

## Procurement strategy in organizations for profit maximization

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### ABSTRACT

Nowadays, companies are increasingly concerned about staying active in the market, due to the great demand from customers for products and services at the most affordable price and with the highest possible quality. In addition to other challenges such as competition, technological innovations, economic crises, cost reduction, difficulties in finding suppliers that faithfully meet the expectations sought and hiring qualified professionals to carry out operational and strategic activities.

**Keywords:** Strategy, Purchasing, Profit maximization.

### INTRODUCTION

Nowadays, there is an increasing concern of companies to remain active in the market, due to the great demand of customers for products and services with the most affordable price and highest possible quality. In addition to other challenges such as competition, technological innovations, economic crises, cost reduction, difficulties in finding suppliers that faithfully meet the expectations sought and hiring qualified professionals to perform operational and strategic activities.

Although practically everyone has the habit of buying, according to daily needs, it is essential to conceptualize the activity, which means looking for and arranging for the delivery of materials, in the specified quality and within the necessary time, at a fair price, for the operation, maintenance or expansion of the company (VIANA, 2002, p. 172).

This work will provide the reader with an understanding of the importance of the purchasing sector for increasing profits, reducing costs, as well as for the organization of the purchasing process.

The article will present its methodology, showing the method that served for the elaboration of the work, theoretical framework addressing the definition of purchasing, the activities of its process, functions, objectives and importance, the centralization of purchases, showing its advantages and disadvantages for this management model, the importance of the relationship with suppliers, it will also talk about the techniques and importance of negotiations, of the increase in the profitability margin and the Economic Purchase Lot (LEC), and finally present its conclusions and final considerations.

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## **OBJECTIVE**

This work aims to present the importance of the purchasing sector within organizations for the maximization of profits with the increase of the profitability margin, in addition to providing the reader with the formation of an opinion on the subject through a macro view of the purchasing sector, showing its processes, techniques, tools, importance, benefits, advantages and disadvantages.

## **METHODOLOGY**

According to Vergara (2004, p.46), research is classified according to ends and means. The present work aims to "break" the retrograde thinking that the purchasing sector of organizations is a department in which only expenses are generated and not a sector that can enable greater profit.

The work is characterized as a theoretical article, so for its development a bibliographic research was carried out of some works by authors who master the subject in question, presenting their definitions, characteristics, importance, advantages, disadvantages, tools and techniques, which if added together can enable greater organizational growth, in addition to maximizing the profit margin and making the company competitive in the market in which it is inserted.

## **DEVELOPMENT**

Next, a theoretical foundation is presented regarding Purchasing, in order to establish the view of the literature so that, later, the analyses aimed at being achieved through the article can be carried out.

## **SHOPPING**

According to Viana (2002, p. 42), the purpose of the purchasing activity is to meet the needs of the company through the acquisition of materials and/or services, emanating from the requests of the users, aiming to search the market for the best commercial and technical conditions.

The purchasing activity is an essential part of the materials and supplies department of organizations, whose purpose is to meet the needs of materials or services, plan them quantitatively and satisfy them at the right time with the correct quantities, verify that you have effectively received what was purchased, among others. Purchasing is, therefore, an operation in the area of materials, which is very important among those that make up the supply process (DIAS, 1993.p 259).

The company's purchasing department should not only be concerned with the control and supply of inventories, but should always seek improvements for it, emphasizing the final result. According to the authors Baily et al (2000, p.31), "a well-known definition of procurement objectives is to buy the right amount of material, at the right time, in the right quantity, from the right source, at the right price".



## PROCUREMENT ACTIVITIES AND PROCESS

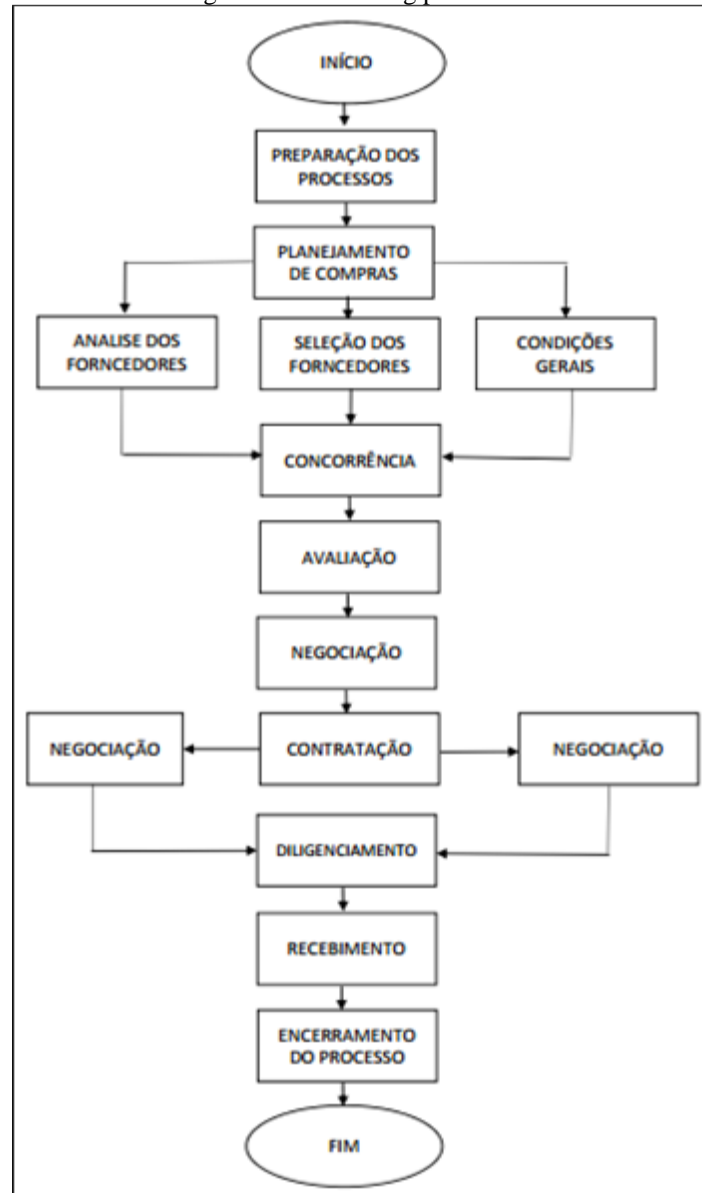
According to Ballou (2006, p. 356), procurement involves the acquisition of raw materials, supplies, and components for the organization as a whole. Activities associated with them include:

- Select and qualify suppliers;
- Evaluate supplier performance;
- Negotiate contract;
- Compare price, quality and service;
- Research goods and services;
- Schedule purchases;
- Establish the terms of sales;
- Evaluate the amount received;
- Measure the quality received, when it is not included among the responsibilities of quality control;
- Predict changes in prices, services, and sometimes demand;
- Specify the ways that the products should be received.

As in other sectors of organizations, it is extremely important that the purchasing sector has a defined process, and that it is understood by all parties, that is, that it is understood by the entire hierarchy of the purchasing sector. In addition to knowing the process, those who execute it must also respect all the phases during its execution.

According to Viana (2002, p. 177), procurement procedures are embodied in several stages, as shown in figure 1.

Figure 1 – Purchasing procedures.



Source: Viana (2002, p. 178) - Adapted by the authors.

A well-defined purchasing flow facilitates the execution of the purchasing process, in addition to facilitating management control, facilitating the identification of problems that may occur during the process. With the flaws understood, changes can be made to the process for its improvement.

## OBJECTIVES AND FUNCTIONS OF THE PROCUREMENT SECTOR

According to Arnold (1999, p.209), this function is responsible for establishing the flow of materials in the firm, for monitoring the supplier, and for speeding up delivery. Missed deadlines and deliveries can create serious concerns for both production and sales, but the procurement function can reduce the number of problems for both areas, as well as add profits.



Planning and control are two essential factors for good management, as the inventory sector is assigned control where its objective is not to leave material lacking or surplus, avoiding the immobilization of financial resources. Pozo (2007) presents a list of objectives for good inventory planning and control. They are:

- Keep inventory as low as possible to meet the needs sold;
- Identify obsolete and defective items in stock to eliminate them;
- Do not allow conditions of lack or excess of sales demand;
- Prevent loss, damage, misplacement or misuse;
- Maintain quantities in relation to requirements and records;
- Provide concrete bases for the elaboration of data for short, medium and long-term planning of inventory needs;
- Keep costs at the lowest possible levels, taking into account sales volumes, deadlines, resources and their effect on the cost of selling the product.

It is worth mentioning that the objective of the purchasing function is not only to buy cheap, because the issue of "price" is not only the important target, and there are also other means that must be sought to improve the business and to keep the focus on the final result. According to Dias and Costa (2003) "quality and delivery are more important than price. In addition to the costs to be analyzed, it is necessary to analyze the quality of the product and the supply."

## IMPORTANCE OF THE PROCUREMENT SECTOR

Acquisition management – the well-known purchase management – assumes a truly strategic role in today's business due to the volume of resources, mainly financial, involved, leaving behind the prejudiced view that it was a bureaucratic and repetitive activity, a center of expenditure and not a center of profits (MORAES, 2005).

According to Ballou (2006, p. 357), the purchasing sector occupies an important position in most organizations, since parts, components and purchased supplies generally represent 40 to 60% of the final value of sales of any product. This means that relatively small cost reductions achieved in the material procurement process can have a far greater impact on profits than similar improvements in other areas of cost and sales in the organization. This is called the leverage principle.

The purchasing sector is of utmost importance within the organization. The purchase of raw materials is directly linked to the production sector, which through the purchased input can produce the good or service which will be delivered to the customer and consequently generate profit. The purchase



must be executed correctly, respecting the established quality standards, with a fair price that allows greater profitability for the company.

## **CENTRALIZATION OF PURCHASES**

The centralization of purchases usually occurs in small companies, where managers or owners decide to centralize not only decisions about purchases, but all decision-making processes that directly or indirectly involve the company's capital. That doesn't mean that large and medium-sized companies don't also opt for this type of policy.

Cunha (1991) and Caetano (1983) apud Almeida (2000, p.21) mention that, in general, the movement towards centralization "has as its objective a better general functionality and a more economical exploitation, due to a greater economy of human and material resources and a better management due to the possibilities of control that it offers". In retail chains, as highlighted by Parente (2000), the manager must decide on the degree of centralization in purchasing decisions. This purchasing decision can be developed in a centralized or decentralized manner, as discussed in this article in the parts to come.

## **ADVANTAGES AND DISADVANTAGES OF CENTRALIZATION OF PURCHASING**

Centralizing the procurement process is an alternative that can provide some advantages regarding the process. As mentioned by Reis and Brito (2010), the advantages depend on how the executive will deal with the purchasing power in his company. That is, it depends on your ability to consolidate requirements, develop sources, rationalize inventories, simplify procedures, negotiate with suppliers, in order to reduce unnecessary costs and promote the effective flow of information within the organization. This alternative will make it possible to understand the company's requirements.

The advantages of this procedure are numerous. They avoid duplication and the possibility of buyers from the same agency competing with each other in terms of purchases and materials under a responsibility, taking into account the situation in which two or more buyers may acquire the same material or input for different products, from one or more sources of supply with different prices and conditions (GONÇALVES, 2010, p.250).

As well as advantages, the process of centralizing purchases also has disadvantages, and the very concept of centralization highlights its inherent problems. According to Mintzberg (1995, p.202), a centralized structure exists "when all the power for decision-making is in one place in the organization, ultimately in the hands of one person".

Chart 1 presents a macro view of the advantages and disadvantages of centralizing purchasing:



Table 1 - Advantages and disadvantages of centralizing purchasing.

CENTRALIZAÇÃO DE COMPRAS	
VANTAGENS	DESvantagens
As decisões são tomadas por administradores que possuem visão global da empresa.	As decisões são tomadas na cúpula que está distanciada dos fatos e das circunstâncias.
Os tomadores de decisão no topo são mais bem treinados e preparados do que os que estão nos níveis mais baixos.	Os tomadores de decisão no topo tem pouco contato com as pessoas e situações envolvidas.
As decisões são mais consistentes com objetivos mais globais.	As linhas de comunicação ao longo da cadeia escalar provocam demora e maior custo operacional.
A centralização elimina esforços duplicados de vários tomadores de decisão e reduz custos operacionais.	As decisões passam pela cadeia escalar, envolvendo pessoas intermediárias e possibilitando distorções e erros pessoais no processo de comunicação da decisão.

Source: Chiavenato (2011, p. 162) - Adapted by the authors.

There are advantages and disadvantages to centralizing purchases, it is up to the management to determine whether or not it is centralized to better suit the company's profile and its purchasing process.

## SUPPLIERS

The buyer has the task of negotiating with suppliers, so it is necessary to have skills such as good communication, negotiation techniques and others so that a good purchase can be made.

According to Arnold (1999, p.211), identifying and selecting suppliers are important responsibilities of the purchasing department. For routine items or those that have never been purchased before, a list of approved suppliers should be maintained. If the item has not been purchased before or if there is no acceptable supplier on file, a search should be done. If the item is of small value or for standard items, a supplier can probably be found in a catalog, a trade journal, or a phone book.

The purchasing area needs information about regular and potential suppliers, which must be well organized both in documents and computer files. The organization on computers must be carried out in such a way as to facilitate queries and updates, hence the increasingly frequent use of related databases.

Sometimes, it is desirable for the supplier to be close to the buyer, or at least to maintain a local inventory. A close location helps reduce delivery times and means that missing products can be delivered immediately (ARNOLD, 1999, p.211).



## **NEGOTIATION**

Buyers are responsible for the expenses of the industries, they are the ones who close the supplier agreements and negotiate the best prices. According to Porter (1986, p.41), the power of the buyer is directly linked to his situation in the market and the importance of his purchases compared to his business.

Every negotiation for the purchase and sale of a product or service is based on the negotiation of price and, of course, discounts. Apart from discounts of illicit characteristics, discounts can be obtained through quantity negotiation, legitimate, fair and profitable payment terms (DIAS, 2009, p.268).

Arnold (2009) notes that through negotiation, the buyer and seller try to resolve the purchasing conditions for the benefit of both parties. Still in the author's definition, skill and well-structured planning are necessary for the success of the negotiation.

Based on the information above, a structured and efficient planning requires some information on the part of the buyer, so that he enters the process with greater advantage and power in the negotiation, where the following can be highlighted:

- Supplier control and registration;
- Control and registration of purchases;
- Consumption control and registration;
- Price control and registration;
- Specification control and registration.

One of the ways to facilitate the purchasing process and to execute it according to the items mentioned in the previous topics is the use of an information system, with information on previous purchases and space for registration and updating of new information for future purchases.

## **PURCHASES AND PROFIT LEVERAGE**

According to Arnold (1999, p.207), on average, companies spend 50% of their income from sales on the purchase of raw materials, components and supplies. This confers the purchasing function huge potential to increase profits. In a simple example, suppose a company spends 50% of its revenue on purchased goods and displays a net profit of 10% before taxes. For every \$100 of sales, the company receives \$10 in profit and spends \$50 on purchases. Other expenses are \$40. For this example, suppose that all costs range from according to sales. These values are shown in chart 2 in the form of a simplified income statement.





Table 2 - Simplified Income Statement A.

DECLARAÇÃO DE RENDA		
VENDAS		\$ 100,00
CUSTO DAS MERCADORIAS VENDIDAS		
COMPRAS	\$ 50,00	
OUTRAS DESPESAS	\$ 40,00	\$ 90,00
LUCRO ANTES DA TAXAÇÃO		\$ 10,00

Source - Arnold (1999, p.208).

To increase profits by \$1, which means a 10% increase in profits, sales must increase to \$110. Shopping expenses and other expenses increase to \$55 and \$44, respectively. The following modified income statement shows these amounts in Table 3.

Table 3 - Simplified Income Statement B.

DECLARAÇÃO DE RENDA (AUMENTO DE VENDAS)		
VENDAS		\$ 110,00
CUSTO DAS MERCADORIAS VENDIDAS		
COMPRAS	\$ 55,00	
OUTRAS DESPESAS	\$ 44,00	\$ 99,00
LUCRO ANTES DA TAXAÇÃO		\$ 11,00

Source Arnold (1999, p.208).

However, if the company could reduce the cost of purchases by \$50 to \$49, which is a 2% reduction, it would have the same 10% gain in profits. In this particular example, Table 4 shows that a 2% reduction in the cost of purchases has the same impact on profits on sales, which is in the order of 10%.

Table 4 - Simplified Income Statement C.

DECLARAÇÃO DE RENDA (REDUÇÃO NO CUSTO DE COMPRAS)		
VENDAS		\$ 100,00
CUSTO DAS MERCADORIAS VENDIDAS		
COMPRAS	\$ 49,00	
OUTRAS DESPESAS	\$ 40,00	\$ 89,00
LUCRO ANTES DA TAXAÇÃO		\$ 11,00

Source Arnold (1999, p.208).

It is a strategic decision to reduce the cost in the procurement process to be able to provide a greater margin of profitability to bring advantages to the entire organization.



## **ABC CURVE**

According to Dias (2005), the ABC curve is an important instrument for the administrator, because it identifies the items that deserve attention and adequate treatment in terms of administration, and it is through the ordering of the items according to their relative importance that they are visualized in the ABC curve.

The ABC curve has been used by inventory management in the definition of purchase planning, establishing priorities. Once the priority has been verified through the sequence of items in the ABC classification, administrative management is applied according to the importance of the item.

Below is a detailed explanation of the ABC curve:

- Class A: of greater importance, value or quantity, corresponding to 20% of the total;
- Class B: with importance, quantity or intermediate value, corresponding to 30% of the total;
- Class C: of lesser importance, value or quantity, corresponding to 50% of the total.

Bertaglia (2009) points out that it is very important not to confuse the concept of classification by ABC curve with strategic items, as this would cause damage to the production flow

This is a statistical classification of materials, in which their importance is considered, based on the quantities used and their value. It can also be used to classify customers in relation to their purchase volumes or in relation to the profitability provided; classification of the company's products by the profitability provided, etc. (PINTO, 2002).

Thus, the importance of classifying the stock by the ABC curve arises. It is through it that it is possible to define the degree of importance of the items, thus admitting different levels of control based on the relative importance of the item.

## **XYZ CLASSIFICATION**

The XYZ classification makes it possible to assess the severity of the need for materials in the production process where they are used. In order for it to be analyzed, the following questions must initially be taken into account:

- Is the material essential in the process?
- Does the material belong to the production line?
- Does the material have a similar substitute?



Classification X: the items that fall into classification X are considered to be of lesser importance to the production process. Their lack does not cause stoppages or problems of any proportions and can be replaced by a similar one without difficulty;

Y-classification: the items that fall under the Y classification, are of medium or intermediate criticality, are between the critical items and those of low criticality. There are similar substitute materials, but their importance is crucial to the process.

Classification Z: the items that fall under the Z classification are those of extreme criticality, as they are essential for the process. There is no substitute material in a timely manner and its lack causes operational disruptions, such as downtime and risks.

### **ECONOMIC PURCHASE LOT (LEC)**

According to Gonçalves (2004), an economic lot is the ideal amount of material to be acquired in each stock replenishment operation, where the total acquisition cost, as well as the respective storage costs, are minimum for the period considered. This concept applies both in the relationship of supply by the manufacture to the inventory area, receiving the denomination of economic production lot, and to the relationship of stock replenishment by purchases in the market, being designated as economic lot of purchases.

### **CALCULATION OF THE ECONOMIC PURCHASE LOT**

To calculate the economic purchase lot, some assumptions are necessary. "The calculation of the economic purchase lot takes into account the trade-off between the cost of storage and the cost of orders. It also assumes that orders are delivered at once, at a single time" (GRAEML; PEINADO, 2007, p. 685). Thus, the following are the necessary assumptions for the calculation of the economic purchase lot:

- The order cost is the same for each order, regardless of the lot size;
- The unit cost of the material is the same regardless of the batch size;
- There is only a single material or product involved;
- The demand in the period is known; constant and linear over the period;
- The delivery or production lead time does not vary;
- Each order is fulfilled at once (delivery of the entire order in a single instant).

According to Graeml and Peinado (2007, p. 688) "the economic purchase lot can be calculated mathematically and corresponds to the quantity of material for which the storage cost is equal to the cost



with orders, i.e., the batch that represents the most economical option for the acquisition of the material in question, according to the formula below:

$$LEC \{1\} = \frac{\sqrt{2 \times D \times C_p}}{t \times C_u}$$

Where:

LEC = Economic Lot of purchase;

D = Demand for the period;

C<sub>p</sub> = Unit cost of the order;

T = Interest rate or opportunity cost;

C<sub>u</sub> = Unit cost of the material.

## **FINAL THOUGHTS**

In view of the literature review based on the researched authors, it is concluded that the purchasing function within organizations is essential in the materials management department, and has been gaining space and evidence in the context of organizations, not only as a high-cost sector, but also as a sector that can come, if well worked, to maximize the profitability margin of companies.

It can be seen that the purchasing area must have a defined process, have constant updating of information regarding past purchases, as it will serve as a basis for the buyer's next negotiations, in addition to also serving as a basis for the management of purchases in the planning process. It is very common nowadays to use an information system to facilitate the consultation and feeding of this information.

It is also shown that techniques of negotiation and planning of purchases, through purchase lots, allow a reduction in purchasing costs, both in terms of the purchasing process (administrative cost) and the cost of each raw material. This enables an increase in the profitability margin, since if the raw material is purchased at a lower price and acquisition cost, the company's profitability margin will be higher. It is worth mentioning that it is also of paramount importance to maintain the prices of the products purchased and that the supplier must also be respected so that it maintains the same quality in the products/services negotiated.

The trend is for this to intensify, especially nowadays when companies face challenges to remain competitive and in a position to face the maneuvers of the market and competitors in addition to obtaining profit and business success. It is worth emphasizing that the advantages provided by the purchasing sector



also generate optimization in other areas of the company with the reduction of delivery time, the possibility of serving a greater number of customers and an increase in revenue.



## REFERENCES

- Almeida, A. (2000). Compras Hospitalares Centralizadas: Repercussões práticas. In: VII Encontro Nacional de Economia da Saúde, Torre do Tombo, Lisboa. Associação Portuguesa de Economia da Saúde (APES).
- Arnold, J. R. T. (1999). Administração de materiais: uma introdução. São Paulo: Atlas.
- Arnold, J. R. T. (2009). Administração de Materiais. [Materials Management]. São Paulo: Atlas.
- Baily, P., et al. (2000). Compras: Princípios e Administração. [Purchasing: Principles and Management]. São Paulo: Atlas.
- Ballou, R. H. (2006). Gerenciamento da cadeia de suprimentos/logística empresarial. [Supply Chain Management/Business Logistics] (5th ed.). Porto Alegre: Bookman.
- Bertaglia, P. R. (2009). Logística e Gerenciamento da Cadeia de Abastecimento. [Logistics and Supply Chain Management] (2nd ed.). São Paulo: Saraiva.
- Chiavenato, I. (2011). Introdução a Teoria Geral da Administração. [Introduction to General Theory of Administration]. Rio de Janeiro: Elsevier.
- Dias, M. A. (1993). Administração de Materiais: uma abordagem logística. [Materials Management: A Logistic Approach] (4th ed.). São Paulo: Atlas.
- Dias, M., & Costa, R. F. (2003). Manual do comprador. [Buyer's Manual] (3rd ed.). São Paulo: Edicta.
- Dias, M. P. (2005). Administração de Materiais: Princípios, Conceitos e Gestão. [Materials Management: Principles, Concepts, and Management] (5th ed.). São Paulo: Atlas.
- Dias, M. P. (2009). Administração de materiais: Princípios, Conceitos e Gestão. [Materials Management: Principles, Concepts, and Management] (6th ed.). São Paulo: Atlas.
- Gonçalves, P. S. (2004). Administração de Materiais. [Materials Management]. Rio de Janeiro: Elsevier.
- Gonçalves, P. S. (2010). Administração de Materiais. [Materials Management] (3rd ed.). Rio de Janeiro: Elsevier.
- Graeml, A. R., & Peinado, J. (2007). Administração da Produção (Operações Industriais e de Serviços). [Production Management (Industrial and Service Operations)]. Curitiba: UnicenP.
- Mintzberg, H. (1995). Criando Organizações Eficazes: estruturas em cinco configurações. [Creating Effective Organizations: Structures in Five Configurations]. São Paulo: Atlas.
- Moraes, A. (2005). Gestão de Compras. [Procurement Management]. Apostila do curso de administração industrial. CEFDET. Rio de Janeiro.
- Parente, J. (2000). Varejo do Brasil: gestão e estratégias. [Retail in Brazil: Management and Strategies]. São Paulo: Atlas.



- Pinto, C. V. (2002). *Organização e Gestão da Manutenção*. [Organization and Maintenance Management] (2nd ed.). Lisboa: Edições Monitor.
- Porter, M. E. (1986). *Estratégia Competitiva: técnicas para análise de indústrias e da concorrência*. [Competitive Strategy: Techniques for Analyzing Industries and Competitors] (15th ed.). Rio de Janeiro: Campus.
- Pozo, H. (2007). *Administração de Recursos Materiais e Patrimoniais: Uma Abordagem Logística*. [Administration of Material and Patrimonial Resources: A Logistic Approach] (4th ed.). São Paulo: Atlas.
- Reis, M. R. A., & Brito, P. M. R. (n.d.). *Centralização de compras como fator estratégico*. [Centralization of Purchases as a Strategic Factor]. Retrieved from <[http://www.ietec.com.br/site/techoje/categoria/detalhe\\_atigo/529](http://www.ietec.com.br/site/techoje/categoria/detalhe_atigo/529)>.
- Vergara, S. C. (2004). *Projetos e relatórios de pesquisa em administração*. [Projects and Research Reports in Administration]. São Paulo: Atlas.
- Viana, J. J. (2002). *Administração de materiais: um enfoque prático*. [Materials Management: A Practical Approach]. São Paulo: Atlas.