

### 5.4 Supply Chain Mapping

One supplier only completed this step. To perform it, a complex work agenda, previously detailed, was followed during a whole day. The session, performed at the supplier's installations, had the following 5 resumed steps:

- Institutional presentation – players' framework of the organization and supply chain management operation board, including a brief description of its logistic network;

- Planning and execution of sales forecasts: monitoring the reception and integration of an order from the retailer into the supplier's system and later explanation of the forecasting steps. It is aimed to identify the main existing constraints in the most urgent area pointed to collaborate. After the order placing processing and availability, the working team must go to the depot to follow its preparation. The Manager of Operation of the main warehouse joined this visit, to be the one to guide the visit, following a routine picking procedure.

- Route to market: due to Sumol+Compal flow complexity and diversity, some representations without a detailed listing of all value chain procedures were developed. This will be processed in the next step. A simple and direct representation of the covered route of a product, since its production till the moment of its linear placement, was performed;

- Flow mapping of goods: once the template was previously shared, this step was to simply validate the mapped flows.

- Improvement opportunities and Action Plan: according to the flow complexity and diversity, one day may not be sufficient to perform this step. However, the identified opportunities and constraints were listed, to later develop a plan of actions.

At the end of the working session, a retailer depot visit was performed to verify the conditions of the reception of goods.

At the end of the day, it was agreed, between both parties, the need to schedule a meeting to compromise both parties' top management, involving the direct responsible of the supply chain management. The goal of the meeting is to mark-off and validates a plan of actions matching both strategic goals.

## 6. Conclusions

From this work, it was possible to conclude that the implementation of a collaborative management methodology is within the retailer's reach. The main barriers and constraints to its implementation relate firstly to the current management model of the retailer. In this case, there is no integrated management at the supply chain, translated not only into the decentralization of information by multiple interlocutors, but

also by the lack of strategic alignment of the retailer, at the involvement of supply chain projects. Simultaneously, by focusing in optimizing internal operations, without considering its loss at the supply chain and by having a reactive activity within the information sharing (result from the mistrust between players) are the other identified barriers, that demand a prominent alteration of attitude between both parties.

Once this methodology was only applied partially to one supplier, to execute with other suppliers there will have to be done efforts towards its validation. The methodological range might do this to other supply chain partners, namely logistic operators.

In the long run, literature must promote the sharing, and consequent publishing, of real collaborative cases, highlighting the need to work closely to companies, as a source of practical knowledge of cooperating on an ongoing basis with suppliers. Also, future studies must focus on the way of organizing and structure the supply chain, in order to enhance collaboration, highlighting the need of maximizing the performance of the literature's identified variables. The connection between practices and continual improvement tools and supply chain collaboration is other significant current themes within this scope.

At last, the importance of studying the weight that the collaboration might have on environmental sustainability is to be referred. In a decade characterized by drastic behavioral change of consumers, that are more aware of its consumption on nature.

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