

Applied Competitive Intelligence in Procurement Process

A Case Study

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Abstract

The application of Competitive Intelligence in purchasing departments has been gaining attention due to the complexity of the procurement process. The objective of this article is to assess the key factors that favors the implementation of Competitive Intelligence tools in purchasing and if its addition aggregates value to the organization.

Keywords: Competitive Intelligence, Purchasing, Knowledge Management.

INTRODUCTION

Competitive Intelligence (CI) is a system that integrates the knowledge of the entire company. It extends to structure, strategy and other organizational aspects of an enterprise. CI can be seen as a field that holds many concepts, covering a broader spectrum of company activities, such as data mining, information, analysis, information systems, integration, innovation, market intelligence, new process, new products, partnerships, process and strategic intelligence. (Zanasi, 1998).

Competitive Intelligence in Purchasing (CIP) can be considered a systematic harvest, analysis and interpretation of economical, environmental and political factors relevant to the procurement of products and services. (Braga, 2006). Additionally, the area of intelligence must investigate changes occurring on the supplier market environment that can pose as opportunities or threats to the current and future needs of the company.

Today CIP is a support area to purchasing departments. The main function of CIP is to create tools, information and knowledge to buyers. Problems generated by the lack of a CIP area are several such as 1) lack of relevant information about economic, environmental and political factors that influence purchasing of products and services. 2) lack of investigation of supplier's market conditions that can lead to missed opportunities or unexpected threads and 3) a negotiation where buyer and supplier do not completely understand what, when and how products and services should be acquired.

According to Braga (2006), purchasing of products and services constitutes the biggest component of production costs and sold goods, with the value of purchased products and services having an impact between 50% and 60%. This high impact sets purchasing departments as a high importance and vital department of operations management in the company.

Knowledge of the supplier's market dynamics can be a critical aspect on the process to ensure continuous products and services to the production line. Most buyers fail to foresee or recognize situations in which the supplier may be vulnerable due to restrictions in capacity of production, or even as a relationship issue that arose between both parties. The more knowledge the buyer has over the whole market, the bigger is his capacity to identify these issues and use alternative or multiple suppliers.

Another problem found is the lack of a CIP area. In some companies the functions exist, however the area do not. The buyer will often incorporate the CIP on the daily functions, accumulating both roles. The main problem is that if this buyer no longer works for the company all knowledge is lost.

With this context, opportunities to improve the purchasing process can determine the success of an organization. As a result, the purchasing process becomes a source of competitive advantage, with the buyer now adding value to the organization, as he understands what is bought, from where and why.

The objective of this paper is to identify the key factors that favor a CIP area to be implemented and, also, to understand if this new area adds value to the purchasing function and to other processes on the organization, as well as if the presence of a CIP area generates competitive advantage to the organization itself. The study was conducted with companies established in Brazil.

Competitive Intelligence

Dumaine (1988) defines Competitive Intelligence as the art of legally spying on the competition, citing as example the Japanese companies that, according to the author, train their managers to practice CI on each business: they must be alert all times, assuming the role of collecting information as a fundamental part of the daily work. Under this view, information is vital to accomplish a competitive advantage and, as a consequence, if the workers intend to contribute to the company they need to be ready to identify such advantages.

According to Mairi (1992), Competitive Intelligence is one of the methods to gather information about competitor's performance, as benchmarking – however this must not be confused with industrial espionage: it is a technique to verify, on a perfectly legal way, how others companies make something better than you.

To Evaristo (1995), however, it is necessary to highlight that benchmarking is only one of many possible ways to practice Competitive Intelligence. To achieve its goals, organizations need to understand their competition environment, as well as achieve a high level of integration with such environment, which is always growing in diversity. Porter (1986) highlights that reading the competition environment requires a specific set of skills. On the authors view, it would be necessary to determine a method to decide what information is critical and how to collect and analyze them properly.

Another frequent question associated with the contribution of Competitive Intelligence is the alignment between the organization's strategies and the people responsible for applying them. According to Zanasi (1998) CI is a system or organizational mechanism capable of gathering

information about the competition environment, allowing the company to understand strengths and weaknesses of the competition, to evaluate the positioning amongst other companies of the same sector, and to anticipate actions of the competition, customers and even the government. CI can provide a valuable contribution to organizations, as long as it is used to create a system capable of elaborating the organization's strategies, take decisions on an effective and efficient way and, finally, integrate the organization through the alignment of the company goals and each individual action inside the organization or taking part in the process.

Rothberg and Erickson (2005) states that CI manages the knowledge in a strategical way, aiming the organization's best interest. In the authors perspective, the management of knowledge would be a key and the most relevant factor that any CI initiative. CI requires a long list of information sources such as financial and accounting statements of the competition; economical history of the industry segment; public information available in government regulation agencies; specialist and consultants highly qualified in the specific area; advertisement and propaganda; governmental specialists, amongst others to identify, collect, create and disseminate data and finally promote knowledge. Another proposition of Rothberg and Erickson (2005) is for companies to keep at least one team of CI responsible to research knowledge that the company already possess, but are currently spread through the departments, branches or business units. This information is crucial to face the competition.

On this context, Competitive Intelligence can be defined, in general, as an environmental monitoring system that integrates internal and external organizational knowledge. Competitive Intelligence, with its use in purchasing, has a support role to the purchasing process. Competitive Intelligence in Purchasing supports the decision processes of making versus buying, developing new suppliers, search of technological innovation to guarantee processes or price gains, follow-up on macroeconomic oscillations of purchased products, and to support negotiations with technical and market information.

Implementation Factors of Processes

The implementation of any processes, simple or complex, will affect all the organization. The Competitive Intelligence in Purchasing area has as fundamental role supporting the purchasing function on several activities. Even with distinguished objectives, many implementations of processes present similarities. As there are no prior studies about implementing a CIP area, this paper will adopt as starting point the success factors that affect implementation of a process classified in three different areas: Behavioral; Operational and Organizational. The factors and the authors are showed in table 1 below.

Table 1: Implementation Factors of Processes

Factor	Description	Appearances on Literature					
		1	2	3	4	5	6
B E H A V I O R	Discipline	Respect to Regulation		✓	✓	✓	✓
	Commitment	Follow decision and deals of the process	✓	✓		✓	✓
	Trust	Trust that the individual will behave in a responsible and collaborative manner.	✓			✓	✓
	Involvement	Active participation on the project				✓	✓

	Communication	Opening and sharing information between areas or departments.					✓	✓
	Recognition	Bestowing prizes in recognition of work and contribution	✓					✓
O P E R A T I O N	Availability of information	Data is available and easy to use.	✓			✓		✓
	Information format	Data is compatible to allow sharing.	✓			✓		✓
	Accuracy of information	Absence of error in the information that represents the business.	✓			✓		✓
	Extraction of information	Ease in which useful information are obtained from raw data.	✓			✓		✓
	Education	Training of the teams involved in the process.		✓		✓		
O R G A N I Z A T I O N	Hierarchy	Number of areas and organizational levels involved.				✓		✓
	Culture	“Rules” that all member of the organization must follow and adopt as directives and premises to guide their work.				✓		
	Leadership	The ability to motivate and influence, in an ethical and positive way, so ledaded can contribute in the process.		✓				

Sources: 1 – Ling and Goddard (1998); 2 – Corrêa (2001); 3 – Brander (2006); 4 – Lapide (2005); 5 – Bower (2005); 6 – Sheldon (2006)

Purchasing

The current positioning of the purchasing department is different from the essentially bureaucratic role, characteristic of the traditional mass production model. On this new scenario, how much and when to buy represents a matter of survival and, as such, the purchasing department gains visibility and importance within the organization (Martins, 2003)

With this in mind, purchasing ascends to a fundamental role, as it relates intimately with the supply chain in all aspects, including: procurement planning; identification, development and supplier relationship; purchase orders issues and follow-up; receiving materials; stock management and control; expedition and transport.

As the importance of the purchasing department grows, the work tends to get more strategical, focusing on activities of long-term relationship negotiation, on developing suppliers and on promoting the reduction of overall cost (involves, for example, the cost associated with quality assurance and process administration). The activity of purely executing a procedure to replenish stock based on other areas necessities becomes secondary (Baily *et al.*, 2000).

The purchasing department offers great opportunities to cost reduction in companies, and by consequence, increase of profits. It is important to observe that gains obtained by the purchasing department will almost directly be added to the “profit”, i.e., every monetary unit saved in purchasing generates one monetary unit of profit. (Dias, 2003)

Organization's tendency to aggregate value to its production processes of material or services brought importance to the purchasing area, as the participation on final selling price can represent a percentage around 30-60% on service companies, 50-70% in manufacturing companies and 80-95% in commerce. (Axelsson, Rozemeijer and Wynstra, 2005)

The role of purchasing can no longer be treated as a simple operation, but must be understood as vital component to achieve corporate goals. To achieve that, it is necessary to establish purchasing policies coherent with the goals, which all personal involved with the supply activities inside the company shares. In addition, purchasing strategies need to align with corporate values and policies to ensure a good interaction with the other departments and to prevent a separated and isolated function by the high-direction of the company.

Focusing on continuous improvement on the supply chain, reducing delivery times, increasing service/products quality and, mainly, searching for significant cost reduction, the purchasing area strongly evolved in the last years, effectively contributing to increase the competitive level of companies.

To Viana (2000), even though all can buy, because of daily activities, it is important to conceptualize the activity, which means to search and provide the delivery of materials on the specified quality and on the designated time, at a fair cost, for the company to run, maintain or grow its business. The act of purchase includes the following steps: determine what, how much and when to buy; study suppliers and verify their technical capabilities; promote competition for supplier selection; issue of Purchase Order; follow-up on order and closure after checking material on both quantity and quality control.

Seeing the importance size of a purchasing department inside an organization, the focus of this article is on Competitive Intelligence in Purchasing – or Procurement - (CIP), that has as main activity supporting the processes inside the organization with proper information and techniques, to procure products and services with the competitive approach.

METHODOLOGY

The purpose of this paper is to investigate an emergent phenomenon, i.e., the implementation of Competitive Intelligence in Purchasing on companies established in Brazil and that deal with Brazilian suppliers of different industry segments, aiming as a result a competitive advantage on the purchasing process. The buyer now aggregates value to the business, understanding what he buys, from where and why. General knowledge available about the subject is still scarce. On this paper, an exploratory research with company executives - that deal with the phenomenon of interest - is essential to develop and promote new ideas and discoveries. The methodology applied is a case study, as suggested by many authors (Eisenhardt, 1989; Ellram, 1996; Yin, 2003).

This case study basis its analysis in companies that already have a Competitive Intelligence in Purchasing department formally operational for at least five years. The case study will take into consideration the opinion of executives and the following professionals: directors, managers and buyers.

The research composes of four companies that have the CIP area and the following criteria: access from the researcher to the necessary professionals inside the organization and the restrict number of known companies that have a CIP area implemented. The interviews took place with the executives and professional according to the table 2:

Table 2: Interviewed Parties

Company	Industry Segment	Interviewed Job	Years of experience in CIP
NYC	Drugs	Procurement Manager	15
		Intelligence Purchase Analyst	10
BOT	Cosmetics	Intelligence Purchase Coordinator	8
VS	Steel Mill	Intelligence Purchase Manager	9
ATM	Consultant	Procurement Director	12

Source: Authors.

For the interview, a basic protocol questionnaire was used, with targeted questions about Competitive Intelligence in Purchasing and key-questions for further crossed analysis of the data between the studied cases.

RESULTS

During the interview, the interviewed parties had access to factors of success displayed on Table 1. The interviewed parties answered according to the relative relevance degree in their organization during the implementation of the Competitive Intelligence in Purchasing area, as show in table 3 below.

Table 3: Mentioned Implementation Factors of Processes

Factors	NYC	BOT	VS	ATM	Result
Discipline	Low	Moderate	Moderate	Moderate	+
Commitment	High	High	High	High	+++
Trust	High	Moderate	High	High	+++
Involvement	Moderate	High	High	High	+++
Communication	Low	High	Moderate	High	++
Recognition	Moderate	Low	Moderate	High	+
Availability of Information	High	Moderate	Moderate	Moderate	+
Information format	Moderate	Moderate	Moderate	Moderate	+
Accuracy of information	High	High	Moderate	High	+++
Extraction of information	Low	Moderate	Moderate	Low	+
Education	Moderate	Moderate	High	High	++
Hierarchy	Low	Low	High	Low	+
Culture	Moderate	Moderate	Moderate	High	+
Leadership	Moderate	Low	High	High	+

Source: Authors.

As well as the success implementation factors mentioned above, during the interviews the factors listed on table 4 below appeared as a contributing factor to implement a Competitive Intelligence in Purchasing in the organization.

Table 4: Mentioned Factors to implement CIP

Factors	NYC	BOT	VS	ATM
% Critical Items	Yes	Yes	No	Yes
% Strategical Items	Yes	Yes	Yes	Yes
% Supplier Cost	Yes	Yes	No	No
International Operations	Yes	No	No	No
Leadership	No	Yes	No	No
Company Size	No	Yes	No	No
Alignment & Strategy	No	Yes	No	Yes
Price fluctuation of purchased goods	Yes	No	No	Yes

Source: Authors.

NYC has all the characteristics to favor the implementation of a Competitive Intelligence in Purchasing area. It is a big organization, even though the interviewed party did not mention this as an important factor to implement the area. NYC is in a competitive segment such as medical drugs and, mainly after the introduction of Generic Medication, competitiveness became essential to the business. The interviewed party points out that the financial control of the purchasing area is a basic premise to justify CIP, i.e., implementation of CIP allows tracking of spending evolution in purchasing. Another important point is the development of new suppliers for strategical inputs, seeking the reduction of risks in supply. The understating of the supplier's chain is also an extremely important factor, as is through the study of the chain that request for price renegotiations can be avoided, reducing the organizational costs.

BOT focus on commitment, involvement, communication and accuracy of data as essential factors to CIP to succeed. The interviewed party reports that the database must be free of errors, to produce concrete and realistic reports, so the strategical part of the business can interpret them. Another factor that contributed to the creation of the CIP is the size of the company. The interviewed part reports that, as companies tend to get a larger organizational structure, they have a bigger tendency to have a CIP area.

VS was an interesting case, as it assumes that all factors above have moderate importance and only leadership and hierarchy are the most important, having a perception that, without the vision and belief of the high direction it is impossible to successfully implement a Competitive Intelligence in Purchasing area. Employee's commitment in CIP is also a factor that makes a difference on the success of the implementation.

For ATM, as it is a consultancy company, the Market segment was one of the strongest influences for the creation of the CIP area. By the experience of the interviewed party, there are companies in which the implementation of the area flows better, mainly because of the segment they are in, as is the case with Cars, Chemistry and Petroleum fields for example. The interviewed party reports that companies were the costs are a high percentage of the final price the implementation of CIP is more justifiable.

The result of the research indicates that the factors found on the literature for implantation factor of process were also found on the four companies interviewed. This does not imply that the presence of such factors is enough to justify or even explain the implementation of CIP.

The research also investigated the motives that drove the companies to implement the Competitive Intelligence in Purchasing. The interviewed parties confirmed, based on their

perceptions, that implementing CIP was determining for the decision making process and developing strategies for the purchasing area.

According to the interviewed parties, the following motives drove the implementation of the CIP area: creating alternatives in suppliers to diminish supply risk; cost reduction of products and services, aiming to understand the supplier's chain and their market; Integration of the organization's areas, mainly to share information; clear negotiations, with accurate information; control of purchasing related information.

The result of the interviews indicates that the implementation of Competitive Intelligence in Purchasing was due to factors such as increase in competitiveness that lead to a market turbulence. This does not imply that in less competitive markets the CIP strategy is not suitable; in these cases, the implementation depends higher on more proactive actions by the leadership. One of the possible implications of this finding is the importance of the phenomenon if future markets, as an alternate strategy to companies that certainly will face more agitated markets.

In figure 1 below, we propose a model drawn from the interviews, that shows three periods that refer to the implementation of the Competitive Intelligence in Purchasing: BEFORE (decision to implement CIP), DURING (actually implementing CIP) and AFTER (results of CIP)

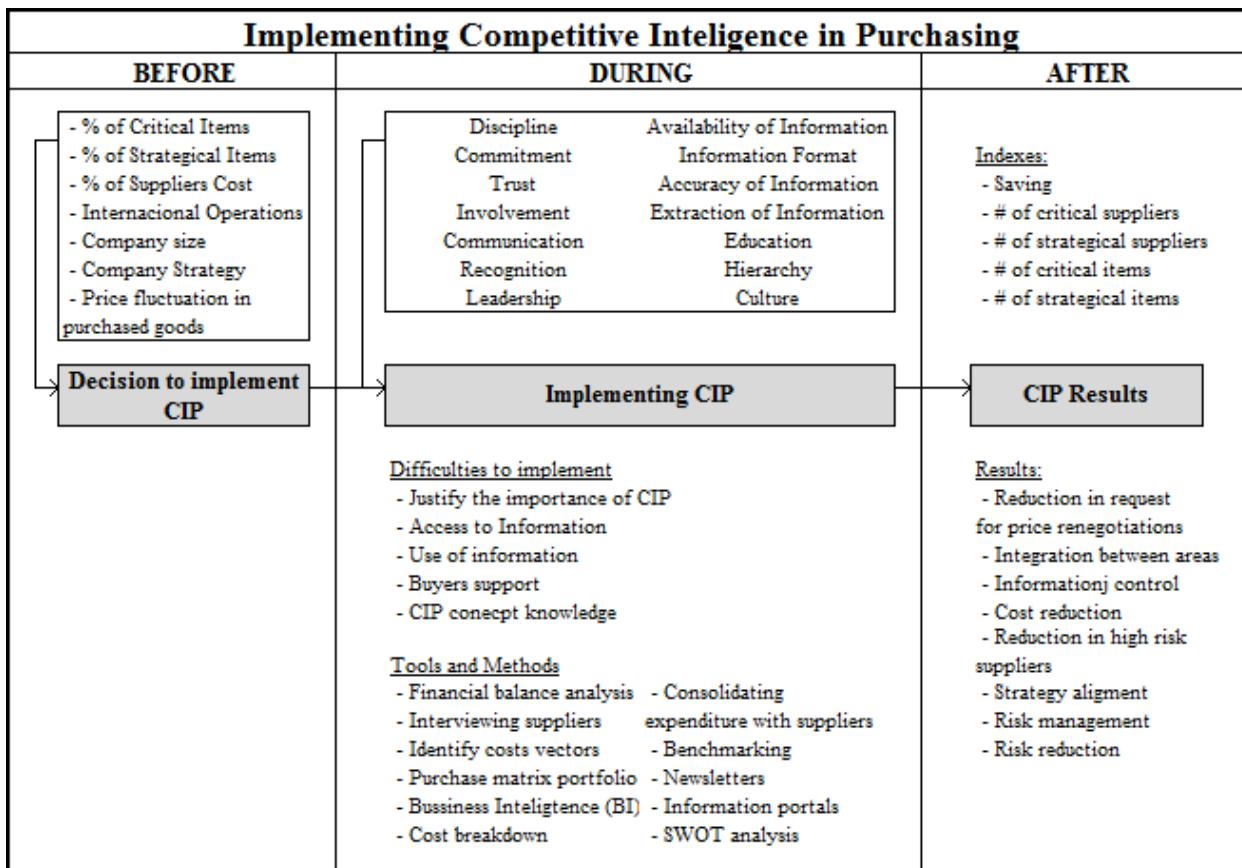


Figure 1: Proposed Model for implementing CIP

CONCLUSION

The trajectory taken in this research shows that Competitive Intelligence in Purchasing has gained relevance as a strategic alternative due to the rise in quantity of purchased products and

services. The corporation challenge of the future is to prosper in a business environment with more different and changeable, sometimes even unpredictable, demands with a lower cost.

The significant factors for implementing a process were located both in the literature and as relevant factors in the interviews; however, a division was established between factors that favor the implementation of CIP and factors that affect the implementation of CIP.

Competitive Intelligence in Purchasing is an important area inside an organization, as it contributes for the company's strategical planning. The elaboration of a strategical supply plan for each category of purchasing can bring benefits and effective cost reductions, generating a competitive advantage.

This paper shows that Competitive Intelligence in Purchasing does more than measure the performance of the purchase department through specific indicators. Its implementation implies, many times, in monitoring your suppliers market to understand what to buy, in which quantity, from where and from whom. Beyond understating the internal information of an organization, CIP understands the supplier's market, especially on strategical products/services. It also helps buyers on the negotiations with market information. On this context, CIP is very important to break the barriers that normally hold back alternatives in supply. The development of new suppliers can bring a reduction in cost, reaching a competitive advantage.

We noticed that the Procurement function traditionally focused on exclusively operational aspects of replenishing stock is changing. The function of procurement is now more integrated and incorporated to each company's supply chain and business process. The role of the buyer is now segmented in several aspects: strategical, conducted by CIP; negotiation, conducted by specialists; and operational, conducted by different teams. This scenario is present on the companies of this case study and indicates that new changes await companies in medium and long-term scenarios.

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