Maestría en Gestión e Innovación Tecnológica

Title
Supply chain model for pymes that participate in the moder channel

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Modelo de cadena de suministro para pymes que participan en el canal moderno

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1. Introduction

The market competitiveness requires companies a high interaction with its outside and inside in areas such as; management, sales, production, marketing, logistics, among others. In this sense, the supply chain is a key area to achieve the objectives of the organization, directly or indirectly, involving customer satisfaction, synchronizing the supply chain organization with customers and suppliers. Provides information to the organization for decision making, ensures that the product is available at the time, place and the amount needed, without losing sight of efficiency. The target of the supply chain, is to provide a competitive advantage to the organization.

The classic cycle supply chain shown in Figure 1.

Figure 1. Cycle traditional supply chain begins when the customer takes a product at the point of sale and ends when the same product replenished. Source: Own Author

2. Aim

Design a model of supply chain management for pymes participating in the modern trade, Figure 2, by addressing the main elements of demand planning, a mapping of critical processes in the supply chain and propose a system of performance indicators. Aligning each of the above elements with customers and suppliers to improve organizational performance.

3. Methodology

The present investigation of mixed type, aims to design a supply chain model for pymes participating in the modern trade. First a bibliographic search, also an elaboration of mental maps of supply chain. In demand planning, a weighted matrix is proposed with the main factors to consider. A map of the key processes in the supply chain is developed, identifying critical activities in this area of the organization, proposing a model of performance indicators in key processes.
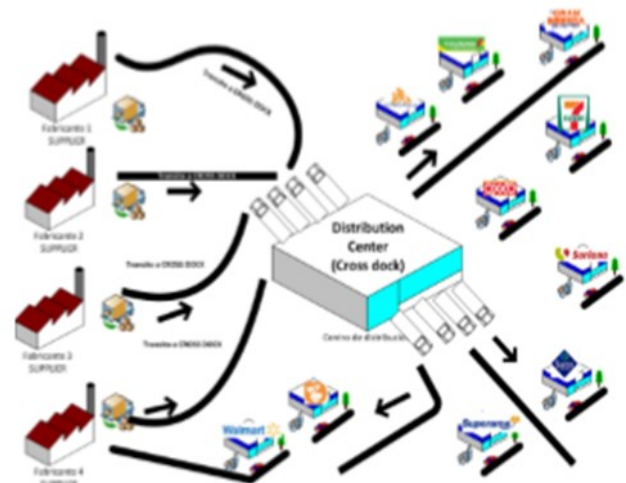

Figure 2. The supply chain of modern trade. This trade groups together retailers stores, convenience and price clubs, associated with ANTAD (Asociación nacional de tiendas de autoservicio). Source: own author
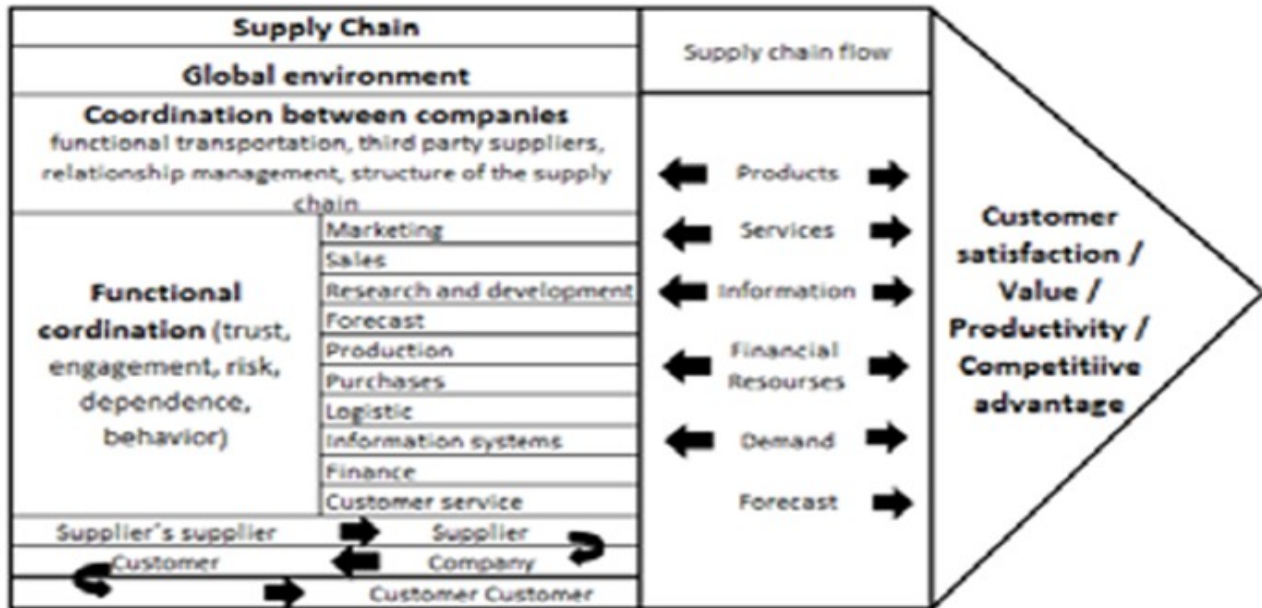
Figure 3. The model of management of the supply chain. This model coordinates the flow of product through functions and across companies, to achieve a competitive advantage. Sourse Ballou, R. H. (2004). Administración de la cadena de suministros. México: Pearson educación

4. Results

The management of the supply chain, encompasses all activities related with the flow and transformation of goods from raw material stage (extraction) to the end consumers and also information flows related, view Figure 3. The materials and information flow in upward and downward in the supply chain.(Ballou, 2004)

The demand planning aims to predict the need for future products or services on the market by a forecast, anticipating the resources of the organization. It seeks to minimize the error of the forecast, through all the elements involved with demand. The demand planning is the foundation of supply chain. View figure 4
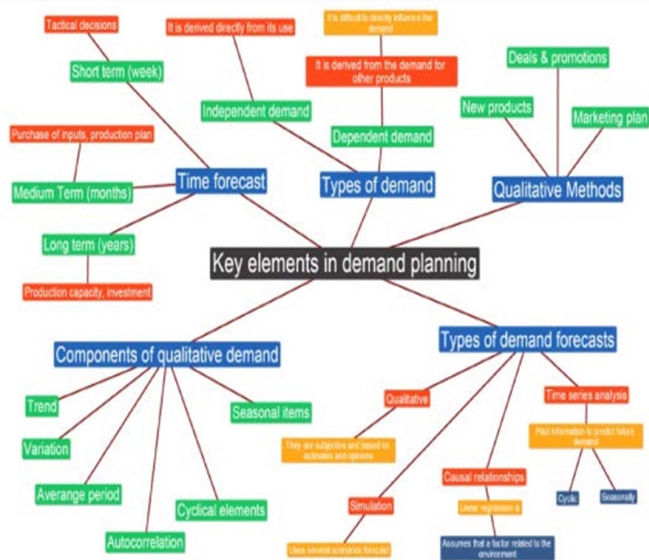

Figura Components of demand planning, Own: Jacobs, R. B. (2011). Administración de operaciones. México: Mc Graw Hill.

The demand forecast has two sources of information; qualitative analysis provides forecast information about new or technological products and a new marketing plan. Quantitative analysis of historical data to determine projections based on trends, seasonality and time series models. View figure 5.
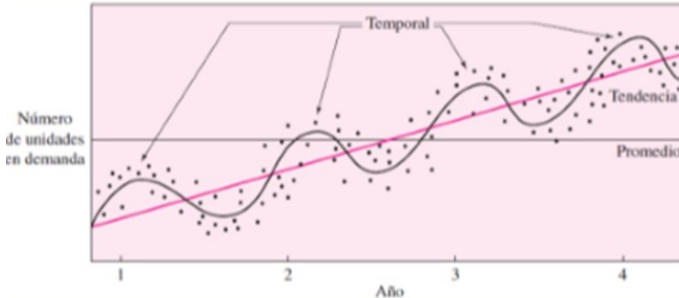

Figura 5 Principales elementos de la demanda cuantitaiva: Promedio, temporalidad, tendencia. Fuente: Chase, F. R. (2011). Operations and Supply Chain Management. México DF: McGraw-Hill/Interamericana editores S.A. DE C.V.

The main elements that directly influence the demand forecast. View figure 6:

1. Quantitative data are the most important and safest way predict demand, it requires at least 3 equal periods of history to which you want to project.

2. Forecast marketing, the total volume likely to be purchased by a consumer group in a specific marketing environment.

3. Collaborative Forecasting (CPFR) is a tool that involves business partners collaboratively, both partners participating with point of sale information.

4. Causal forecast assumes that demand is correlated with factors in the environment

5. Forecast simulation, this method imitate client choices.

Figura 6 Tipos de pronósticos ponderados por su impacto el la efectivaidad de la planeación de la demanda. Fuente: autoria propia.

5. Conclusion

The demand planning is the basis of the supply chain, top management provides the direction to be taken by the company in terms of; evaluation of installed capacity, financial, purchasing plan, availability of labor, market participation. Logistics operation provides a production plan and distribution, also maximizes the efficient use of resources. In weighing the factors that influence the demand planning, the result is that statistical analysis is the most important factor to consider, followed by a marketing plan and thirdly collaborative forecasting (CPFR) with customers and suppliers.

References

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