A Comparative study of competitive intelligence in Public Sector
(Case study: Iran Auto Industries)

Sina Soltani Mollayaaghobi
Department Of Engineering, Arak Branch, Islamic Azad University, Arak, Iran

Fariba Badiiee
Department Of Engineering, Arak Branch, Islamic Azad University, Arak, Iran

Abstract
Technology improvements and cost reductions have allowed CIS (Competitive Intelligence System) to be extended to the entire set of organizational stakeholders to provide information for various forms of decision making. Despite these improvements, there is still a significant organizational investment and risk to implement and maintain CIS. Expectations and funding for CIS in auto industries are based on the desire for improved quality and competitive performance across all levels of the organization. In this study individual, organizational, system, information, and service characteristics are explored to measure the situation of variables. Moreover, we compare employee’s perception about corporation CI in Saipa and Iran khodro auto industries. Our results show that information and system quality characteristics also influence the level of learning. The model increases the explanatory power over the prior information support systems and learning models and adds important contributions to auto industries research and practice. Last but not least, there is a significant difference between two cases CI level.

Keywords: Competitive intelligence, public and private sector, Auto industries

Introduction
In today’s competitive business environment, it is generally recognized that organizations must adapt to their surroundings in order to survive and prosper. The speed and aggressiveness of competition has forced organizations to think beyond the traditional approach that focuses on the construction of competitive advantage to advance new initiatives that lead to the demolition of a competitors’ advantage (D’Aveni 1994; McNamara, Vaaler and Devers, 2003). As competition increases and technology evolves, firms are increasingly turning to competitive intelligence (hereafter, CI) to provide
insight into competitors’ strategies and customers’ needs. Sensing the advantages of CI, major multinational corporations, such as General Motors, Eastman Kodak, and British Petroleum, have either created formal CI units (Vedder, Vanecek, Guynes, and Cappel, 1999) or adopted structured processes for collecting and analyzing information on the external environment (Groom and David, 2001). Experts recommend that firms consider CI activities not only as a protective tool to guard against perceived threats and changes, but also as a mechanism for discovering new opportunities and trends (Pirttimäki, 2007). Over the years, a number of theoretical and empirical research studies have advanced conceptual models of CI and offered various perspectives on CI practices (e.g., Band 1982; Gordon, 1989; Attaway, 1998). Despite diversity in terms of approach and method, a common theme that emerges among previous studies is that employees play an important role in the CI process. In fact, Caudron (1994) suggested that up to 90% of the intelligence a company needs is possessed by its employees, who collect vast amounts of information as they interact with suppliers, customers, and other industry contacts. The theory surrounding CI draws on many disciplines including marketing, strategic management, military theory, and economics. However, Porter’s Competitive Strategy (1980) is arguably the seminal framework underlying much of the research examining how intelligence can be used for strategic decision making by firms. Since Porter’s foundational research, scholars have approached CI in a multitude of ways. However, two primary views have emerged from the literature:

1) The process approach adopted by strategy researchers.
2) The overall value of CI embraced by practitioners.

There are multiple approaches to CI in contemporary practice and scholarship. Coupled with this, there are many definitions of CI and numerous labels for CI, which have combined to yield a partitioned and fragmented literature. Gordon (1989), for instance, defined CI as collecting information about competitors to gain a competitive edge in the marketplace, whereas West (2001) described it as an organization’s commitment and ability to study competitors and to anticipate their actions. Prescott and Gibbons (1993, p. 8) offer a more intricate definition of CI, calling it a “formalized, yet continuously evolving process” and suggesting that it can help managers achieve and sustain competitive advantage through evaluating the ‘capabilities and behavior’ of existing and prospective competitors. Additionally, researchers have used many labels for CI. Moving beyond
the research which uses the term CI, there is another, perhaps broader stream of research which examines similar constructs including market(ing) information, competitive information, and market(ing) intelligence systems. Below, I provide a comprehensive overview of the different areas mentioned above. The relevant articles that address the role of the sales force in CI are discussed in detail.

Literature review

Before focusing on the elements of CI, one issue that is a necessary point of discussion concerns the differentiation between the related constructs of information, knowledge, and CI. Boisot (1999) documents that an amalgamation of risks and opportunities has created an environment where organizations are facing a knowledge-related paradox. He provides examples of organizations that have lost their ground to competitors despite having once had sufficient knowledge control. EMI, for example, innovated, produced and sold the CAT scanner for a period, but then lost its market over the course of two years and eventually sold off its scanner business to General Electric (Dell’Osso 1990). Similarly, Dell conquered the personal computer market in the USA, which had previously been dominated by IBM, a pioneer in personal computers. These examples reinforce the notion that merely possessing knowledge cannot guarantee a firm’s success. Along with knowledge, one needs CI because it helps firms and employee’s command a superior understanding of change in the market environment and enables them to identify current and future competitors and competitive actions.

Differentiating knowledge from information, Nonaka (1994) postulated that “information is a flow of messages, while knowledge is created and organized by the very flow of information, anchored on the commitment and beliefs of its holder (p. 15).” In another definition, Boisot (1999) defined information as “data that modifies the expectations or conditional readiness of an observer” (p. 20), and knowledge as a “set of expectations that an observer holds with respect to an event” (p. 20). These theoretical standpoints underscore the notion that the process of knowledge creation starts from information and ends at knowledge. Information becomes knowledge when assimilated into some useful form. This progression can be considered as a continuum where information and knowledge represent two ends, and CI resides in the middle given the fact that it is neither raw data nor an ultimate knowledge product.

Value of Competitive Intelligence Webster (1965) focused on the issue of information regarding competitors’ actions, and proposed that competitors’ information can affect
not only a firm’s competitive strategy, but also its marketing mix elements. He argued that “any marketing decision that does not take competitors’ behavior into account is likely to lead up to a blind alley” (p. 81). Championing Webster’s idea, Moss (1979) reported several case studies where highly diverse companies used competitors’ information collected by their own employee’s to formulate realistic future strategies and plans. Over the years, researchers continued to emphasize the importance of CI to firm strategy and survival, having referred to it as ‘a key to market place survival’ (Gordon 1982, p. 69); ‘a key element in the strategic management system’ (Bernhardt 1994, p. 12); and, ‘the key determinant of a strategy’ (Montgomery and Weinberg 1979, p. 41). Similarly, Rottenberger (1991) postulated that information about competitors’ pricing, quality, and service is vital for sales and marketing efforts. Referring to CI as commercial intelligence, Hershey (1980) documented the appropriateness of CI for small businesses in particular, providing suggestions about how small and moderate sized organizations can incorporate CI into their operations to get a competitive edge against larger organizations. Consequently, there appears to be widespread agreement throughout the literature regarding the value that CI holds for organizations. Building a Competitive Intelligence System. Another vein of inquiry in CI research focuses on the ways how organizations can develop and build an effective CI gathering system, and how an organization’s sales force can be a practical tool in this regard. Providing early insight into the topic, Montgomery and Weinberg (1979) focused on the selection, gathering, and analysis of information for developing a strategic intelligence system, and suggested that organizations should scan the external environment for potential competitors in order to inject quality in their strategic planning. Band (1982) advocated that organizations establish a regular reporting system to allow employees to monitor the actions of competitors. Similarly, Grabowski (1986) proposed that organizations establish central intelligence systems and suggested that all departments should act collectively to process and disseminate intelligence. Attaway (1998) reviewed the issues related to gathering and assessing CI, and suggested that organizations develop CI capabilities that enable managers to filter through “noise” and extract the appropriate and relevant information. A similar approach is evident under the category of marketing intelligence, which Kotler (2002) defines as keeping track of the marketing environment in order to get information valuable to organizations. Among this research, Maltz and Kohli (1996) examined the antecedents and consequences of disseminating market intelligence throughout an
organization, suggesting that dissemination frequency and formality have nonlinear effects on the perceived quality of intelligence. Recent research studies highlight the importance of the sales force in intelligence collection and dissemination for building an effective marketing intelligence system (LeBon and Merunka 2006; Meunier-FitzHugh and Piercy 2006). In a related vein, while defining market orientation, Kohli and Jaworski (1990) referred to marketing intelligence generation, its dissemination, and responsiveness to it as a process within a firm. Employees of the organization play an important role in it, yet its operationalization occurs at the firm level. As is evident from the above review, the research focused on developing a CI system has relied on a process-based view of CI, which focuses on the processes associated with gathering and disseminating competitive information. There is no doubt that such approach does have its merits; however, the collection and use of CI at salesperson level and its influence need to be explored.

Methodology, Approach & Findings
This research study utilizes qualitative and quantitative methods of analysis using a survey instrument and case study for primary data collection. Reliance on one method can create issues, for example qualitative research lacks rigid control, while quantitative methods may create pre-determined certainties. Many authors recommend both qualitative and quantitative methods to add context to research, offer an expanded view of the topics, and allow validation of findings through more than one methodology. The survey instrument analyzes the research model using formalized methodology, the case study includes interviews and system information and results. The survey includes a control group, which due to security and location restrictions, had access to the CIS only through a single shared computer. The primary study group had individual computer connectivity to the CIS for improved accessibility and information visibility. The qualitative and quantitative analysis results were triangulated to form discussion points and conclusion outputs. Our sample was selected among two main auto industries in Iran comprising 213 in Saipa group and 191 in Iran khodro. Our main questionnaire was developed based on a new model (Johns & Doren, 2010) that showed in figure 1. This questionnaire contain 4 main dimension: people you know, public information, straight to the source and personal experience which have 25 indicators as questionnaire indexes. A case study is also used to assist with development, testing, and explanation of the conceptual
model. Qualitative research methods to study CI phenomena is growing, with case study research as an accepted method in the CI field.

Figure 1: Research Model. Source: (Johns & Doren, 2010)
Table 1: Perception in two cases

<table>
<thead>
<tr>
<th>SIG</th>
<th>FD</th>
<th>T Statistics</th>
<th>Comparative analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Level of %95</td>
<td>Standard error</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High level</td>
<td>Bottom level</td>
</tr>
<tr>
<td>.000</td>
<td>222</td>
<td>-23.190</td>
<td>-1.37458</td>
</tr>
<tr>
<td>.000</td>
<td>222</td>
<td>-24.441</td>
<td>-1.75216</td>
</tr>
<tr>
<td>.000</td>
<td>278</td>
<td>-19.601</td>
<td>-1.25102</td>
</tr>
<tr>
<td>.000</td>
<td>388</td>
<td>-25.999</td>
<td>-1.30696</td>
</tr>
</tbody>
</table>

Table 2: Gap analysis

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Saipa Group</th>
<th>Iran Khodro</th>
</tr>
</thead>
<tbody>
<tr>
<td>people you know</td>
<td>0.6</td>
<td>0.21</td>
</tr>
<tr>
<td>public information</td>
<td>1.24</td>
<td>0.04</td>
</tr>
<tr>
<td>straight to the source</td>
<td>1.31</td>
<td>0.15</td>
</tr>
<tr>
<td>personal experience</td>
<td>1.51</td>
<td>0.25</td>
</tr>
</tbody>
</table>
Discussion & Conclusion

It appears straightforward that CI is important in generating high levels of performance, yet it is often difficult to identify the specific factors that contribute to the development of CI. Thus, the influential role of coaching should be taken into consideration. Managers should coach employee’s, as employee’s may not be able to or know how to utilize CI properly. The findings are in line with the notion that employee’s can be the victim of “imperial intelligence,” that is, the situation in which intelligence becomes the overriding factor in decision-making (Shulsky, 1993). With proper coaching from managers, employee’s will be able to find an adequate balance with respect to how much decision-making should be based on CI and how much should be based on sound judgment. Thus, employee’s should better understand the needs and
requirements to make a winning pitch, and thus, they should know what information is important and relevant. Today’s customers are increasingly demanding; they want to know how certain products or services differ from others, and they question why a particular product or service should be chosen over the competition. Without having up-to-date competitor information, employee’s will find it difficult to provide satisfying answers to such demanding customer inquiries. Being equipped with competitor information provides employee’s with advantages as they attempt to effectively convince customers to buy their products; they will also perform better in comparison with those employee’s who lack such information. Employee’s who have sound market and competitive information will tend to be regarded as competent and be able to fill the needs of their customers. Ideally, a sales manager should attempt to remove any role ambiguity or role conflict from a salesperson’s work profile in order to enhance CI acquisition and utilization.
References