

## Competitive Intelligence: A review of the literature

## Intelligence Economique : Une revue de la littérature

**Soukaina RIZKI**

PhD candidate, Faculté des Sciences Juridiques Economiques et Sociales Ain Sebaa

Université Hassan II - Casablanca

Laboratoire de Recherche en Management, Information et Gouvernances

**Abdelati HAKMAOUI**

Professor, Faculté des Sciences Juridiques Economiques et Sociales Ain Sebaa

Université Hassan II - Casablanca

Laboratoire de Recherche en Management, Information et Gouvernances

**Malika HAOUCHA**

Professor,

Faculté des Sciences Juridiques Economiques et Sociales Ain Sebaa

Université Hassan II - Casablanca

Laboratoire de Recherche en Management, Information et Gouvernances

**Date de soumission** : 20/08/2019

**Date d'acceptation** : 17/10/2019

**Pour citer cet article** :

RIZKI S. & al (2019) « Competitive Intelligence: A review of the literature » Revue Internationale des Sciences de Gestion « Numéro 5 : Octobre 2019 / Volume 2 : numéro 4 » p : 347 - 363

**Digital Object Identifier** : <https://doi.org/10.5281/zenodo.3520080>

**Abstract:** In an unstable environment, where understanding and analyzing developing threats and opportunities do not become an option anymore, companies are realizing that there should be major changes in how they make their decisions. The increasing competition has been a major impetus for practitioners to implement competitive intelligence functions within their organization in order to make better decisions.

**Purpose:** The aim of this article is to analyze the existing literature on competitive intelligence, its evolution and related concepts with a focus on competitive intelligence processing and decision-making.

**Approach/ Findings:** The approach used for this article was a literature review analysis of available online articles. We sought to synthesize the literature and provide a better understanding of the current state of CI research. Search engines and academic databases were used to provide relevant literature, using “Competitive intelligence, Market intelligence, Business intelligence”; which then led to other relevant sources by reviewing the references. The result of the study shows that most scholars define CI as a process that helps companies catch opportunities and developments, as well as support their decision-making.

**Keywords:** competitive intelligence; business intelligence; market intelligence; literature review; decision-making.

**Résumé:** Dans un environnement instable, où l'analyse des menaces et opportunités n'est plus une option, les entreprises réalisent qu'il devrait y avoir des changements majeurs dans la manière dont ils prennent leurs décisions. La concurrence croissante a incité les praticiens à mettre en œuvre des fonctions d'intelligence économique au sein de leur organisation afin de prendre de meilleures décisions. Le but de cet article est d'analyser la littérature anglo-saxonne sur l'intelligence économique, son évolution et les concepts associés, en mettant l'accent sur le processus de l'intelligence économique et la prise de décision.

**Mots clés :** intelligence économique ; veille stratégique ; veille marché ; revue de la littérature ; prise de décision.

## **Introduction**

The purpose of this article is to analyze the existing literature on competitive intelligence (CI); the examination is done through a review of related literature from available articles on CI. The paper aims to understand competitive intelligence, its evolution and related concepts with a focus on competitive intelligence processing and decision-making.

The extreme rivalry caused by globalization (Wright, Eid & Fleisher 2009), motivates companies to seek for tools that will enable them to stay competitive.

Competitive intelligence is a tool that helps decision-makers and provides a competitive advantage to enterprises (Fleisher & Wright 2009; Haataja 2011).

Although competitive intelligence is not a new business activity, it is a relatively new academic study field (De Pelsmacker et al., 2005); it began when Michael E. Porter designed the basis of strategic thinking in business. According to Fourie (1999), the main contributor to the development of CI as an academic field is Porter with his work on strategic management and competitiveness in the mid-1980s, where he described competitive strategy as being different and accomplishing activities differently than competitors do.

According to the literature, the concept of “Competitive Intelligence” has deep historical roots in the military. Some scholars consider Sun Tzu’s book “The Art of War” as the earliest reference to CI.

Since CI is a relatively new academic study field, it is very important to define it the right way. Competitor Intelligence, Business Intelligence and Industrial Espionage are literature terms used interchangeably with competitive intelligence.

This article explores the contemporary views of CI as well as their link to other intelligence-related concepts. So how can we define competitive intelligence and what is its link to management?

## 1. Conceptual Background

### 1.1. Competitive intelligence related concepts

There is no common conception of the content of business intelligence (Gilad 1996:4), some scholars think of BI as being more like market intelligence (MI) or Competitor Intelligence. Defining competitive intelligence (CI) or business intelligence (BI) generates a debate between practitioners and academics.

It is a common mistake to confuse CI with market research, since the gathering and analysis of information takes a different form (Wright et al., 1999; Prescott, 1995).

Although market research provides strong information about customers and competitors, it remains sparse compared to competitive intelligence.

According to Smith & Prescott (1987), this arises because competitive intelligence analyses are often performed by marketing research personnel.

According to Sauter (2010), CI is usually referred to as a subset of Business Intelligence (BI). The author adds on to this by stating that CI information has a mainly semi-structured or unstructured nature- versus the well-structured information used in BI. In this sense, Sassi, Frini, AbdesslemKaraa& Kraiem (2015) define CI as a sub-domain of BI, explaining how it deals with the competitive environment of the company.

While Gordon (1989) indicates that the primary objective of CI is to develop strategies and tactics that help the company catch market share from its competitors, Kahaner (1996), in the same vein, focuses mainly on competitors by highlighting the systemic nature of CI, stating that CI is “*a systematic program for gathering and analyzing information about your competitors’ activities and general business trends to further your own company’s goals*”.

These statements show that companies using CI practices should focus mainly on tracking competitors. Whereas intelligence focused on the competitor is a different practice.

Most early studies as well as current work focus on the internal and external environment of a company, for instance, Bergeron & Hiller (2002) recognize that CI considers various areas of intelligence such as competitors, technology, product/service, environment, economy, legislation/regulation, mergers and acquisitions, customers, suppliers, market, partners, social/historical/political environment, and the internal environment of the organization.

Although Competitor Intelligence is an essential element of corporate strategy, it remains a technique used only to assess potential and current competitors, whereas CI contemplates several extents of intelligence.

Gilad (1989), in a series of subtle arguments, points out that an organized CI focuses on competitors, suppliers, customers and other external forces that are related to the company.

CI includes Competitor Intelligence along with intelligence collected on customers, suppliers, technologies, environments, or potential business relationships (Gilad, 1989: 30). Wright et al. (2002) confirm this and add that Competitor and Competitive intelligence are dissimilar.

The matter concerning the way competitive intelligence results in knowledge creation is becoming a main concern for many companies.

In the 2000s, a major shift emerged in the academic literature on CI beginning to approach the topic from a broader process perspective, which we discuss in the second section of this article.

### **1.1.1. Definition and evolution**

The term competitive intelligence (CI) has innumerable definitions. The literature in this area is developing and adds value to researchers, academics and practitioners.

Competitive intelligence is a growing field of study, which has become progressively important in the business arena since the early 1980s, although related references to the field have already been identified as far back as 1930, see (Childs 1930) in the industrial economics and embryonic business and corporate strategy literature and as far back as 1905 (Greene, 1905) in the business intelligence literature.

CI is considered a combination of legal and ethical methods engaged by an organization to obtain actionable information about the competitive environment to assist the decision making process (Fleisher, 2004: 56).

According to Dishman, Fleisher and Knip (2003a, b and c), the available material on CI can be categorized into scholarly articles, books, book chapters and practitioner pieces.

This shows that CI could be seen from different perspectives: practitioner, academic or a combination of both.

While there have been articles on competitive intelligence literature, only few examine the three above perspectives.

Calof, & Wright, (2008) draw attention to the need for the integration of additional and complementary fields of study, highlighting the growing emphasis on CI activity within the media. In this vein, the authors mentioned the Market Wire press release in 2007, which reported that America's largest 1,000 companies were likely to rise their expenditure on workforce and CI activities to at least \$10 billion by 2012, from present spending of around \$1 billion.

Moreover, an international survey of 520 CI professionals by the Competitive Intelligence Foundation (2006) stated that over 25% of respondents said their firm's CI spending in 2000 crowned \$100,000. Nearly 14% of respondents said their firm spent over \$500,000 on CI or CI-related activities.

Therefore, the authors suggest that an ardent understanding of all business functions, especially marketing and planning is necessary.

CI has experienced progressive evolution; Prescott (1999) shows the four stages of CI evolution:

**-60s and 70s:** The highlight of this period was Competitive Data Gathering, which resides in developing skills in information acquisition. It consists, for the leaders to gather information about their business environment. This approach is positioned in the top management of firms, on the operational level.

**-1980-1987:** The key issue of this period was the evolution from the concept of Scanning to Competitive Intelligence by going beyond the simple approach of gathering and exploiting information relating to the business environment. This stage highlights the need to analyze the information collected for strategic purposes beyond a simple tactical approach.

**-1988 to 2000:** The striking fact of this period was Competitive Intelligence for Strategic Decision Making, This approach results in the establishment of an organizational structure for the analysis of the competitive environment that is able to transmit this collected data to the decision makers of the company.

**-More recently:** generating strategic meaning of the information collected through a CI process.

In 2015, Du Toit looked at the competitive intelligence peer reviewed articles reported from 1994 to 2014. She provided a lens of the evolution of competitive intelligence as an academic study field over the past 20 years, stating that the CI field is wide and interdisciplinary.

The results indicate that the majority of the published articles (72%) used a descriptive research methodology, followed by case studies (9%). This shows that intelligence articles are predominantly descriptive in nature.

Her research findings explain how current theories may not satisfactorily offer a framework to comprehend, clarify and forecast the new growths in a unique context.

## **2. Competitive intelligence and relationship with management**

### **2.1. Competitive intelligence processing**

Managers place significant importance on CI in terms of its role in strategy development and decision-making CI activities influence managerial CI and goal setting, Oubrich et al. (2018). As such, it is driven by the management of the company, which must define its objectives and the major questions to which it must respond. At this first stage of the CI process asking the right question is the key to getting relevant information.

When defining competitive intelligence as a process, Pellissier & Nenzhelele (2013) referred to it as *“a practice that produce actionable intelligence by ethically and legally collecting, processing and analysing information about the external or competitive environment in order to help in decision-making and to provide competitive advantage to the enterprise.”*

It is apparent from this definition how CI plays a major role in a company's future position by seizing opportunities based on what the organization attempts to achieve.

In the same vein, Rouach (2001) defined CI as the art of detecting, collecting and processing, storing information and relevant signals (strong, weak) to guide the future (technological, commercial ...) as well as to protect the present and the future against competitors. This definition involves the four phases of the competitive intelligence process as well as the CI outcomes.

While Blankenship et al. (1998) claim that competitive intelligence includes three functions: the collection and storage of data, the analysis and interpretation of information, and the dissemination of intelligence, Myburgh (2004) describes the CI process as the systematic collection, analysis and evaluation of information for competitive advantage over known and potential competitors. Although this describes the phases of the CI process it focuses only on competitors and excludes other actors such as industries, governments, trends of suppliers, markets.

Competitive intelligence, as a process, have been discussed by Kahaner (1996) and other scholars, it is a process involving stages that are related.

Figure 1. The competitive intelligence process



Source: Edited version (Kahaner, 1997; Prescott & Smith, 1989)

Kahaner (1996) arranged the CI process into four steps:

- 1) **Planning and direction:** it aims to specify the actors to inspect, as well as sources of information to implement. Moreover it consists in identifying the personnel who might collect information about the target environment, assigning them their information gathering missions
- 2) **Collection:** it includes the actual gathering of unprocessed information needed to produce intelligence.
- 3) **Analysis:** requires the conversion of basic information from all sources into finished intelligence, which gives additional meaning to raw information.



4) **Dissemination:** it is the transmission of the intelligence in order to make it accessible to decision makers.

Through these steps, Kahaner points out the characteristics of CI and explains how it is an activity that focuses on the gathering, examination and diffusion of information to be accessed by all the staff, additionally the outcome helps to make a change in the company.

Competitive intelligence is defined by Dishman & Calof (2008) as "*a process involving the gathering, analyzing, and communicating of environmental information to assist in strategic decision-making...it is the fundamental basis of the strategic decision-making process*". The authors defined CI as a process associating it to decision making, which is something strongly recognized and linked to competitive intelligence throughout literature. Besides, previous research showed that many scholars discussed this interaction.

Kahaner (1997:12–14) highlights the new world of CI by describing the CI process involving efficiently, systematically and economically collecting information, analyzing it to finish up using it for decision making. Several theories have suggested that 80% of information a company needs for its decision-making is open information, which means that the source delivers information of its own free will. (Hambrick 1981; Gilad and Gilad 1988; Gordon 1989; McGonagle and Vella 1998; Teo and Choo 2001).

Hitt, Ireland, and Hoskisson (2000) confirm this by explaining that CI, through environmental analysis, helps produce relevant and strong information. The effectiveness of such approach is essentially based on the efficient use of strategy to define the most appropriate development strategies.

Although these authors and others perceive CI as a contributor to the success of a firm, affecting the company's decision-making process and providing a balanced picture of the environment to managers and decision makers, some skeptics argue that:

-the potential contribution of competitive intelligence is often overrated (Weiss, 2011)

-the effect that competitive intelligence has on an organization is indirect (Kahaner 1996, 230).

-the direct effect of competitive intelligence in an enterprise is difficult to quantify (Kahaner 1996, 230).

-the intelligence gathering is questionable due to ethical issues (Paine, 1991).

To abridge, competitive intelligence is a cycle of information whose purpose is the production of strategic intelligence and added value. Each output of this cycle is an input of the following until a decision is made.

## 2.2 Competitive intelligence and decision making

Decision-making is a non-linear process, which consists in making a choice supposedly enlightened by information and motivated by the experience or the intuition of the decision-maker, amongst several possible options. It's not essentially about looking for the best solution, but rather to fully understand the situation in order to decide the most suitable and adequate solution for stakeholders (Zsambock & Klein 2014)

Literature showed that the important role of CI in decision-making received massive recognition from many scholars. In this aspect, organizations need to develop and maintain effective competitive intelligence activities, to achieve their strategic goals. According to a GIA study in 2013, companies with a CI unit have a 15% efficiency increase in their decision-making. (GIA, 2013).

Competitive intelligence is a critical factor in the company's ability to put in place useful knowledge for decision-making. Auster & Choo (1994) are the first to prove that there is a strong correlation between the degree of uncertainty perceived by managers and the CI activities. The study explored how executives use environmental information in decision making, more precisely, these authors have demonstrated that information collected through CI allows decision-makers to identify opportunities and threats, which leads them to decide to improve projects and therefore make strategic decisions about these projects. Thus, CI optimizes the potential ability to

access to information and consequently avoid threats and catch opportunities by making faster decisions, which lead to faster actions.

The decision-making process depends on the quality of information and the information system adopted. (Alami & Aftis, 2019). Each business matter or strategic decision must be reinforced by vigorous, forward-looking intelligence (Fahey & Herring 2007:13). This link between information and actions to be undertaken is integrated into the decision-making process in order to justify choices and provide a follow-up of the action.

Here we move from a technical definition (classical intelligence approach) to an organizational approach involving several actors and parts of the company, as well as the interaction between them.

The importance of CI in decision-making has been studied and stated broadly in the works of Fleisher and Wright (2009), Du Toit (2015), Wright, Eid and Fleisher (2009), Calof and Wright (2008) and Fischer (2018) to reference a few. In the scientific and professional literature, competitive intelligence mostly fits into a decision-making perspective.

The decision-making process is not static, it must adjust and evolve over time, and for this, it is important for companies to:

- share information
- assess the quality and relevance of decisions
- reformulate, change, improve

According to Bergeron et al. (2009), competitive intelligence would help reduce uncertainty by providing a better understanding of the external environment. It would therefore contribute directly to decision making.

To develop a competitive advantage, companies must be able to create asymmetry of information. CI aims at better control of useful information in order to be a decision support tool. Useful information is the intelligence needed by the decision makers of a company to develop and implement, in a rational manner, the strategy needed to the achievement of the objectives defined by the company in order to improve its position in its competitive environment. Beyond

the reduction of uncertainty, CI would aim above all to make sense and thus to allow a better understanding of the external environment.

Calof and Wright (2008) refer to a research linking competitive intelligence to strategic decision-making when it comes to “ *corporate or business strategy; sales or business development; market entry decisions; product development; R&D/technology decisions; M&A decisions; due diligence; joint venture decisions; and regulatory/legal responses.*.. This discloses that CI affects decision-making and is an important element in the design of business strategy.

According to Schoemaker, Day & Snyder (2013), weak signals make it possible to recognize micro-changes in the external environment; these are at the edge of what decision makers are focused on. By detecting weak signals, business intelligence supports intuition-based decision-making by contributing to knowledge gained from stimuli from the external environment and by nurturing the intuition and knowledge of decision-makers.

On another note, Gilad & Fuld (2016) conducted a survey on 236 CI providers and strategic analysts in large companies to measure CI usage. According to this study, only half of these companies use the information they collect to improve their decision-making.

Companies constantly grieve to guarantee that decision makers have timely and appropriate intelligence for making strategic decisions (Du Toit, 2015). Although, according to Pfeffer & Salancik (1978), decision-makers are not familiar with the vocabulary used by competitive intelligence providers, and in contrast, the relevance of information is assessed by those who provide it and not by decision makers themselves, who are unable to predict what information they will need to make a decision. Competitive intelligence helps reduce uncertainty and provides a meaning by better understanding the external environment, which would directly support decision-making.

« *Those who provide information collect what they believe to be important. [...] A decision maker may be unable to predict what information he needs or would use.* » (Pfeffer & Salancik 1978, 269)

Therefore, information sciences and management sciences studies have considered the CI support to decision-making when it comes to reducing uncertainty, detecting weak signals, and justifying decisions, and thereby support the decision-making process upstream and downstream.

## CONCLUSION

The focus of CI is to differentiate intelligence from information. According to the literature, companies with competitive intelligence culture transform information into intelligence, by adding two other tasks to the data acquisition-analysis and management-, which are of equal importance.

Most scholars define CI as a process helping the company catch opportunities and developments, as well as support its decision-making.

The processing of information lead to decision making which gives organizations a competitive advantage. As some authors stated earlier, more empirical surveys are necessary to assist competitive intelligence researchers in theory building, as existing theories may not cope with the evolution of competitive intelligence activities. Literature acclaims that competitive intelligence activities exist within organizations but it is still not given prominence.

The findings of this study showed that CI is used at several phases of the decision as a contribution to organizational decision-making by senior managers and executives, who consider that CI is most suitable to strategic planning activities.

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