

# Chapter 81

## When Competitive Intelligence Meets Geospatial Intelligence

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### ABSTRACT

*Given current economic uncertainties, organizations need to efficiently generate new knowledge and incorporate it into their products and services. In this regard, competitive intelligence provides such strategic knowledge to support the creation of competitive advantages. Part of the knowledge created by competitive intelligence concerns the geographical components forming the basis of geospatial analysis. This study sought to identify, among some 40 competitive analytical methods, those that may be enhanced by geospatial intelligence capabilities. To this end, the authors identified the key subject area of each competitive analytical method and the key spatial analysis operations with geospatial intelligence capability, and then they identified those with a strong potential for providing more strategic knowledge when used in combination. They provide various case scenarios to support their propositions. The results demonstrate that geospatial intelligence may leverage competitive intelligence by more efficiently highlighting business opportunities.*

### INTRODUCTION

In the current competitive environment it is becoming increasingly difficult for organizations to stand apart from their competitors, yet differentiation is one of the techniques used to build a competitive advantage (Nonaka, 1991). In an economic environment characterized by uncertainty, building a long-term competitive advantage is an arduous task. Indeed, the management of organizations is increasingly

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characterized by environmental uncertainties in which market volatility creates enormous pressures on companies to differentiate themselves from their competitors. In such a context, it is fundamental for organizations to make better use of their data to create unique knowledge that will form the basis of a competitive advantage.

Once an organization is better able to perceive the value of its data, it can build a competitive advantage by providing the leaders of its marketing, sales and finance departments with hard information to support their decision making (Nonaka, 1991). Competitive intelligence (CI) is the cognitive process of collecting information about competitors and the competitive environment, analyzing it, and using it in the decision making process (Fleisher & Bensoussan, 2007). In most organizations, CI is seen as an environmental scanning system that integrates the knowledge of all organizational members and encompasses marketing, structural, strategic and other organizational elements (Smith & Kossou, 2008). Many CI techniques (such as Linchpin Analysis, Country Risk Analysis, SERVQ Analysis, Shadowing, War Gaming, McKinsey 7s, etc.) could be usefully supplemented by geospatial analysis capabilities. Some organizations are moving in this direction.

For example, the food stamp program in the U.S. used spatial analysis tools in their fraud detection activities. They studied welfare recipients' consumer behaviors in a spatial framework, which helped them identify stores that attract an abnormal clientele, such as those traveling long distances and avoiding stores in their local area. This was used as an indication that these stores may be committing fraud (Schwartz, 2005). In this case, spatial tools enabled the food stamp program to improve and facilitate the analysis and representation of business information, which helped the agency significantly reduce fraudulent activities and protect this important social program.

Data can also be used to support new product financing, consolidate financial reports or produce better market analyses that form the basis of competitive analysis techniques. However, when working with massive quantities of data, it is not always easy to represent the data. For example, when examining a database that contains a list of customers, an organization may have difficulty quickly understanding where the customers come from or if they are located closer to the organization or its competitors. Geospatial intelligence (GI) requires the use of visualization tools such as geographical information systems specifically designed to address these issues (Turban, Sharda, Delen, King, & Aronson, 2011). Geographical information systems integrate business data with maps and provide context-specific visualization capabilities. For example, an organization may integrate information on their customers, competitors, suppliers and products taken from different source systems with geographical information such as address, street location and other territorial information to quickly determine the location of its potential markets, its closest suppliers or the customer segments with the greatest profit opportunities. This type of information is often quite significant when a business is preparing to move into a new market, open a new store or develop new offerings.

As these examples show, CI analysis may be leveraged through the use of GI tools. Some decision-making processes are naturally supported by spatial data analysis, such as the establishment of new branches or insurance companies' management of property risks. Despite these promising advances, competitive analysis techniques and geospatial analysis tools and methods may not yet be sufficiently integrated, preventing organizations from exploiting this strategic capability (Borthick, Bowen, & Gerard, 2008). In sum, there is a need to associate competitive analysis techniques with GI tools and identify those with a high potential for generating strategic knowledge. However, past research has not examined the potential synergistic effect of combining CI methods with GI in a competitive context. This gap provides an opportunity to make a potentially relevant contribution in this area.

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