Chapter 14
Competitive Intelligence and Technology Watch From Patent Information to Leverage Innovation

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ABSTRACT

Information is an indispensable resource for the functioning and survival of organizations. To compete in the global environment of rapid change, where currently they are located, information is needed to help them innovate and gain competitive advantages in the markets in which they operate. Patent information can provide an increasing competitiveness through the technology transfer that it motivates and proved to be very important economically by encouraging creativity and innovation. It is argued that coherent and effective consultation of the information resulting from research and development activities with industrial application, performing competitive intelligence, and technology watch can leverage innovation and generate competitive advantages in business. The goal of this competitive intelligence and technology watch is to stimulate creativity, leading to new product/process development and the consequent improvement of innovation rates with cost efficiency. Some examples of the use and application of this information resource in different types of industry are presented.

DOI: 10.4018/978-1-5225-3012-1.ch014

BACKGROUND

Competitive Intelligence (CI) is the use of public sources to develop information about the competition, consumers, and market environment (Miller & Business Intelligence Braintrust, 2002).

Competitive information is needed to clear decision-making about what products develop, for what customers, at what cost, through which distribution channels, reducing the uncertainty that a new product development always brings with it. CI tools allow the knowledge of competitor's moves and the analysis of trends from the communications exchanged in the networks of individual consumers, making it easy for companies to develop solutions according to their clients and prospects desires.

As an excellent information source, the Internet provides significant opportunities for CI (Sage, 2013). Internet search engines have been widely used to facilitate information search on the Internet (Gomes & Braga, 2001; Taborda & Ferreira, 2002). However, many problems minimize their effective use in CI research (Bedell, 2011; Kahaner, 1997).

Many major companies have formal and well-organized CI units that enable managers to make informed decisions about critical business matters such as investment, marketing, and strategic planning (Prescott & Miller, 2002).

Traditionally, CI relied upon published company reports and other printed information. In recent years, Internet has rapidly become an extremely good source of information about the competitive environment of companies (Hawthorne & Cromity, 2012; Ojala, 1989; Revelli, 2000; Sage, 2013).

Patent information, publicly available on the internet, free of cost, allow the knowledge of competitors' movements and their business strategy from the documents of their patent applications and patents granted. Several web sources like Espacenet from European Patent Office (EPO), United States Patent and Trademark Office (USPTO), PatentScope and several other databases from the World Intellectual Property Organization (WIPO), among others, allow the current awareness from competitors and new entrants in a company area of research and development (R&D).

Nowadays, these tools make it easy to retrieve primary information that, after filtered and analyzed, allows faster decision-making and competitive moves.

The goal of this work is to explain how to do it, which tools are available, and the type of data and information that can be collected and extracted from them.

We will start describing CI, and Patent Information, and conclude with a few ideas for analyzing patent web sites to identify competitive signals and trends.

Patent information is an important information resource that is freely available, which is easily accessible across different digital platforms based on the Internet, enabling a stimulus to creativity that can motivate new innovations (Maravilhas, 2009; Maravilhas & Borges, 2009).

Repositories of patent information, in the form of databases and digital libraries, are a major source of scientific and technical information[1]. There are about 90 million published patent documents worldwide, most of them containing information not available anywhere else (Bregonje, 2005; Greif, 1987; Marcovitch, 1983). Even the information that can also be found in other documents, such as scientific papers, technical reports, conference proceedings, and dissertations, it is not described with the same degree of detail and they take longer to reach the public.

In addition, approximately 2.2 million new documents are created every year (Mueller & Nyfeler, 2011, p. 384) and their publication allows public consultation even before protection is granted.

Over 30% of patents are in the public domain (they have reached the time limit for protection, or for non-payment of annual fees), or are not being exploited due to lack of funding or technical incapacity