

## Implementing a Logistic Structure of Distribution Offices: A Brazilian Case

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### **ABSTRACT**

*New market globalization requirements typically force an organization to re-vitalize its logistic systems to maintain its competitive edge. This case study is of Trombini Packings Ltd., a company with a strong regional presence in Serra Gaucha, Brazil whose performance is concentrated in the area of packaging. Packing was originally organized to just meet demand. Since their customers' main strategy was to avoid "in house" stock, it provoked economy scale losses and therefore the management had to act. The case illustrates the changes that occur in a supply chain management process centralized in a logistic structure of distribution offices and presents all the facts that mark the story from the identification of the clients' necessities to the implementation of the solution, which resulted in higher clients' satisfaction and fidelity gains. The case is ideal for courses in logistics, strategy, marketing and services management.*

**Keywords:** Business Strategy, Business Management, Supply Chain Management, Logistic Structure, Clients' necessities.

## **INTRODUCTION**

Trombini Packages Ltd is a regional firm which operates in a highly competitive context. Its core business consists of fabricating wavy cardboard package of various purposes. Considering the particularities of its business, the company has a great amount of customers. For each one, the production is made through service order, once the products have been designed and personalized. In these conditions, Trombini Packages Ltd suffers economy scale losses by usually producing in fractioned quantities since their customers avoid in-house stocking.

Besides the importance of a well-organized production area, one of the critical factors for Trombini Packages Ltd success is the existence of an adequate and efficient distribution system, with has the ability to deliver on time and in specified quantities. This factor is usually one of the most conflictive subjects between the company and its customers, once the clients require punctual and regular delivery in small quantities. From the point of view of Trombini Packages Ltd directors, it elevates logistic costs and has negative impacts on the company's competitiveness.

The purpose of this case is to present a recent conflict situation between Trombini Packages Ltd and one of its customers. The narrative is about the process lived since the recognition of the customer's needs up to the solution found to end this impasse, from the point of view of the company's employees. It also reports the benefits such situation brought to the company and the use of this solution for other similar situations.

## **CASE DESCRIPTION**

After a very hard working day, John was finally getting back to his town. It was almost night and the traffic was worse than usual, but that day, that was not bothering the salesman of Trombini Packages Ltd.

John had just left a meeting with the purchasers of OWC Inc, a shoes company with more than 20 branches in the State. OWC Inc was surely the biggest customer of Trombini Packages Ltd and had a great importance for the company's business since this client represented about 2% of the total company profit. In a spread out sale policy as it was at Trombini Packages Ltd, this amount would put OWC Inc among the top five company's customers.

The business characteristics of Trombini Packages Ltd had interesting particularities. Once it produces cardboard packages that are designated to pack several and different products, each customer had to be treated differently with specific products for their needs. So on one hand, the production had to be planned under demand, to avoid production overflow that could not be sold afterwards. On the other hand, the need for big amount of orders was practically a necessity, especially if it considered the production costs based on personalization. It was exactly for understanding this dilemma very well that the words by the purchase manager at OWC Inc were still echoing inside John's mind:

\_ We look for a supplier that may deliver in every of our branches practically every day.

There had been some time that the purchasers of the shoemaker were mentioning this problem and asking for a solution. The little stocking space available in many of its branches was demanding them to purchase in smaller quantities than Trombini Packages Ltd could offer. On the other hand, John knew that fractioning lots would mean a loss in productive competitive cost

advantage for the company. He was aware something had to be done, although he believed that the head office would never accept any situation like that. The aggravator of this situation, however, was the definitive tension resulting of the meeting: either Trombini Packages Ltd would find a way to deliver at every OWC Inc branches daily or they would look for someone else who could do that.

Deeply concerned, John took his cell phone and quickly dialed Paul's number – the sales manager of the company – to tell him about the problem.

The morning after, the day started with some turbulence at Trombini Packages Ltd head office. Still not aware of the situation, the Superintendent Director, Louis, did not yet took some time to make himself comfortable that his sales manager Paul entered in his office. Louis knew Paul for many years and was well able to perceive when Paul had a problem. That morning, when Louis saw Paul entering the room, he quickly asked:

\_ Good morning, Paul. So soon in my office? What's the problem now? – Louis asked as a joke.

\_ Good morning, Louis. Actually, we really have a problem. Yesterday evening, John called me and said OWC Inc had a new demand. They ask for smaller lots, with daily deliver in every their branch – Paul continued the explanation.

Louis had gone a long way within Trombini Packages Ltd up to the job of Superintendent Director. He knew the company very well and that, even selling specific products for each customer, their production scale was one of their great competitive factors. For the last years, Louis followed a process of smaller and smaller orders, which was creating a greater problem for the company's production.

\_ Look Paul! I know OWC Inc have complained for some time on the size of our lots. However, you have to analyze a greater importance for us: the economic viability of our lots in production.

\_ I know that, Louis. But you know better than I do that this company is a very profitable account for us – answered Paul.

Louis got thoughtful. He had already been to Europe and knew how things were working over there. He still remembered his visits to packaging companies over the European continent. He has met, for instance, a German company that had an expedition of almost five times bigger than its own production area. This was the tendency in Europe: expedition areas much bigger than productive areas would allow the stock to be held inside the company itself; it would not prejudice physical production space for their customers' factories. In Brazil, however, the situation was reality quite the opposite. The expedition area of Trombini Packages Ltd, for example, was considered small if compared to the total size of the company.

Louis, then, got up and invited Paul to go to the expedition area. Along their way, Louis questioned Paul about the movement in the sector for the last few days. He confessed his idea was not to decrease their production lots, but to organize them in such a way to produce in scale only to distribute in smaller fractions than the ones they were used to up to now. To do so, it would be necessary to create more stocking place for finished products, a possibility the company did not have at the moment.

When they arrived at the expedition area, both perceived there was no free space at all. It meant the organization of OWC Inc. stocks could never be stock in this sector. The idea of increasing physical space of expedition had already been discussed and analyzed other times by

Louis and other sector leaders, but the company had no space to increase the area of this sector in the current plant.

Another question they had analyzed was the hypothesis of renting a plant some miles away from the company, which could work as a second expedition sector, but it did not seem to be a good idea for Louis. In this case, things could work a little different from the initial idea. For example, in this new building, the company could stock finished products and still organize delivery lots for the OWC Inc. products. There was the possibility of the OWC Inc. production be done in even bigger lots as well, which would compensate, in a scale production, part of the expenses Trombini Packages Ltd would have in stocking. It was only a question of negotiation and prudence from an operational perspective.

Ninety days later, the new distribution system was already working in perfect conditions. A software had been implanted to allow a better communication between the two companies. OWC Inc. communicated needs and Trombini Packages Ltd delivered in every branch almost daily. A contract had been signed between the two companies, considering that everything produced had to be consumed by OWC Inc., in order to avoid Trombini Packages Ltd to produce material that might not be delivered or paid by OWC Inc. Also, it was jointly established a quota of produced material to be in stock before being included on an invoice and delivered.

Trombini Packages Ltd suffered a cost increase with the rent of its new plant but was partly compensated with a production gain in bigger lots than the old ones. From this successful project at the head-office, Trombini Packages Ltd started to pay attention to similar needs of other customers. In one of its visits to the expedition sector, piles of boxes stocked for Milk Inc called Louis' attention. Milk Inc. was one of the major customers of the company as well. They commercialized milk and had their head-office about 44 miles away from Trombini's plant.

Trombini Packages Ltd used to produce big lots to be sold later on to Milk Inc., and stocked at the company's expedition sector. These products were occupying a significant physical space and Milk Inc.'s complaints were similar to those from OWC Inc. Both did not have enough space to stock these packages in great volume. In order to solve this situation, there was the possibility to send Milk Inc.'s stocks to the new plant, where they were already organizing OWC Inc.'s stocks and distribution and, if possible, stocking other customer's products as well, but Louis did not like the idea. He was considering something more daring. Louis, then, arranged a meeting with Paul to tell him about his action plan.

\_ Paul, I've been observing the movements in our expedition sector, and I've paid attention to the whole stock of finished products for Milk Inc. I was wondering if we could work with this company the same way we now work with OWC Inc.

\_ Actually – answered Paul – I have already seen that stock of boxes due to Milk Inc., but they do not accept bigger lots delivery, once they do not have stocking space available. It would really satisfy Milk Inc to assume this situation, but we would have to re-organize ourselves to see if we have enough adequate stocking space.

\_ That's the difference. I was considering not using our current stocking areas. We could rent a plant near Milk Inc, so we could get closer. We would verify if other companies in the region have a potential to work the same way, and use this plant for their distribution needs. In practice, it would work as a Distribution Center (DC) in the region – concluded Louis.

Paul got thoughtful. He knew very well the concept of DC, but could not imagine it would be used someday in the packaging sector. He knew that in logistic, DC's have taken more and more space for the last years. As companies have no large spaces for stocking, suppliers were obliged to maintain for a longer period their stocked products before delivering them to

their customers. To gain agility and not losing time in transportation for each delivery, companies started to use DC's to get closer to their customers. It would then decrease the delivery time for each order as well. DC's were very common in Brazil, but mainly for companies that commercialized few diversified products, not for companies that had to produce specified products for each customer, which was Trombini Packages Ltd's case.

\_ A DC?! – exclaimed Paul.

\_ Exactly – answered Louis. After the production we would send the finished product in big lots to the DC. On a counterpart, Milk Inc. and other customers from the region that will work with our DC shall send us a delivery program. Thus, we could produce lots even bigger than now and deliver smaller ones, what would considerably please Milk Inc. and any other customer to use this service.

\_ It could really be interesting – said Paul, still surprised by the idea.

\_ First of all – continued Louis – we need to study companies from that region that buy a considerable volume of orders in a short period of time. Companies with potential to use services of the DC we are going to organize their space.

\_ No problem, Louis. I can do that today. Tomorrow we may talk about that.

\_ Besides – added Louis – I would like you to try to budget every cost related to implementing and maintaining a DC.

\_ Ok. Maybe this would take a little longer, but you shall not worry. I'll see that right away.

The following afternoon, Paul enters in Louis's room with some data. Paul presented tables with the name of the major customers from the region where they intended to install the DC. Louis agreed with those names and started to analyze the second report presented. Paul and

his team had elaborated a complete budget with costs of a DC in that region, besides the gains estimated by the production sector in operating with bigger lots. The budget included the financial cost of the stock that the company had to assume, besides an analysis of the financial manager confirming such financial capacity.

With such information, Louis arranged a meeting with all managers, besides the sales supervisor from the region where the DC would be implemented and sales people responsible for the identified customers. He asked for the research of an adequate place for the DC and appointed a responsible person to manage it.

After some meetings, the project was approved. From now on, Louis and Paul insisted on personally visiting companies to present the project and sign new contracts, making clear that the products produced to be stocked at the DC had to be bought within a limit deadline established for each case.

Nowadays, after five years of the implementation of the first DC, Trombini Packages Ltd has already three DC's within the State of Rio Grande do Sul, besides a DC recently opened in the neighbor State of Santa Catarina, where the company also had a considerable volume of customers. Currently, among the total sales volume, the DC's do distribute for 15% of the total production. The initiative, still unique in the sector, became an important differential for the company, for maintaining its operating DC cost thru a bigger lots production capacity.

After implementing such initiative, production lots became in average five times bigger than the ones used with the same customers in the former process. One other major advantage was also raising new customer adhesion. The partnership developed between Trombini Packages Ltd and its customers made them less vulnerable to possible new packaging distributors, because

the company started to offer not only packages, but also a whole product delivery service according to the customer's order, not forcing them to maintain a high amount of stocks.

## **TEACHING NOTES**

### **Recommended use**

The case was elaborated to use in logistics assignments (generally), strategic assignments (especially related to competitive advantage), and marketing assignments (concerning services to seek customers' adhesion). The case is preferable applicable for undergraduate courses.

### **Learning objectives**

The case offers the opportunity to understand and discuss either the logistics question or the strategic matters, once it involves a situation of reconsidering the logistics functions of the company with its impact over the whole organization. The objective is to approach and allow reflection over various learning subjects. Among them:

- to learn current practices on logistics;
- to understand the importance of innovation in the organizational environment;
- to learn the necessary abilities for an entrepreneur facing a decision-making situation;
- to analyze the relationship between cost and competitive advantage;
- to understand the perception of the current tendency to aggregate services as a way to adhere customers to the company.

### **Case application**

In order to fulfill the proposed learning objectives, it is suggested to professors to adopt the following method to use the case:

- to propose to the students an individual lecture of the teaching case;
- to stimulate them to discuss in small groups about the described situation in order to analyze other hypothesis to solve the presented situation;
- to ask each group to present, orally, to the other classmates their analysis for the case, as well as presenting other possibilities for the problem described in the case;
- to finish the work with a synthesis about the opinions manifested by the students and think over the considered possibilities.

It is suggested that the designated time for reading the case does not exceed 15 minutes. Afterwards, discussion in groups should last for a period of 15 to 20 minutes. At this time, it is suggested that the professor provides to the groups the questions described on the following topics.

Furthermore, each group should carry out a presentation of about 5 to 7 minutes. Obviously, the total time set for finalizing this step should vary according to the number of groups.

### **Suggested questions for discussing the case in class**

After the reading of the case, the professor may start the discussion with the students about the facts described in the text by exploring questions such as follows:

How do you think are the functions of the logistics chain at Trombini Packages Ltd before and after implementing the DC's?

The data analyzed by the manager to implement the DC consist, basically, on discovering potential customers to use this service and on the cost planning related to the implementation and the maintenance of the DC. What other data and risks could be analyzed? And why?

In your opinion, besides the facts already exposed in the text, what are the benefits Trombini Packages Ltd could reach by implementing the DC's?

From this case study, it is possible to identify a service being aggregated to a product sale process. Describe/comment examples of companies you know that have had similar initiatives.

### **Alternatives to analyze the case**

#### ***Innovation of logistics systems innovation***

The logistical chain is composed of a complex system that starts with the suppliers' raw material, that goes thru the production line and goes up to the final (LAMBERT; COOPER; PAGH, 1998). This system may be divided into three macro-processes that form the key activities of a logistics chain (STOCK; LAMBERT, 2000). The first one is related to the supply logistics that consists in a whole negotiation process with suppliers and input acquisition. The second logistics macro-process is related to the production, which consists in the necessary process to convert raw material into finished products. The distribution logistics, finally, involves the whole physical distribution of this finished product, acting in a company-customer-consumer relationship.

Usually, companies internally perceive logistics systems as sources of costs. The Management duty, in this case, is to try to reach a smaller amount of possible costs to aggregate customer's value and get competitive advantage (TAYLOR, 2003). When these three objectives

are conciliated, it generates highly efficient systems with a great possibility of success. However, in most cases these options may be conflictive.

Distribution channels may be characterized as a set of interdependent organizations involved in the process of getting a product or a service available for consuming and use (ROSS, 1995). From another point of view, it may be seen as the path followed by a product from its conception up to its final delivery to the consumer; the transfer of possession among several companies; or a coalition of companies with the purpose of exchange (DENT, 2008) More important, then, is its function, since the distribution channel serves diverse market functions in order to satisfy the demand on products and services.

The decisions on marketing channels of the company involve long term commitment with other companies, which generates a need for constant partnership (KOTLER, 1976). A distribution system is a very important external resource with a specific market to serve.

### ***Marketing and customer's fidelization***

Marketing is an activity that aims at satisfying customers' needs and desires at the same time that they try to reach their own planned results. It is centered on customers' needs that presupposes coordinated actions inside the organization and considers profit as a result from consumer's satisfaction (KOTLER, 1976). Marketing aims at producing what customers want in such a way it can get profit. The main attributions of marketing are to identify, anticipate, and satisfy customers' expectations, by innovating, differentiating and getting quality.

In companies with innovative vision, the understanding of the marketing function results in positioning the customer-user in a distinctive place, in the middle of the company dynamics,

from where every functions, including marketing, are organized and become real, in permanent interaction.

The more competitive the market becomes, the more important is consumer's satisfaction. Companies may attract consumers that are not part of their market objectives, what results in dissatisfaction, despite efforts. The company must decide if it is worthy to invest effort with this type of consumer. The dissatisfaction cases of consumers must be treated in particular, once every case has proper characteristics.

### **Data collection**

As data sources, this research used interviews with the Superintendent Director of the company, besides interviewing other people involved in the management process as well. The research has also carried out visits to the company's facilities to practically identify how the proposed concepts in this paper would work out.

### **Notes**

The name of the customers of Trombini Packages Ltd is fictional in order to preserve their anonymity.

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