Proposal for Implementation of Post-Consumer Reverse Logistics in a Cosmetics Company in the Manaus Free Trade Area

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Abstract

The objective of this study was to propose the implementation of post-consumer reverse logistics in a cosmetics company located in Manaus - AM (ZFM) Free Trade Area with the objective of optimizing the production processes in a sustainable way from the reuse of packaging waste, which will become raw materials in other production processes (feedback. It was adopted as a study method two types of research: bibliographic research and observational study. The Reuse Program will aim to promote the optimization of the production process of consciously and sustainably so that reverse logistics operation boosts the company's business.Investing in improving the logistics process of companies is critical to optimizing their processes and meeting the growing demand for quality services and products. B&B Cosmetics Company sought to invest in a re-logistics program. It is a post-consumer version to enhance its market actions and ensure competitive advantages.

Keywords: Reverse logistic; Cosmetics; Manaus Free Trade Area - AM;

1. Introduction

Society faces a major challenge in successfully moving socially responsible to an organization that is consistent with the natural system that supports it. This represents a significant challenge to the traditional way of thinking about social activities and the productive system. In this way, it faces the need to properly manage the entire product life cycle, seeking to improve both environmental, social and economic

performance.

For companies to remain competitive in the market, in addition to being in constant search for technological innovations, companies must also aim to contribute to sustainability in the end, the raw material is extracted from the natural resources that the environment generates, and due to population growth. This accelerated process generates a great need to take advantage of new technologies in order to meet the population need that consequently the extraction of raw material ends up being extracted in an unbalanced and unconscious way contributing to the imbalance of the ecosystem.

In the business sector there is a law that requires companies to manage their solid waste in an integrated manner and failure to comply with this law will be subject to the punishment of the Environmental Crimes Law - Law 9.605 / 98 (1998). These laws require companies to change their productive behavior towards a more conscious and sustainable production process. Companies' pursuit of sustainability is not only based on maintaining a positive image for their competitors, investors, customers and consumers, but on contributing to sustainability for the balance of the ecosystem as a means of preserving natural resources.

Incorrect disposal of waste generates numerous environmental damages that harm society: such as air pollution due to the emission of harmful gases; disposal of common waste in rain galleries causing flooding and flooding; improper waste disposal in environmental preservation areas that contaminate soil and groundwater; contributing in such a way to disease transmission, among others.

The objective of this study was to propose the implementation of post-consumer reverse logistics in a cosmetics company located in Manaus Free Trade Area (ZFM) in order to optimize the production processes in a sustainable way from the reuse of waste from packaging, which will become raw materials in other production processes (feedback). Therefore, the proposal will seek to: help improve business performance, increase material flows (reuse) and optimize the distribution center of the company's logistics chain.

2. Theoretical References

2.1 Reverse Logistics

According to [1], in the 70's, logistics began to occupy a space with the theme of politics and as a strategic alternative for business success. From that moment on, logistics followed a maturing path of understanding production with the flow integrated by the supply chain link and customer oriented.

This process of awareness, still underway, is closely in tune with the business context, characterized, since the 1970s, by changes in the world scenario, by managerial and technological innovations of social behavior [2].

Although the emphasis in this period was on direct logistics, the term “reverse logistics” was already present in the literature, especially in goods reprocessing studies. However, the maturity of organizations to deal strategically with logistics issues has not been exhausted at this stage of understanding. Today, successful business policies and strategic alternatives face a new challenge: reverse logistics as a way of adding value to business and society [3].

The path that has enshrined the importance of logistics for business performance is now undergoing another stage of reflection, in which reverse logistics is included in the effective renewal of organizational strategies

[1]. Amid a scenario focused on customer satisfaction with the objective of developing a management policy directed to the reuse of products based on sustainability, then came the reverse logistics which can be understood as a process that complements the traditional logistics, having as It is based on a differentiation in its process: it complements the product action cycle by bringing back the product used for consumption (total chain chaining).

Law No. 12,305 / 2010 defines reverse logistics: An instrument for economic and social development characterized by a set of actions, procedures and means to enable the collection and return of solid waste to the business sector, for reuse, in its cycle or in other productive cycles, or other environmentally appropriate final destination.

[4] notes that reverse logistics has a business point of view, whose chain of action is related to the planning, operation, control and flow of logistics information linked to the after-sales or after-use system of the product, adding a series of integrated tools to optimize the business of the company (Figure 1).

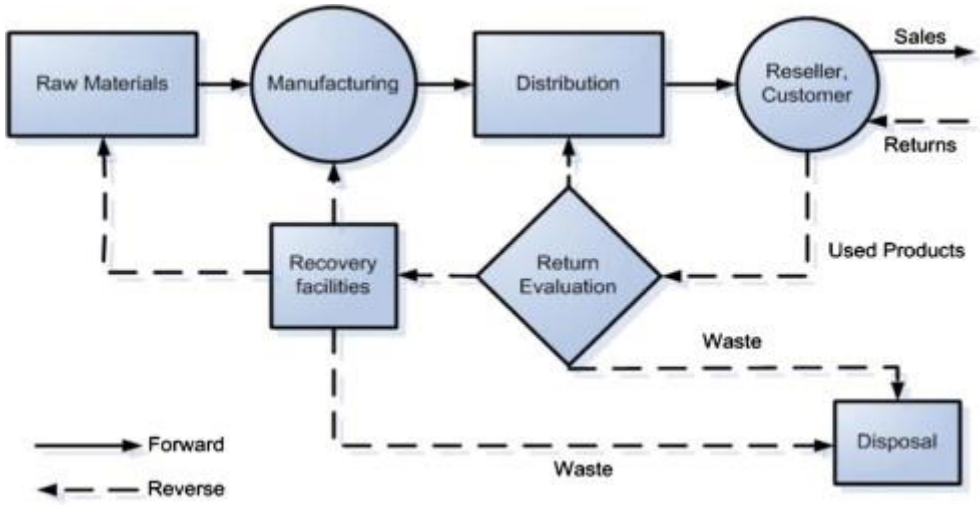

Figure 1: Reverse logistics;
Source: [5]

This reflection has enormous scope and should embark public and private organizations, all sectors of the economy and society. These are big and heavy demands on executives' behavior, because it's not just looking at reverse logistics as simply extending the scope of the logistics process [3].

2.2 Business Logistics: Direct and Reverse

Direct business logistics, considered as the focal point of the production chain, works closely with the supply chain management model. He focuses his study mainly on examining the flows of the direct supply chain [2].

Direct logistics is of fundamental importance in the process of collecting information about the process, based on the initiation of the process with the raw material until the final phase of production in order to serve the final consumer. This chain of actions represents, as noted [3] a logical operation of the relationship of the business-consumer process.

To achieve its business objective, direct business logistics has relied on business techniques and

philosophies that aim to increase the speed of response and customer service through the speed of logistics flow and the reduction of total operating costs, such as total quality, Just in time and logistics information technology [3].

It is noted that in direct logistics there is a unidirectionality and a linearity in the process, since the logical chain goes through the production, storage and distribution stages. However, organizations are optimizing their planning to increasingly serve the end consumer in the shortest possible time.

Both direct and reverse logistics, in their classic definition, are phases of business logistics. Thus, they tend to receive a strictly operational and economic focus, to the detriment of the environmental and social points of view. Although some environmental aspects are addressed as economic and / or operational factors of reverse logistics [6].

Pereira [6] notes that reverse flow process development has the ultimate goal of meeting customer demand needs. This factor of adding social and environmental responsibility to providing a more effective service to the end consumer is a primary characteristic of reverse logistics: reuse with improved distribution channels and information in the process.

2.3 Post-Consumer Reverse Logistics

Reverse post-consumer logistics is based on planning, control and final disposal with a focus on post-consumer goods, ie goods in final consumption phase [7]. The analysis of consumer goods in post-consumer reverse logistics takes into account the useful life of a given product, based on its final use characteristics, depending on the destination (recycling or reuse) in which the post-philosophy philosophy proposes. consumption and turns it into another consumer good.

[8] notes that post-consumer reverse logistics operates on a product return system to the production center in order to harness the resources and potential that it can still offer for an aftermarket stage. [6] analyzes that after-consumer goods, as well as after-sales goods, are elements that dissociate in some aspects: after-sales are products that have little use and demand of greater strategy for a new process of sale; Post-consumer products have a higher potential, as they have already been used and generally have a higher potential demand.

The post-consumer reverse logistics process develops through a logistic trigger that originates in the traditional supply and production process and returns in a reverse flow from the collection and reuse of these materials [7]. This chain consists of a series of activities that together articulate strategic actions to perform the reprocessing of the material used (Figure 2):

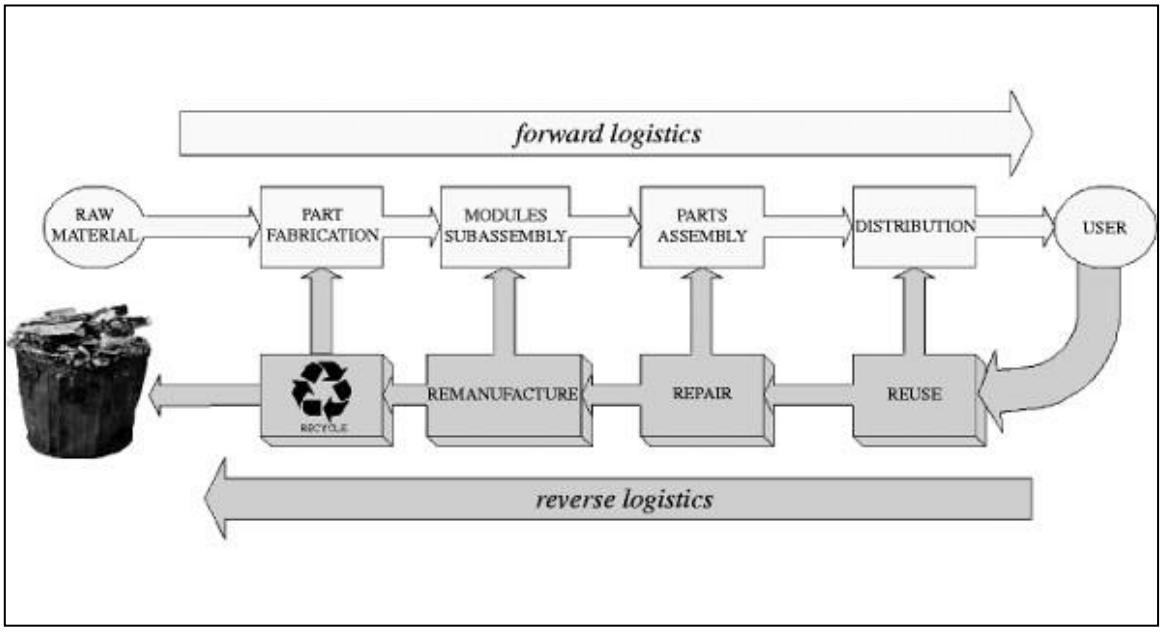

Figure: 2 Reverse logistics after consumption;
Phone: Adapted from [9]

[10] analyze that post-consumer reverse logistics is of fundamental importance to the process of organizational innovation. It generates a competitive factor from the proposal of ventures and actions arising from this type of logistics niche, which provides - in the long run - a more sustainable modus operandi with a focus on social and environmental responsibility.
[11] analyzes that post-consumer reverse logistics is part of the corporate logistics structure, whose key role is centered on the operationalization, management and decision-making of material goods after their sale and consumption process. The post-consumption phase, according to [10], is a step that goes beyond the organization's conventional production and demand process to strategic planning that involves systematization in the post-production chain.

2.4 Distribution Chains in Post-Consumer Reverse Logistics

Production life cycles are processes that have their origins in the manufacture of the product until the final customer service and delivery stage. [4] analyzes that the process of the production flow in a traditional logistics chain follows according to the production (origin) of the goods, passing through the stage of packaging, preparation, distribution and delivery. Reverse flow, on the other hand, is a process contrary to the traditional one, since it needs to work with a system of revaluation of goods through strategies of recycling, reuse and market replacement.
[11] analyzes that the main distribution channels in the post-consumer reverse logistics process are recycling and the reverse manufacturing channel. Recycling is a very important process for extracting consumer goods that have market value, that is, the product that has value after being consumed, which has market potential. The reverse channel of manufacture has the role of improving the recycled material, developing methods of reusing the physical state, replacing components and complementing product characteristics.

[10] state that in Brazil there is already a strong business branch in the process of recycling policies for post-consumer reverse logistics. They mention that national and multinational companies are already developing actions aimed at optimizing their distribution channels throughout the country, especially in the recycling phase and in the preparation of the product in the manufacturing phase, in order to cheapen the process and leverage the reuse of the product. production.

2.5 Benchmarking

According to [12] Benchmarking is a continuous and systematic process whose main purpose is linked to evaluations of services and products of organizations, recognized as relevant to a certain market niche, in order to serve as a parameter for improvement.

[13] note that Benchmarking within the industrial and corporate branch serves as a tool for parameterization of results and objectives achieved by the company, ie, it supports the evaluation of performance and continuous improvement methods to optimize services and products.

To apply Benchmarking as a market strategy it is necessary to know its types. [14] points out the main typologies as: Internal Benchmarking, Competitive Benchmarking and Functional Benchmarking. For the process of identifying competitor processes, services and products, competitive benchmarking has better functionality.

3. Tools and Methods

The study used Benchmarking as a study application tool. Its objective was to analyze successful cases in the implementation of reverse logistics models and to adjust their strengths for the study.

Based on the analysis method, the Reuse Program - Post-Consumption Reverse Logistics application program - was presented as a research product for the optimization of the company's reverse logistics process.

4. Application of Study

4.1 Characterization of The Company

The company B&B Cosmetics is located in the city of Manaus-AM, in the Industrial Pole of Manaus Free Zone, and has been engaged in cosmetics in the Amazon region for over 10 years. Currently it has more than 23 (twenty three) direct and indirect customers from sales of its products, both to the local market and also outside the state of Amazonas.

However, in recent years, the company realized that it had been losing market due to not having within its strategic planning structure an action structure focused on Reverse Logistics. All outlets and distributions of its products are operated through Direct Logistics, without any planning focused on reuse and post-consumption.

After noting, by hiring a consulting firm specializing in business logistics, that the company was losing market share by failing to pursue a post-consumer reverse logistics strategy, the Operations and Logistics Board began the first studies on how to develop a strategic plan focused on the proposed reuse of its products.

4.2 Benchmarking Application

The application of this study was aligned in 3 (three) steps:

I. Benchmarking application;

The first step in the application of the study was the use of benchmarking as a tool to identify competitive practices to capture the positive points to be applied in the company's process. For this study, functional benchmarking and competitive benchmarking were applied, which was applied by consulting the successful cases within the reverse logistics sector in companies in the cosmetics and beautification segment.

After this thorough analysis were identified two (02) companies that had a successful case in the implementation of a business policy in reverse logistics: Natura and Boticário.

Boticário implemented its reverse logistics strategy from the implementation of the Packaging Recycling Program (PRE) with the proposal to apply the post-consumer reverse logistics of its beauty products. Since 2007.

Natura has been developing strategic planning actions directed to its post-consumer reverse logistics program, being considered one of the most efficient in the cosmetics business in Brazil and Latin America.

After the analysis process with Benchmarking, a survey of the optimization aspects of the logistics process of the companies that can be applied to the study was conducted.

II. Survey of aspects of logistics process optimization;

Based on this analysis, it was observed:

a) The structure of the Apothecary PRE

b) Natura's strategic management

c) The process vertical storage system with cooperative association

The proposal intends to use the same structure of the Boticário PRE as a form of reverse flow organization, prioritizing the waste treatment in a decentralized and cooperative manner, which tends to generate greater dynamism in the logistic chain process.

III. Reuse Program Development

The proposal for the elaboration of the Reuse Program arose from the possibility of improving the reverse flow logistics aspects for the company through the logistics and distribution systems observed at Natura and Boticário. The choice of the name "Reuse" was due to the appeal of green marketing and the ease of communication on social media. In addition, the choice to implement it as a Program was made in order to make it a perennial activity in the company with long term execution.

4.3 Lifting and Aspects

Regarding the strategy management process, we opted to incorporate the company's supply chain management method in accordance with Natura's logistics policy. The choice is due to the fact that Natura centralizes its logistics process according to demand, developing a Just in Time methodology based on product demand. B&B Cosmetics will aim to develop its strategic actions in the same way through the Reuse Program: combining storage and distribution by improving inventory management.

For the elaboration of the decision making process expansion structure, it was decided to use the storage verticalization method through the agreements with associations of local waste collection cooperatives.

This agreement will be based on the elaboration of collection and profit sharing goals with the preparation and sale of reused products.

Social accountability through strategic sustainability actions will promote the expansion of the company's activities through the reuse of product packaging waste. Closing according to the cooperatives - stakeholders - will enable the development of reuse focused on expanding niche markets.

5. Results and Discussions

The Reuse Program has been aligned on three parameters for improving the process of implementing the B&B Cosmetics reverse logistics system:

I. Reverse Flow Thread Optimization

II. Expansion of Company Business Niche

III. Implementation of social accountability policy

The Reuse Program will aim to promote the optimization of the company's production process in a conscious and sustainable manner, so that the reverse logistics operation enhances the company's business. The program structure will proceed with the following phases:

1. Product life cycle mapping;
2. Monitoring of the reverse chain flow logistic chain;
3. Vertical screening in inventory management;
4. Closure of cooperation agreements with local cooperatives;
5. Structuring the social responsibility and green marketing action system

The Reuse Program implementation process is scheduled for 90 days. The proposal will be presented in the company through the offer of workshops and training and qualification of employees and managers.

6. Final Considerations

Investing to improve the logistics process of companies is fundamental to optimize their processes and meet the growing demand for quality products and services. Today, companies are increasingly aligned with investing in stock innovation in their logistics process with the purpose of being able to serve their customers quickly and effectively.

B&B Cosmetics Company sought to invest in a post-consumer reverse logistics program to enhance its market actions and ensure competitive advantages. After observing that several competing companies were opting for this market niche, the company found that the feedback method of their production process could lead to market expansion and brand enhancement through social responsibility.

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