

Competitive intelligence: functional practices, goals and infrastructure of companies in Brazil

Inteligência competitiva: práticas funcionais, objetivos e infraestrutura em empresas no Brasil

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Abstract

The present article aims to describe the functioning of Competitive Intelligence, analyzing methods, techniques and new models in active organizations in Brazil. Particularly, we seek to describe the set of practical experiences of these organizations. From the methodological point of view, in the qualitative and descriptive research, we used a semi-structured interview applied to 13 industrial and services organizations in 2011. It was concluded that the methods and techniques of Competitive Intelligence are not disparate, for the most part, involving diverse techniques of market information monitoring, as well as the treatment of this information. According to the research developed, a disparity was detected in the objectives for the activity, which may be related to factors such as: the activity sector, culture, size and the market place chosen by these organizations.

Keywords: Competitive intelligence. Competitive intelligence methods and techniques. Organizations.

Resumo

No presente artigo objetivou descrever o funcionamento da Inteligência Competitiva, analisando métodos, técnicas e novos modelos em organizações com atuação no Brasil. Especificamente, procurou-se descrever o conjunto de experiências práticas dessas organizações. Do ponto de vista metodológico, na pesquisa qualitativa e descritiva, utilizou-se um roteiro semiestruturado de entrevista aplicado a 13 organizações industriais e de serviços no ano de 2011. Concluiu-se que os métodos e técnicas de Inteligência Competitiva não são díspares, em sua maioria, envolvendo técnicas diversas de monitoramento de informações de mercado, bem como o tratamento dessas informações. Conforme a pesquisa desenvolvida, detectou-se ainda uma disparidade nos objetivos para a atividade, o que pode estar relacionado a fatores como: o setor de atuação, a cultura, o porte e o posicionamento de mercado escolhido por essas organizações.

Palavras-chave: Inteligência competitiva. Métodos e técnicas de inteligência competitiva. Organizações.

Introduction

The diversity of external environment aspects, which need to be monitored, requires significant effort by managers and decision makers. In this sense, Competitive Intelligence is an important instrument for monitoring external environment information, especially to minimize uncertainties and create market value concerning competitiveness. However, due to the

unfamiliarity of many business people, the use of Competitive Intelligence is still at an early, fragile stage. It is underexplored and a relatively unknown action within the corporate context, particularly in Brazil.

As a problematic situation, we also discuss the fact that literature on the topic does not consistently discuss functional practices, methods and techniques for the structuring and development of Competitive

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Intelligence systems in organizations, as it has been detected by previous studies, such as the one conducted by Vidigal (2011) for the doctoral thesis in Information Science.

This article reflects on an integral part of the aforementioned thesis, in which the methodological experiences of Brazilian companies in Competitive Intelligence are discussed. As such, the approach is as an opportunity to consolidate the discussion on Competitive Intelligence in the field of Information Science, as well as promoting contributions for a better understanding of the area and its practical applications in the light of the experiences of other organizations. As guiding questions for this discussion, the following were chosen: "How does Competitive Intelligence work and how is the process distributed in the organizations studied?". "What are the goals of Competitive Intelligence?". "What is the existing structure for the practices of Competitive Intelligence in these organizations, involving eventual Information Technology mechanisms and the physical apparatus used?".

The goal of the article was to: describe how Competitive Intelligence functions in organizations; analyze its methods and techniques in the sense of contributing to the implementation and adaptation of new Competitive Intelligence models in other organizations. Two specific objectives were established: a) to describe the set of practical experiences using Competitive Intelligence and b) to identify methods and techniques practiced in different organizations regarding Competitive Intelligence.

The activity of Competitive Intelligence presupposes the systematized use of ethically and legally obtained information, relating to the overall competitive environment so that the organization can establish trends and scenarios and respond faster to the market changes of its competitors (Prescott; Miller, 2002, p.27, my translation)².

As with the understanding of the origin of corporate strategies, the literature associates the military origin of nations with a great affinity of companies to use intelligence. The intelligence experiment drew attention

in the United States, but it is marked by the oriental model, above all in post Second World War Japan, as discussed by Kahaner (1997). A different model is developed in China involving an important participation of the Chinese government. In Europe, countries such as Germany, France and Russia are famous for aligning their military experience to intelligence practices, as discussed by Vidigal (2011). Other European nations already adopted it, but they do not show the same development and demonstrate a greater need for formalization, planning and adjustments of the models adopted in their companies.

Market volatility and the fierce competition model, mainly through globalization, has led managers to dedicate their time to understanding what is happening to the organization's external environment. As such, attention has been paid to the processes of interpretation and environment monitoring, a classical approach advocated by Aguilar (1967). The activity of monitoring environment information provides support to the executives when defining organizational goals, looking for alternatives that enable these goals, as well as how to choose between the diverse alternatives presented.

In the field of Information Science, the understanding of the strategic management of information is frequently guided by the contribution of Choo (1998). Under the perspective of information, any change or development in the external organizational environment creates signals and messages the organizations should pay attention to. These signals may be weak (when they are difficult to detect), confusing (difficult to analyze) or spurious (when they don't indicate true/real changes). "[...] an organization must develop and sustain effective information and maintain knowledge management processes, such as Competitive Intelligence to achieve its strategic goal and competitive advantages" (Bergeron; Hiller, 2002, p.358).

Organizations need to interact with the external environment by being more competitive, that is, anticipating market changes, and above all in response to the volatility of their macro-environment (political, economic, socio-cultural, technological and regulatory).

² "A atividade de Inteligência Competitiva pressupõe o uso sistematizado de informações obtidas ética e legalmente, relativas ao ambiente competitivo geral para que a organização possa estabelecer tendências e cenários e que possa responder mais rapidamente as alterações de mercado do que seus concorrentes".

As Prescott e Miller (2002) point out, in a global market saturated with data, the need to transform information about competitors into intelligence has never been so latent.

Still on the need for intelligence, Murphy's (2006) analysis shows that having a good understanding of the nature of competition and scenarios and their changes is of vital importance in making corporate decisions. When perception - both of the competition and the environment - is compromised, the choices made by the decision makers can increase error probability.

The activity of Competitive Intelligence also consists in finding available data based on public sources or even within the organization itself. In another sense, the intelligence activity in organizations uses internal information, as well as the external public information, though not necessarily published, as sources to find and reinforce information on the market environment, such as clients, competitors, associations, clients' employees (sales people, service agents and employees related to those working for the competition) and company records (Fleisher *et al.*, 2008). Sometimes, data is sought through these sources and other times it arrives by chance. Other available sources are government records, newspaper clippings, interviews, press bulletins and specific industry sector magazines. Finally, the authors affirm that Competitive Intelligence professionals are curious by nature, which could suggest an ability to enhance and expand the information sources for an organization.

In relation to information products generated by the activity of Competitive Intelligence, attention must be drawn to the cycle of activities that transform information into intelligence, which would be based, therefore, on strategic planning and direction-setting activities, before following on to the collection of information itself and subsequently, to the analysis phase (Choo, 2003). Finally, it would go through the stage of the systematic dissemination of this intelligence in the user areas of the organization. For the organizational environment, this stage may be seen as a product to be delivered by the Competitive Intelligence activity to the organization.

For Choo (2003), The Competitive Intelligence activity starts from an analysis phase of the systematically gathered information about the external environment.

The external information, on being internalized, needs to follow internal flows to construct meaning.

After the information has been collected, processed and filtered, one has the main products of Competitive Intelligence, which are delivered as reports, *clippings*, analyses or "information dossiers". According to Marin and Poulter (2004), these products are the result of the monitoring of competitors, market news, financial statements, and changes in legal scope, patents, brands and copyright.

Another important contribution is that of Tarapanoff (2001), who define intelligence as the capacity of organizations to monitor environment information to satisfactorily respond to challenges and opportunities that continually present themselves. According to the authors, the intelligence aims to imprint an adaptive behavior on the organization, enabling it to change and adapt its goals, products and services in response to new market and environment demands. Along the same lines and complementarily, Herring (1996) argues that the process of intelligence within the context of organizations is a process of monitoring and anticipating movements in the competitive environment and its macro-environment with the objective of gathering and analyzing the information that enables the strategic and tactical levels to support decision making, bearing in mind the generation and sustainment of competitive advantages.

Gilad (2003) highlights that one of the main needs of an organization is to avoid the creation of "blind spots", that is, those that occur due to the supremacy of internal conviction about the facts and data gathered from the environment; a conviction that may lead to unsuitable judgments and lead to incorrect decisions, affecting the organization's performance. In this sense, the understanding of the internal environment, reducing the "blind spots" and contributing to the optimization of decision making processes in organizations is the role of Competitive Intelligence.

As Vidigal (2011) discusses, the essence of Competitive Intelligence is not in the use of technological resources. It is a fact that Competitive Intelligence professionals greatly depend on numerous secondary sources of information, which in turn will be more accessible with the availability of technological tools, indubitably less valuable than the primary sources, which

involve a more “personal” aspect approach. This affirmation is confirmed by the contribution of Marin and Poulter (2004). According to the authors, technology in Competitive Intelligence is only one of the parts of the process and it is more present in organizations with greater complexity of strategic information use.

In Murphy’s (2006) understanding, Competitive Intelligence must be something developed in a conscious, directed, systematic and planned manner - procedures that according to the author are approved by the majority of successful companies. Competitive Intelligence should be adopted with a view to the preservation of large corporations with ample resources, but it may also be useful and essential to smaller organizations. The fundamental difference highlighted by Murphy (2006) is in the attitude and adoption of a planned proposal for the activity. In this sense, a common error is the fact that organizations dedicate excessive attention to intelligence focused on competitors and the threats that they pose to the organization.

Methods

For the methodological classification of this study, contributions by Minayo and Sanches (1993), as well as Gil (2006) were used. The methodology applied can be classified as qualitative and descriptive. The methodological trajectory involved field work conducted through interviews based on a semi-structured interview. These interviews generated written records of conversations with those in charge of developing and executing the Competitive Intelligence activity in companies. The group of respondents was formed by professionals responsible for the development of Competitive Intelligence processes such as managers,

supervisors and analysts of market intelligence and Competitive Intelligence.

The criterion used by companies for choosing the professionals was accessibility and detection/awareness of effective experience in the application of Competitive Intelligence practices. Although companies distributed in diverse regions of Brazil had been contacted, of the researched organizations, it was possible to achieve a return from 13 large scale organizations with operations in the following segments: diversified technology, contact center, refrigeration industry, steel, cosmetics, automobile industry, galvanization, mining and aluminum, truck industry, feed benefits, software, iron mining and higher level education. Their industrial units or administrative centers are located in Southern (*Paraná, Santa Catarina and Rio Grande do Sul*) and Southeast (*Minas Gerais, Rio de Janeiro and São Paulo*) Brazil. Some companies in the Northern, North-Eastern and Central West region did not participate, mostly because they were planning or in the early implantation phase of Competitive Intelligence practices at the time of research.

The interview script proved to be important to define the information collection and to bring participants up to speed on the purpose of the investigation. Among the points investigated in the research, the methods and techniques of applied Competitive Intelligence were evaluated. These were described using the questions shown in Table 1.

Results

According to Question 1, it was a difficult to detect and define where the Competitive Intelligence activity would be located in the organizational structure, although only one of the researched companies had

Table 1. Script of the semi-structured interview.

Questions	Content analyzed in light of the objectives
Question 1	Describe the functional model of the Competitive Intelligence activity of this organization, considering three aspects: hierarchical location in the organization, centralization and decentralization of the activities?
Question 2	What are the Competitive Intelligence objectives in your organization?
Question 3	Which is the infrastructure of the company regarding the Competitive Intelligence activities in your organization, including eventual information technology resources?

Source: By authors (2012).

officially declared that it was subordinate to an executive management, which, in turn, was connected to a "general commercial board". This is because the company had declared being a holder of a fragmented area of Competitive Intelligence, that is, there is the concomitant execution of the activity in other sectors of the organization.

In 38% of the companies researched, Competitive Intelligence activities are related to the departments of "Marketing", representing the majority. It is worth noting that there was a relative equilibrium between the other two areas indicated: "Commercial and Sales" and "Planning and Strategic". It was found that 30% of those interviewed reported that Competitive Intelligence activities in their company were related to the "Commercial and Sales" area and 30% reported a hierarchical connection to the "Planning and Strategy" area.

With regard to Question 2, the content of answers confirmed that the objectives of Competitive Intelligence are aligned to information support and subsidy for decision-making in organizations, with a special focus on strategies and marketing. Furthermore, a variation was detected regarding the use of intelligence in the same company, both in terms of market research and service and excellence in existing customer service. Besides this, support in the area of Research and Development (R&D), responsible for new products, was indicated as one of the functions of the activity. More specifically, the following prevalence of objectives was noted: expanding competitive advantages, enabling market forecasting and the development of competitive positioning, as well as the continuous analysis of market information. Approximately 15% of the interviewees reported that it might be necessary to change the organizational culture to achieve the goals, particularly among the sales team, described as a group resistant to internalizing the importance of their participation to achieve Competitive Intelligence objectives.

As for Question 3, research on "Infra-structure for Competitive Intelligence and own venue for activities", indicated that more than 80% of the companies researched had a physical space dedicated to Competitive Intelligence activities, involving fixed offices and workstations. However, it was observed that 30% of the

reports the same companies that invest in physical space have decentralized activities being developed concurrently with centralized activities. Another relevant point identified among interviewees was the "mobility" factor as a form of expanding the Competitive Intelligence structure of the organization. According to the data collected, there was a trend to make partial data available on the web, with access restricted to employees - more often the sales force - to facilitate mobility and agility for data transfer. In this sense, it is intended to produce greater dynamism in Competitive Intelligence activities, as well as promoting greater agility in decision making. For this purpose, the commercial representatives are provided with, and use, laptops, smart-phones and tablets during client visits at their point of sale. This in turn supplies a Data Center that then generates information for Competitive Intelligence activities located in the central offices of companies.

As for the use of "Information Technology Resources (IT)", that is, the use of specific softwares in Competitive Intelligence activities, some Business Intelligence (BI) tools were mentioned, such as: IBM Cognos, Statistical Analysis System (SAS), Qlik View, Microsoft Share Point, and Inter-Services Intelligence (ISI), as well as the integrated systems of corporate and customer relationship management - Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM), respectively. The use of resources disseminated in the consumer market such as Microsoft products are often used in organizations researched. It was noted that the use of specific software took place in 46% of companies. Of the companies that reported not using any type of specific software for Competitive Intelligence activities, the main tool mentioned and used regularly is Microsoft Excel, followed by Microsoft Access.

Discussion

The discussion of results from the research questions was based on the universe researched, which covered sources of information in the national and, in particular, the international realm (75%). More specifically, bibliographical works were researched, as well as a systematic search of information sources such as the *Coordenação de Aperfeiçoamento de Pessoal de Nível*

Superior (Capes, Coordenação para o Melhoramento do Ensino Superior) Periodicals Portal. Besides this, theses, main periodicals and publications in the field of Information Science were researched, as well as those in the area of Administration, especially electronic publications available on international portals of the Competitive Intelligence Professional Societies, distributed in different countries.

As for the results of Question 1, empirical studies described by Marin and Poulter (2004) - carried out in more than 600 organizations - also affirm that the marketing or planning departments are the most usual location in the organizational chart regarding the function of Competitive Intelligence. The literature is not clear in relation to the centralization or decentralization of the activity. Nevertheless, a comparative analysis described by Marin and Poulter (2004) proves the results of the thesis research. According to the authors, 46% of the companies researched have their Competitive Intelligence functions in the department of marketing or market research.

With regarding to Question 2, the in-field research results were compared with the classical literature. Based on Murphy (2006), it is also essential to know which companies exercise the role of direct rivals and which offer products that may act as substitutes for our products and services. Garber's (2001) findings are also in agreement with those found in our field research. The content described by the author confirms the objectives reported in the interviews discussed here. According to the author, almost all areas of the company need to know the behavior of the consumers or the elements that regulate the relationships of the organization.

In the literature researched, there was no specific information on the physical structure of organizations for the activities of Competitive Intelligence. In the international literature researched, Calof and Brouard (2004) described the Competitive Intelligence infrastructure in Canada and emphasized the concern of Canadian companies with the development of "intelligence units" in corporate environments. With regard to the technological resources, the literature confirms the results of Question 3. On Information Technology in Competitive Intelligence activities, Marin and Poulter (2004) highlight the disinformation of the concept, that is, they argue that it is mistaken to think that the capacity of competitive intelligence is "entirely"

dependant on Information Technology. Field research showed that the resource coming from Information Technology, such as specific software, is not an essential factor for the practices of Competitive Intelligence.

Conclusion

To achieve the overall goal of the article, aspects relating to the functioning of Competitive Intelligence in organizations were analyzed by studying their methods and techniques. We endeavored to describe the set of practical experiences related to the use of Competitive Intelligence and to indicate the methods and techniques practiced in different organizations regarding Competitive Intelligence in the field of Information Science.

It was concluded that the methods and techniques found and described are not entirely disparate, involving diverse techniques in market information monitoring. Information also receives different treatments within the organizations researched since, even without noting an important disparity in practices, there are many different objectives among them, which could be related to the sector of activity, culture, size and the market place chosen by them.

Organizations tend to work in a professional and structured manner when they invest in a Competitive Intelligence physical structure - physical space with computers and workstations intended for the activities. As long as they are hierarchically connected to upper management, Competitive Intelligence activities can contribute to a strategic alignment of the organization, that is, fulfill strategic planning guidelines, as well as serving as instrument to verify the effectiveness of their actions and performance in relation to the marketing efforts of the organization - such as feedback from customers concerning the image of the organization and their perception of the products and services offered. Organizations can and should be aware of their competitors' actions, creating conditions to anticipate rapidly the strategies of the different players in the competitive sector environment, as well as contributing to the protection of the organizations from the relevant macro-environment forces, such as uncontrollable external environment variables.

The Competitive Intelligence activity involves different practices that cover information analysis arising from the political, socio-cultural, technological, ecological and natural environment and particularly the regulatory or legal environment. To analyze the circumstances, techniques may be used for the purpose of predicting and analyzing information, such as Delphi, Analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT), statistical analyses and econometric predictions (such as multiple linear regression), simulation techniques such as War games, forecasting by judgment (of sales people, consumers and managers) or simulations such as "Mr. Shopper" - techniques that may be used as sources of information. In addition to these, information coming from clippings acquired from information companies, institutes specialized on research, associations or even clippings developed by the organization itself based

on the analysis and cross referencing of market and customer information may be used.

These results show points of attention for eventual studies in the field of Information Science. Considering the gaps and demands regarding the use of information in contemporary organizations, we believe that these gaps represent opportunities for new studies, since the subject has not yet been discussed consistently in other fields of knowledge, such as Administration, for example. Further studies should conduct other discussions that may confirm eventual typologies or the tendency to use techniques for predicting and monitoring the external and sector environment. Therefore, further studies may identify the prevalence of the principal sources of information for Competitive Intelligence on market segments investigated here. We believe that, in this sense, research may contribute to the adoption of practices and the implementation of new models of intelligence in organizations.

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