Value through logistics

A case study approach

JOSÉ CRESPO DE CARVALHO

ABSTRACT: Sara Lee Corporation is involved in a European redesign of the whole Sales & Operation Process (S&OP). This case study approach explains the movement from a decentralized and localized to a collaborative and consensual demand planning process; based on a constructive approach, it tries to enrich what one may call Network Theory. Major findings and results emphasize the importance of organizational change, which became a key issue in comparison with the forecasting process alone. Additionally, observations have identified a large gap between what is considered to be the role of logistics in the organization and its real influence and tasks.

Key words: Sales & Operations Process, Forecasting & Demand Planning, Logistics & Supply Chain Management

TÍTULO: Valor pela logística: uma aproximação por caso de estudo

RESUMO: Pretende-se com este artigo explicitar a importância do planeamento e, em particular, do planeamento colaborativo na gestão da cadeia de abastecimento com vista a minorar erros, aproximar estruturas, fiabilizar as previsões de vendas e todo o planeamento daí emergente.

Palavras-chave: Processos de Vendas, Planeamento e Previsão de Vendas, Logística e Gestão da Cadeia de Abastecimento

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THE EVOLUTION OF THE SARA LEE GROUP

The Sara Lee group was set up in 1939, when Nathan Cummings bought a small sugar, coffee and tea distributor in Baltimore named C.D. Keanny Company. Being an innovative businessman, Cummings rapidly expanded the C.D. Kenny Company with the help of a number of management techniques.

Since then Sara Lee have acquired several companies and developed internationally. In 1942 the name Sprague Warner - Kenny Corporation was adopted. In 1945, under the name of Consolidated Grocers Corporation, the company entered the New York Stock Market. In 1953 there was a fourth name change to Consolidated Foods Corporation. With the acquisition of the Kitchens of Sara Lee, in 1956, the company began to ensure a strong position in the market of frozen products.

This last acquisition was immediately followed by the first international acquisitions, i.e., Dutch Jonker Fris, a canned food producer, and a Venezuelan company of vinegar and sauces.

In 1966 Sara Lee bought the first non-food company, called Oxford Chemical Corporation, a manufacturer of cleaning products. In the 70's other companies were assimilated, namely Bryan Foods, Hillshire Farm and Rudy's Farm, so the company entered new markets, such as direct sales, clothing and personal hygiene, also through several acquisitions.

In 1976, Consolidated Foods Corporation organized the globalisation and diversification in three distinct product lines: food & beverages, underwear and home products.

Finally, and in 1985, the company adopted its current name, Sara Lee Corporation, when it was already a global manufacturer and seller with a strong consumer goods package of high quality products and with a well-known brand name and deliberately very marketing oriented.

Since then Sara Lee has continued to develop its global business, creating products and expanding to new markets.

Sara Lee is the current global market leader of packed meat, frozen meat, coffees, shoe polish and underwear. It has approximately 140 000 employees in 58 countries and sells its products in 180 nations.

In 2000, Sara Lee adopted a new vision and is nowadays reformulating its business portfolio, centring itself on a small number of global segments through new acquisitions.

Each local entity plans and manages its order cycle in close relation with the productive centres. Those centres, based on local orders, promote the execution of the production plans so that they satisfy local companies that are named OpCo's - Operational Companies. Distribution activities are done by external companies which are specialized in transportation and storage management services.

Several OpCo's used forecasting and planning processes which are not foreseen or lined up with business strategy, led by sales and marketing and with very limited tools and visibility.

As a result, there were problems with service levels, communication interfaces (and the communication itself) and with the delivery windows in the whole supply chain.

BEFORE EuRoPe PROJECT

Planning was done annually based on the strategic objectives defined by OpCo's, leaving aside some internal and involving features.

Due to the very poor reliability of this planning, the relationship between what was planned and the reality frequently became difficult; thus two situations could arise: (1) the planned supply was bigger than real demand (this phenomenon originated inventory creation, which was not seen in a good light by Sara Lee's international management; the stock was drained by frequent use of promotional activities that reduced business profitability); (2) planned supply was lower than real demand (more common phenomenon due to Sara Lee's international structure), which put a lot of pressure on OpCo's not to overvalue demand, so that inventory exceeders were not created and, more importantly, manufacturing centres were not overloaded with useless production; Sara Lee's international structure imposed penalties that almost obliged local managers always to plan below expectations, resulting in great stock outs in supply chains.

Even though manufacturing centres were considered to be excellence centres, they ended up by accumulating several problems, specially due to: (1) the management difficulties resulting from the high number of manufactured references; (2) the supply chains with low response capacity; (3) the excessive importance given to short range demand planning; (4) the high inventories originated by excessive delivery frames, and, finally, (5) the uneven treatment of regional business with OpCo's, favouring units of the same nationality.

At the same time, manufacturing centres were used to pressuring local units to increase their orders; on the other hand, international management pressure restricted local forecasts (see penalties). Real factory production figures higher than OpCo's aggregation plans was frequent because they were aware of the local companies' tendency to under order.

THE EuRoPe PROJECT

Project Emergence

Sara Lee recently decided to install a management-integrated system - ERP: Enterprise Resource Planning System - for all Europe so that it could fight the information formats variety that circulated in the OpCo's network.

The main causes for this decision were the need to have uniform and accessible information at any given moment which provided timely knowledge and decision-making, together with the introduction of a new single currency for most European Countries that would force investment in the renewal of information systems.

EuRoPe program began as a result of these needs and its name derived from ERP for Europe. Several preliminary requirements were defined for the successful implementation of an information system centred project; one of these was set in the standardization of operations so that implementation was simpler and success could be guaranteed.

It became possible to standardize operations after an exhaustive study of the best practices, so that the one which best served company strategy and objectives at the European level and in all the OpCo's could be chosen.

The EuRoPe Solution

The United Kingdom business unit (UK OpCo) was the model to follow for Sales and Operations Planning. All European units implemented the same processes though with small local adaptations.

Sales and Operations Planning (S&OP) has recently become a structured collaborative process, repeated monthly - in meetings - and with well-defined steps. This

S&OP exercise results when forecasting is considered at the same time as business strategy and objectives in order to successfully come to a consensus about demand, and foresee the effective establishment of supply plans.

The global planning process is developed in three time frames: (1) one known as strategic - done annually and with a three year duration (an Annual Operating Plan is prepared in each OpCo which is afterwards joined, European wise, by Sara Lee's European Division - SLED); (2) another known as tactical - monthly and with an 18 month horizon (where the OpCo's and manufacturer centres participate; with regular feedback to the SLED); (3) and a third one referred to as operational (done by both OpCo's and manufacturing centres; also with regular feedback to the SLED) - weakly/daily over 18 weeks.

This is meant to ensure that the Sales and Operations Planning (S&OP) is tactical and medium to long range (0-18 months). This process allows the evaluation of the monthly performance and a brand-by-brand forecast for 18 months - supported on an agreement between marketing, sales and operations areas.

This process needs strong teamwork, is technologically supported/facilitated and allows the integration of all the business parts (SLED, manufacturing centres and OpCo's) in the making of an output that will be the foundation for the supply plan (demand plan omitted).

Sales and Operations Plans (S&OP) will feed manufacturing planning processes. Manufacturing centres can therefore dedicate themselves exclusively to production: production programming.

Planning will be aggregated and thought about at an European level; thus local planning will be aligned with the European planning cycle.

Running a new planning system is creating a more tactical business vision and increasing the time span to 18 months. Updated information of the available capacity, increase of demand visibility and promotional seasonality as well as support for future capacity planning, among others, are some of the factors that allow real improvements.

Greater availability and information share will allow advances in decision-making and, consequently, create a more flexible and available supply chain, with less cost and more standard processes.

This solution takes time to be implemented and will only have visible results when the whole supply chain implements it, which requires the involvement of all business units, the responsibility of the entire human capital and superior systems' performance.

The Planning Process

The Sales and Operations (tactical) Planning (S&OP) Process reworks the available information and identifies the questions that can arise at each moment of the implementation, thus becoming a process of constant problem solving and prioritisation.

This methodology solves problems at the lower levels of the company and human resources involved in analysing the question take measures to resolve it at every step. The problems requiring a higher authority level, and that must be solved higher up, are sent to a higher hierarchical level with a recommendation attached.

The steps for the Sales and Operations Planning (S&OP), centred on each of the OpCo's perspectives, are:

- 1st step: Sales and Operations Planning starts with a meeting between the marketing managers, account managers and the head of each OpCo planning. The launch of new products, promotions and marketing activities, sales history and the business objectives are discussed at this meeting, all of which result in a Demand Forecast document at the OpCo level;

- 2nd step: with the Demand Forecast - in volume - each OpCo planning head will meet with the business group manager and regional account managers at European level (SLED); together they reach an OpCo Consensual Demand Forecasting taking into account the demand previsions in value, the clients' accounts planning and the business objectives;

- 3rd step: the meeting between the sales director and the marketing, the finance, the client service directors and the business group manager takes place for each OpCo at this stage and after the Consensual Demand Forecasting. Sales performance, sales forecasting, annual operational plan, inventories, the whole promotional and publicity calendar and the marketing plan are used for this purpose, all of which is analysed by client, product and business type. Based on the information collected an agreement emerges regarding the actions that need to be taken and to be implemented in the near future. In documental terms, volume and value forecast are produced, profitability, margins, market share and, mainly, a Demand Plan (and not just a forecast);

- 4th step: this step can take place before or after the 3rd step. Its purpose is to evaluate the client service level, future risks and system vulnerabilities with a view to envisaging hypothetical actions to minimize them. In this step, a meeting takes place between the client service director, the raw-materials manager, the warehouse manager and the head of demand planning. Data for discussion emerges from supply chain performance, upstream and downstream, finished products inventories and from the Consensual Demand Plan (this step is taken at the level of each OpCo);

- 5th step: this is done by the client service director alone, focusing the decisions taken in the 3rd and 4th step, the annual objectives, previous monthly performance and agreements reached in previous meetings. As a result of this task a Supply Plan is obtained, in which the changes, problems, risks and vulnerabilities by product type are documented, up-dating the performance indicators, the reports and the measurements that will be distributed to those participating in the 6th and last step (at the OpCo level);

- 6th step: this step is sustained by a meeting, which is again intended for top management of the local unit (OpCo), in which the marketing, sales, finance, client service directors and business group manager participate. At this meeting, documents from previous meetings are analysed and its main objective is to reach an agreement so that there is only one forecast (and a common vision) of the Sales and Operations Plan (S&OP). Therefore, all the practices of all the functions are lined up to minimize risks and mistakes during the remaining time of the fiscal year.

Finally, all the plans of the OpCo's are joined and aggregated at the European level (SLED). Additionally, they will be balanced with the existing inventories and manufacturing capacity installed. The investment and the capacity planning emerge from this data, which is coordinated with the development of new products and, if necessary, the renting of capacity from third parties.

Several functions inside the structure of the operational units are affected by these transformations, mainly those in charge of the demand planning and marketing. Other functions also suffer from the impact of new processes, specially the commercial director, the client service director and the local unit management team. Due to the traditional concentration of the local units in marketing, the marketing director is (theoretically) still responsible for the local planning process.

MAJOR FINDINGS

The Sales and Operations Planning (S&OP) process is the quick-start that, according to the Sara Lee Group, will allow business objectives to be reached. To do so, it integrates all the activities of the local units and looks for a consensus, anticipating problems through collaboration between functions and allowing performance analysis by means of standard measures.

The improvement and reliability of supply, aligning all the activities and internal actions, begins to allow system capacity visibility for 24 months, leading to an increase in the product availability and customer satisfaction, and it has improved all the performance of the local units.

In addition to these improvements, each OpCo has registered a drastic decrease in delivery times - in peripheral markets from 4 to 2 weeks - and, at the same time, safety stocks and exceptional requests to manufacturing centres have been reduced; however, much more can be achieved.

Basically, the project seemed interesting and gave logistics an important role that it had not had previously.

However, a paper that describes a case study and its follow-up should answer two central questions in methodological terms: 'what' and 'how'. The 'what' would be the substance and the scope of the study (or its focus), such as has been defined in the investigation problem and its theoretical foundation. The 'how' is the method, including material collection, analysis and reporting. In theory, the case study can be considered good when 'what' and 'how' have been well answered (Sarv, 1991).

The answer is relatively simple in terms of the method, i.e., a structured approach was developed by stages, followed by a compilation: (1) contents analysis and semi-structured interviews with the OpCo members, both at higher and lower hierarchical positions; (2) finding the common points among the various interviews that were conducted, determining and clearly presenting the patterns and similarities; (3) matching between the theory, the convictions from the literature and the subjectivity of the theory and observation results; finally, (4) an attempt to qualitatively generalize the results in order to form theory (Yin, 1994).

If the approach is constructivist, as it was in this case study, the practical relevance of the problems seen *ex-ante* by Sara Lee and the connection with the theory should be responsible for building up a problem solution - as they were in creating a different approach to the S&OP process. Even so, one has to consider the subsequent phase, i.e., the final results, still far behind the theoretical possibilities and away from all the solution's effects, roughly influenced by the dynamics of the system itself (see fundamentals of systems theory: Forrester, 1958). Thus, more and different contributions to the theory are expected during this process, which is still underway. The qualitative generalization proposed by Yin (1994) can therefore be enriched in the future.

Nevertheless, the work was certainly directed by a 'what'. The 'what' started with the study of how an international company with several local OpCo's recognized its handicaps in forecasting matters and launched a re-structuring of the whole forecasting process at an European level. With the development of the study, the 'what' ended up focusing more on organizational change than on the technical perspective of carrying out the forecast exercise - although conscious that they are strongly related.

Given this, the main focus was altered during the study; at first the objective was to try to study, (1) the planning model and the forecasting model which was considered obsolete and its results, (2) and also the model to follow in the future, by introducing new practices, information systems and connecting several local places, including the results and comparing the accuracy of both approaches; later, however, the organizational change brought about by this modification was the focus. It is a fact that the organizational change affected a lot of areas and powers, more or less instituted, and that were clearly altered from *ex-ante* to *ex-post*: the modification of the roles of the head of each OpCo, the marketing director and client service director become an extremely interesting analysis focus in the light of the changes that occur.

This was found to be so important in relation to the activities of these three members and their teams, even knowing the power that marketing had and still has in each OpCo, that it became the main object of the whole approach (or the 'what').

It was then confirmed that the initial forecasting model, almost exclusive to each OpCo, was definitely decentralized and based on the extrapolation of trends, which were almost always based on simple linear regressions or moving averages - always in a very conservative way. When it went to the new approach, the important modification was verified at the level of establishing consensus and the sharing of results and not at the mathematical methodologies applied basically the same.

So, the new S&OP approach became collaborative and always pursued consensus, both at the local level (OpCo) and at the central level (SLED). On one hand it is very aligned with the DRP (Martin, 1995) approaches and, on the other hand, it is aligned with the CPFR - Collaborative Planning, Forecasting & Replenishment developments (www.cpfr.org) (although only at the internal level for the moment, i.e., the Sara Lee group itself).

Given this, the new methodology is much closer to the assumptions of the Network Theory (NT) than to the presumptions of the Transaction Cost Analysis (TCA). Nevertheless, it was not yet possible to confirm if this internal movement - that has been of benefit to the Sara Lee Group in Europe - can retain the same levels of collaboration when transferred to the clients' and suppliers' environment. It is not even predicted that the opportunist behaviours of the agents (central to TCA) and their limited rationality over time - even within the group - will not minimize the results already verified with collaboration.

For now, the consensus and the collaboration have become the planning centre. The evaluation and the strict follow-up of the results has also become a constant.

Although marketing was considered to be the centre of the whole OpCo activity, this was not the major conclusion after the modification, even if the Sara Lee group retains that idea. In fact, that modification led to the client service director having greater visibility and power than he had before; there were several reasons for this change: (1) the marketing director became an information supplier for the S&OP process, for new product launches, promotions or product phase-outs; (2) the marketing director also started to have a determinant role in client management and in promotional actions with clients; (3) production started to have a central role in the information supply to the S&OP process, namely regarding stocks and production capacity; (4) the supply planner, at central level - who joined each OpCo's planning - as well as the client service director and the head of each OpCo planning started to participate in all S&OP activities and played a decisive role in the planning and distribution of productive capacity for each OpCo; (5) this means that logistic activities attained a level as yet unknown in the company.

In fact, it can be questioned whether marketing still has the importance that it has always had - and that it's theoretically given - or if logistics has won that same influence, albeit in an unrecognised way?

CONCLUSION

With this type of approach it was possible to join a set of qualitative conclusions that strengthen or weaken the theoretical components presented by several authors. These conclusions are now presented:

(1) it is possible to say that this approach made a strong contribution to the creation of polyvalence in the performance of a number company actors, against the postulated functional specialization proposed by Taylor (1907; 1990);

(2) both from Weber (1922; 1992) and Fayol's (1916; 1981) points of view, the ideas of leadership, authority and hierarchy in an organization are substituted to a great extent by consensus and collaboration, approaching the action of the Network Theory;

(3) even Drucker (1974/1977) is contradicted when proposing the work oriented to objectives, especially when sustained by functional organizations. In fact, if the orientation for objectives is untouchable, the way to obtain it does not necessarily involve the price of excessive functional specialization;

(4) Porter (1980) does not benefit from this approach either as, to a certain extent, it contradicts the need for a deliberate choice of a strategic path, being of lower cost or differentiation. In fact, what Porter (1996) calls operational efficiency is elevated to the strategic category (the S&OP process);

(5) Hammer and Champy (1993), with the business process re-engineering approach, allowed logistic to be more notable and have a real strategic tone (Fabbe-Costes & Colin, 1994; Christopher, 1992). Consequently, Network Theory came out as being an obvious winner and also the basic logistic context (Gadde & Håkansson, 2001; Doz & Hamel, 1998; McCormak & Johnson, 2003);

(6) lastly, it is also possible to say that all the approaches that have given more visibility in terms of logistical thoughts and practice came out winners. Since the pioneer recognition of the company modelled by flows (Forrester, 1958), most academics defended logistics as a management principle and a guide for management decision (Tixier, Mathe & Colin, 1998; Christopher, 1992; Carvalho, 2002).

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Avaliação de desempenho e *earned value management* em gestão de projectos

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RESUMO: É estabelecida uma ligação entre a avaliação de desempenho em gestão de projectos e o Earned Value Management. *A metodologia proposta inicia-se com a definição de objectivos do projecto e com a criação da* Work Breakdown Structure, *integrando, de seguida, a programação, recursos e custos e concluindo com a avaliação de desempenho com base no* Earned Value Management.

Palavras-chave: Gestão de Projectos, Earned Value Management, Avaliação de Desempenho, Gestão de Âmbito, Planeamento

TITLE: Performance appraisal and earned value management in project management

ABSTRACT: A connection is established between performance appraisal and Earned Value Management in project management. The proposed methodology starts by defining the projects'goals and generating the Work Breakdown Structure followed by an integration with scheduling, resourses and costs, finishing with performance appraisal based upon Earned Value Management.

Key words: Project Management, Earned Value Management, Performance Appraisal, Scope Management, Planning

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