Review of Competitive Intelligence & Competitive Advantage in the Industrial Estates Companies in the Kerman City:

Appraisal and Testing of Model by Amos Graphics

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Abstract: The purpose of this paper is to assess the impact of competitive intelligence on the competitive advantage of corporate organizations. While much empirical works have centered on competitive advantage, the generalization of its relationship to competitive intelligence in the Iran context has been under researched. A 32-item survey questionnaire to measure competitive intelligence and competitive advantage was developed and corporates in Iran are selected from industrial estates companies in the kerman city as a sample for this study. For analysis data used of the SPSS 16 and appraisal of model by Amos graphics 18. The results of the study reported in this paper validated and finds strong association between competitive intelligence and competitive advantage of corporate organizations in the Iran context. The main finding of this study is that competitive intelligence lead to competitive advantage in corporate organizations in Iran. The implications of the results of this study are clear for scholars and managers.

Key words: Competitive intelligence; Competitive advantage

1. INTRODUCTION

Unlike mental or cognitive and emotional intelligence, competitive intelligence focuses on monitoring the competitive environment with the aim of providing actionable intelligence that will provide a competitive edge to the organization. Competitive intelligence is a very important tool of an organization strategic planning and management process. The formal exploration process of the marketing strategy paradigm has been linked with the environmental scanning interactive as a basis for gathering and processing the information and the information processing theory paradigm (Ahiauzu Al, 2006).

Competitive intelligence on the other hand, pulls together data and information from a very large and strategic view, allowing a company to predict or forecast what is going to happen in its competitive environment (Brooksbank R, Taylor D, 2002). It allows company to pro-actively rather than reactivity...
anticipates market development and remains competitive by improving its strategic decisions which leads to good competitive advantage.

Competitive advantage simply defines how companies go to market with the goal of optimizing their market spend to achieve even better results for both short-term and long-term objectives. In the study reported in this paper, we examined the influence of competitive intelligence on competitive advantage of a corporate organization; we adopted the Fahey’s (2007) marketing intelligence model as our predictor variables and Kotler (1997) as cited by Spanos & Liouka (2001) competitive advantage model as our criterion variable. We shall in this paper, described Fahey’s (2007) competitive intelligence model and the concept of competitive advantage.

We shall describe how the empirical study was undertaken; present the research results and findings as well as the discussion of the findings. The conclusions and the recommendations are stated finally. The next section of the paper examines the origin and development of the competitive Intelligence, the major fundamental elements and issues that embody the concept, and it’s interaction with organizations’ competitive advantage.

1.1 Background and Hypotheses

Competitive intelligence

Competitive intelligence, as a distinct field, started as a specialized activity nested under marketing research known as “marketing intelligence” (Walle, 1999). Wright et al. (2002) have distinguished competitor intelligence from competitive intelligence. According to them, competitor intelligence is defined as those activities by which company determines and understands its competitors, determines and understands their strength and weaknesses, and anticipates their moves. They believe that the underpinning words are identified/determined, understand and anticipate industry and competitors but this according to them only defines competitor intelligence. Competitive intelligence on the other hand extends the role to include consideration of competitor responses to consumer/customer needs and perceptions and one’s own responses in the strategic decision-making process.

The implications of this review is that competitive intelligence is wider in scope than the competitor intelligence. Wright et al. (2002) cited Lauginie et al. (1994) in their descriptive and succinct distinction. Competitor intelligence is not competitive intelligence but only a part of it. The focus of competitor intelligence tends to be on problems associated with the daily profitable marketing of a company’s products or services.

The scope of competitive intelligence is a value-added concept that associates competitor intelligence and strategic planning. Some activities concerning competitive intelligence could be traced back to the biblical creation of the universe. In Genesis, God created the universe after His Spirit had moved upon the surface of the earth which was without form and void. The earth was created through the intelligence of satisfying the unsatisfied needs of the void earth. A clear case of competitive intelligence actually began in the Garden of Eden. Man was given all the pleasures and good foods, in the garden to eat freely but was forbidden from eating the fruit of life. Through competitive intelligence, they were able to discover what man could do to disobey God and man was made to eat the forbidden fruits. Also, Judas Iscariot was bribed into revealing Christ’s Location (Walle, 1999).

In Jesus Christ over to a mob that was armed with swords and clubs. Judas had given them a prearranged signal: “you will know which one to arrest when I go over and give him the kiss of greeting” (verse 48). Verse 49 recorded that Judas Iscariot went straight to Jesus, greeted him and kissed him. You notice that Judas Iscariot exhibited a high level of intelligence to be able to let the mob know which among the twelve (Jesus and the other eleven disciples) was Jesus Christ. This could be used to trace the importance of competitive intelligence. Though, the techniques of intelligence were not systemized and the people who performed this sort of work were not a distinctive group with unique methods and traditions. Competitive intelligence emerged as a distinct discipline in its own right in recent time. The theoretical account of the development of competitive intelligence has been recorded (Walle, 1999; Wright et al., 2002; Viviers et al., 2005).
In his work, Walle (1999) believed that the work of William T. Kelley can be used to suggest the origins of competitive intelligence as a distinct entity. Walle argues that Kelley’s book marketing intelligence (1965), introduced the field of intelligence, while his influential article in the journal of marketing (Kelley, 1968) provides a short and readable account which was easily available to management of marketing. Kelley’s seminal work was quickly followed up with Richard L. Pinkerton’s influential five article series (Walle, 1999) in industrial marketing titled “How to develop a marketing intelligence system” Walle further argues that these documents can be seen as representatives of pioneering intellectual foundations of the field.

The next phase in the evolution of competitive intelligence as recorded by Walle (1999) seems to be the second stage of competitive intelligence as recorded in Vivier et al. (2005). These centers on the work of Michael E. Porter. Porter’s (1980) well-known work on strategic management and competitive analysis which focused on tracking specific competitor behavior and linking competitor analysis to competitive strategy, created the background for the development of competitive intelligence as a business discipline (Peyrot et al., 2002) as cited in Viviers et al. (2005).

In 1980 and 1990s, practitioners while continuing to focus on how decision makers can use business intelligence in strategic ways, have begun to concentrate more and more upon the techniques of the field (Walle, 1999). Viviers et al. (2005) argue that competitive intelligence is synonymous with business intelligence, but it is believed that competitive intelligence implies true purpose of intelligence that is to gain strategic advantage. They identify the basic key factors of competitive intelligence to include competitor intelligence as well as intelligence collected in customers, suppliers, technologies, environments, or potential business relationship. Nwokah and Maclayton (2006) identify these factors as the moderating variables in the relationship between customer-focus and business performance.

Walle (1999) noted that the work of Leonard Fuld, Afr. J. Mark. manage is the most representative of the current state of the competitive intelligence. Fuld’s (1985) definitive work is his competitive intelligence. Walle further argues that as the years went on, Fuld has emerged as a keystone figure, not merely because of his writing but also because he is the founder of a major consulting firm dedicated to competitive intelligence, which provides training, performs consulting services that are tailored to the needs of specific clients and Fuld’s organization has a web site which provides a wide range of information and device.

In their own work, Wright et al. (2002) have outlined chronologic breakdown of relevant competitive intelligence articles. Though, none of these articles tested the relationship of competitive intelligence and performance measure or competitive advantage, Wright et al., (2002) outlined a total of 359 articles published on competitive intelligence from 1984 to 2006.

1.2 Strategic Inputs of Competitive Intelligence

Fahey (2007) has outlined five strategic inputs an intelligence researcher needs to focus on. These are market place opportunities, competitor threats, competitive risks, key vulnerabilities and live assumptions. He argues that each type of intelligence input requires considerable judgment and value-added on the part of intelligence professionals.

1.3 Market Place Opportunities

A marketplace opportunity is a strategy which is concerned with creating and realizing a new market place opportunities. Opportunities define new ways of creating and developing value for customers: new products or solutions; extending existing product lines, reconfiguring existing solutions. Fahey (2007) noted that the executive team continuously addresses two types of new marketing opportunities:

1) Extending current opportunities. How can we extend opportunities that are the focus of our current strategy?

2) Potential market place opportunities. What opportunities beyond the reach of our current strategy should we be considering? What opportunities may be lurking but not yet fully evident in market place change?

In extending current opportunities, Fahey (2007) believes that short-term opportunities often centre on identifying ways to modify the current strategy to add value for customers. Highlighting how intelligence created assessments leading to new opportunities to extend and leverage the current strategy using three
industries as examples, the Fahey notes that two key exchanges must occur between strategy and intelligence professionals: First, the executive team must “challenge” the intelligence team to identify and develop the contours of new opportunities. Second, the intelligence team must demonstrate that it is fully committed to learning about the firm’s strategy. The current strategy provides the framework for identifying and shaping the extension of current opportunities. The second strategy input of Fahey (2007) is the potential marketplace opportunities. The author argues that the executive team also needs to develop strategy where possible, will be a winner tomorrow’s strategy. He believes that the charge for intelligence is to help identify the marketplace opportunities that will be focus of tomorrow’s strategy. Fahey outlined some examples of how intelligence teams in a number of firms assess current and projected change to alert executives to emerging potential marketplace opportunities.

1) Follow regulatory developments as a means to project the emergence or demise of specific regulations that open up access to new markets and/or allow the sale of specific products.
2) Track and project research and development progress in specific research domains as one input to identify potential new product breakthroughs at some point in the future.
3) Conduct patent analysis to identify patterns in the transition from research technology developments likely to lead to new products or significant product modifications.
4) Use of projections competitor’s strategy to identify potential new products and thus emerge customer needs.
5) Use projections of technology developments in related product areas to identify new products or solutions that could be in the market place in two or more years.

1.4 Competitor Threats

In competitor threats, the author noted that opportunities would be so much easier to realize were it not for the presence of current and potential competitors. He defines competitor’s threats as ways that a rival can inhibit a company’s strategy from succeeding in the marketplace. If threats are detected too late, resources tied up in supporting a strategy may be substantially waste, if threats are detected long before coming to full friction, strategy can be adapted to eliminate, ameliorate or avoid the threat. The author believes that executive should pose the following three questions:

1) How might competitors most adversely affect our current strategy?
2) Which competitors are most likely to do so?
3) How might we best “handle” these threats?

Fahey argues that intelligence thus must assess current and potential competitor change for its strategy implications for threats. The executive team must be alerted to current or potential competitor threats.

1.5 Competitor Risks

In competitive risks, the author argues that strategy is played over time in a marketplace or competitive context that extends well beyond competitors. Change in and around the market place (being driven by customers, channels, suppliers, governmental agencies, technology houses, political parties, etc.) is the source not only of marketing opportunities and competitor threats but of competitive risks. He explained competitive risks to include any marketplace change that could negatively impact the firm’s current or potential strategy. He advised that an executive team therefore should always pose the following three questions to its intelligence team.

1) What competitive risks does our strategy face?
2) What competitive risks might we face in the future?
3) How can we best manage these risks? Tailoring response to these broad questions compels the intelligence team to look beyond competitive trends, patterns and discontinuities to isolate and assess risks and demonstrate how they negatively impact the pursuit of specific opportunities.
1.6 Key Vulnerabilities and Assumptions

Discussing on the issues of vulnerabilities, Fahey argues that assessment involves confronting the question: To what is our strategy (or potential strategy) most vulnerable? Or, as stated in some firms: What is it that could most critically affect our strategy and that we can least control? Such assessment forces both intelligence professionals and executives to go beyond merely listing competitor threats, competitor risks and key assumptions. It compels analysis and ranking of current and potential threats and risks to identifying those that could most severely impede a strategy’s success.

Based on the foregoing, we deduce that competitive intelligence requires a complete view of competitors. But how does the emphasis on this competitive intelligence influence competitive advantage. First let us now briefly examine the construct of competitive advantage.

Competitive advantage

Innovation differentiation strategies combine learning and innovation. That is, whereas learning occurs through research and development, innovation uses that learning to produce groundbreaking products and processes that differ from those of the competition, and innovation differentiation strategies enable firms to reinvent themselves and stay ahead of the competition constantly by penetrating existing markets or expanding into new markets. Thus, innovation differentiation strategies effectively contribute to growth in terms of firm performance.

Companies such as 3M, Apple, and The Sharper Image provide excellent examples of firms that engage in innovation differentiation strategies. However, because innovation can put a strain on operational efficiency and adversely affect cost management, innovation differentiation strategies likely do not relate to the efficiency metric of firm performance.

1.7 Generic Competitive Advantages

Building on Ghemawat’s (1986) treatment of the basis of sustainable advantage and relevant literature in strategy, Ma (1999) categorizes three generic types of competitive advantage: ownership-based, access-based, or proficiency-based. That is, a firm can achieve competitive advantage through ownership or possession of certain valuable assets, factors, or attributes, e.g. strong market position (Porter, 1980), unique resource endowment (Barney, 1991), or reputation (Hall, 1992). It could also achieve competitive advantage in the form of superior access to factor market and product market (Barney, 1986a; Lieberman and Montgomery, 1988), e.g. exclusive relationship with supplier or distribution channel. Moreover, a firm could enjoy competitive advantage through its own superior knowledge, competence, or capabilities in conducting and managing its business processes (Nonaka, 1991; Prahalad and Hamel, 1990; Teece et al., 1997; Winter, 1987) – producing quality products at lower costs and delivering the right products and/or service to its customers in the right place at the right price and time through the right channels.

The evolution of the competitive advantage is a function of the way the firm organizes and manages the activities. The functioning of an enterprise may be divided into various activities: Solicitation of the customers by the sellers, maintenance, conception, realization of new products by the R&D department. Each of these activities creates value to the customers. Then, the final value created is sized by the price the customers accept to pay to get the product or the service. The enterprise is profitable if this value is greater than the global cost. To get a competitive advantage against its competitors, the firm should supply its customers with the same value than the competitors and be more efficient in the production (domination by the cost), or elaborate specific activities that generate a greatest final value and authorize higher purchase prices (differentiation) (D. Passemard and Brian H. Kleiner, 2000).

Marketing differentiation, unlike innovation differentiation, does not try to create a unique position in the minds of customers on the basis of unique product features but rather works to deliver greater exchange value through branding, advertising, sales force, and other unique marketing techniques. In this respect, marketing differentiation refers to the market sensing and customer-linking capabilities that firms use to connect customers to the firm (Day, 1994).

Marketing differentiation therefore should fuel growth in new markets and contribute to sales growth and market share growth. For example, Starbucks increased its sales growth and market share by expanding its
distribution channels (e.g., Internet, grocery stores) to offer greater accessibility to customers who otherwise would not have purchased its coffee. Marketing differentiation strategies also contribute to operational efficiency. For example, marketing practices such as database marketing and customer relationship management contribute to more precise customer targeting and enable the firm to improve its efficiency.

Cao and Gruca (2005) show that firms can reduce their adverse selection rates through appropriate customer relationship management practices, which enhance their cost savings. Firms also invest in innovative marketing techniques, such as advanced marketing research tools, that enable them to reach customers more efficiently with superior results. In short, a positional advantage acquired through marketing differentiation strategies drives not only effective firm performance in terms of various growth metrics but also higher returns on investments, which improves firm efficiency.

A cost-leadership strategy, firms focus on reducing costs through operational efficiency. For example, they might exploit existing facilities and learn how to reduce costs through automation, modernization, capacity utilization, or economies of scale. Efficiency, control, planning, and variance reduction represent the key elements of a cost leadership strategy, and a typical example of a cost-leadership strategy involves the implementation of an experience curve, on which cumulative production determines reductions in unit production costs. Firms engage in economies of scale and economies of scope when they apply their knowledge and facilities from existing product lines to product line extensions. To this end, Rust et al. (2002) argue that a cost emphasis pertains to standardization and operational efficiency, because the focus is on cost maintenance and reduction, cost leadership should not contribute to growth but rather should underscore streamlined operations that reduce “fat” in business practices.

The competitive advantage is born as soon as a firm discovers a new or a more efficient way to come into the industry and put the discovery in concrete form, than its competitors: That is to say, as soon as it innovates. However, the word innovation should be understood in its largest meaning. Defining the source of innovation is equivalent to describing the ways to create competitive advantages. It is in fact possible to distinguish five main sources of innovation:

* The new technologies;
* The modification of the demand or a new demand;
* The occurrence of a new segment;
* The changes in the costs or the availability of means of production;
* The changes in the regulation.

As a matter of fact, the creation of a competitive advantage is a tough task, but preserving it is much harder. The preservation of a competitive advantage depends on three conditions. One depends on the sources of the advantage: There is a hierarchy among the advantages, which can be minor (costs reduction of the work force), or major (possession of a special technology whose obtaining requires a higher skill level. The second determining factor is the number of sources of competitive advantage (the more, the better). The third factor of preservation is related to the continuous effort of modernizing and perfecting: every advantage is virtually susceptible of being copied. Then the preservation of the competitive advantage requires the firm to adopt an anti natural behavior consisting of keeping changing their strategies (naturally no one would change a winning team).

Simply put, to achieve any advantage in business, a firm has to look deeply and systematically into what it has, what it knows and does, and what it can get. The three types of generic competitive advantages are not only important for a firm’s superior performance in general but are also important for its success in global competition in particular. Winning in global competition, more than ever, requires a firm to establish a defensible position (Porter, 1990) and sustain its ownership based competitive advantage, e.g. the global brand reputation of Cartier; to create and improve access to foreign suppliers and distribution channels as well as access to the state-of-the-art or the best of the breed technologies (Chandler, 2001); and to excel in the learning race (Hamel et al., 1989) and nurture core competence and skills that can be leveraged in the global market place (Prahalad and Hamel, 1990; Prahalad and Lieberthal, 2003).
Research hypotheses

H1: Marketplace opportunities influences competitive advantage.
H2: Competitor threats influences competitive advantage
H3: Competitor risks influences competitive advantage.
H4: Key Vulnerabilities influences competitive advantage.
H5: Core assumptions influences competitive advantage.
H6: competitive intelligence influences competitive advantage.

The next section describes the empirical study which includes the methods of data collection and operationalisation of variables. The section shows that data were collected from primary and secondary sources. Primary data were collected through the use of questionnaire from key informants. The results of the analysis of data are also presented.

2. THE EMPIRICAL STUDY

2.1 Research Methodology

Two extreme points of view can be identified in research methodology namely; quantitative and qualitative (Burrell and Morgan, 1979; Nwokah, 2006, 2008). Those who take the first approach argue that there is a similarity between social and natural phenomena and similar methods can be used to study both phenomena. They favor the positivistic quantitative methodology in social science research. Those who take the second approach believe that social and natural phenomena are different. According to them, a positivistic quantitative approach is inappropriate for studying social phenomena. They favor a humanistic, subjective or qualitative approach. Due to the nature of this study, we adopted mainly the quantitative paradigm.

2.2 Sample Selection

A sample frame was compiled from the industrial estates companies of kerman city in the Iran. In total, 100 managers of companies in the industrial estates were asked but we obtain 80 questionnaires . To obtain reliable information for this study, the key informant approach was used. Therefore, two key informants in each of the corporate organizations among the sample size constituted the respondents.
2.3 Construction of Research Instruments

The research instruments were designed using measures from the extant literature. Two sets of instruments were designed to test the two constructs. To measure competitive intelligence, a 21-item questionnaire contain five domains developed by Fahey (2007) and for competitive advantage, a 11-item questionnaire had earlier been proposed by Spanos & Liouka (2001) three domains of competitive advantage. five-point Likert scale anchored by “1” strongly disagree to “5” strongly agree was developed to measure competitive intelligence and competitive advantage.

Demographics of companies and employees that in the study participant, show in the table1&2.

### Table 1: Demographics of Company

<table>
<thead>
<tr>
<th>Demographics of company</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td></td>
<td></td>
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<tr>
<td>Less than 10</td>
<td>10</td>
<td>12.5%</td>
</tr>
<tr>
<td>10-49</td>
<td>42</td>
<td>52.5%</td>
</tr>
<tr>
<td>50-99</td>
<td>8</td>
<td>10.0%</td>
</tr>
<tr>
<td>100-199</td>
<td>11</td>
<td>13.8%</td>
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<tr>
<td>200-499</td>
<td>9</td>
<td>11.2%</td>
</tr>
<tr>
<td>Metal</td>
<td>13</td>
<td>16.2%</td>
</tr>
<tr>
<td>Electronic</td>
<td>11</td>
<td>13.8%</td>
</tr>
<tr>
<td>Food</td>
<td>22</td>
<td>27.5%</td>
</tr>
<tr>
<td>Industrial</td>
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<td></td>
</tr>
<tr>
<td>Non metal</td>
<td>5</td>
<td>6.2%</td>
</tr>
<tr>
<td>Loom</td>
<td>4</td>
<td>5.0%</td>
</tr>
<tr>
<td>Chemical</td>
<td>19</td>
<td>23.8%</td>
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<tr>
<td>Cellulose</td>
<td>6</td>
<td>7.5%</td>
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<tr>
<td>Native</td>
<td>73</td>
<td>91.2%</td>
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<tr>
<td>Native</td>
<td>7</td>
<td>8.8%</td>
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<tr>
<td>0 - 7</td>
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<tr>
<td>Age</td>
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<td></td>
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<tr>
<td>7 - 14</td>
<td>20</td>
<td>25%</td>
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<tr>
<td>15 - 24</td>
<td>14</td>
<td>17.5%</td>
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<tr>
<td>25 - 34</td>
<td>3</td>
<td>3.8%</td>
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### Table 2: Demographics of Employee

<table>
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<tbody>
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<td></td>
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</tr>
<tr>
<td>25-35</td>
<td>32</td>
<td>40%</td>
</tr>
<tr>
<td>36-45</td>
<td>36</td>
<td>45%</td>
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<td>46-55</td>
<td>6</td>
<td>7.5%</td>
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<td>55 &amp; more</td>
<td>6</td>
<td>7.5%</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>32.5%</td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>67.5%</td>
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<td>Education</td>
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</tr>
<tr>
<td>Less of r diploma</td>
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<td>6.3%</td>
</tr>
<tr>
<td>diploma</td>
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<td>16.2%</td>
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<tr>
<td>Bachelor degree</td>
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<td>67.5%</td>
</tr>
<tr>
<td>master</td>
<td>8</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

2.4 Validity and Reliability of Research Instrument and Measurement Scales

The validity of an instrument refers to the extent to which it measures what it was intended to measure. The validity of the scales utilized in this study was assessed for content and construct (convergent) validity. A measure can be said to possess content validity if there is general agreement among the subject and researchers that constituent items cover all aspects of the variables being measured (Nwokah and Maclayton, 2006). Content validity was enhanced via the conventional process for measure development.

The competitive Intelligence and competitive advantage scales were tested for construct (convergent) validity. A measure can be said to have construct validity if it measures the theoretical construct or trait that it was designed to measure. The correlation among the component of competitive Intelligence and the correlation among the components of the competitive advantage may provide evidence of convergent validity.
to the extent that they are high; that is, they are converging on a common underlying construct. After the
survey had been completed the reliability of the scales was further examined by computing their coefficient
alpha (Cronbach Alpha). All scales were found to exceed a minimum threshold of 0.7 as used in previous
studies (Nwokah and Maclayton, 2006). Convergent validity is also suggested when the individual variable
scores are combined into a single scale to give a Cronbach alpha of 0.7982. The actual results of the scale
reliability analysis are reported in Table 3.

Table 3: Measures: Scale Statistics

<table>
<thead>
<tr>
<th>Scale items</th>
<th>S.D</th>
<th>Cronbach Alpha</th>
<th>mean</th>
<th>T value</th>
<th>Sig</th>
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<tbody>
<tr>
<td>Competitive Intelligence</td>
<td>.46</td>
<td>.788</td>
<td>3.37</td>
<td>-6.74</td>
<td>.000</td>
</tr>
<tr>
<td>Marketplace Opportunities</td>
<td>.66</td>
<td>.771</td>
<td>3.57</td>
<td>-9.78</td>
<td>.000</td>
</tr>
<tr>
<td>Competitor Threats</td>
<td>.558</td>
<td>.701</td>
<td>3.34</td>
<td>-4.02</td>
<td>.000</td>
</tr>
<tr>
<td>Competitor Risks</td>
<td>.533</td>
<td>.73</td>
<td>3.41</td>
<td>-3.14</td>
<td>.002</td>
</tr>
<tr>
<td>Key Vulnerabilities</td>
<td>.61</td>
<td>.791</td>
<td>2.99</td>
<td>-4.80</td>
<td>.000</td>
</tr>
<tr>
<td>Core Assumptions</td>
<td>.60</td>
<td>.742</td>
<td>3.54</td>
<td>-2.24</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Competitive advantage</strong></td>
<td>.68</td>
<td>.921</td>
<td>3.14</td>
<td>-11.2</td>
<td>.000</td>
</tr>
<tr>
<td>Innovation differentiation</td>
<td>.78</td>
<td>.825</td>
<td>3.11</td>
<td>-2.1</td>
<td>.02</td>
</tr>
<tr>
<td>Marketing differentiation</td>
<td>.73</td>
<td>.833</td>
<td>3.1</td>
<td>-6.2</td>
<td>.000</td>
</tr>
<tr>
<td>Cost-leadership</td>
<td>.82</td>
<td>.875</td>
<td>3.24</td>
<td>-9.2</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 4: Correlation is Significant at the 0.01 Level (2-tailed)

<table>
<thead>
<tr>
<th>Correlation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tr>
<td>Marketplace Opportunities</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitor Threats</td>
<td>.53</td>
<td>1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Competitor Risks</td>
<td>.23</td>
<td>.39</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Key Vulnerabilities</td>
<td>.31</td>
<td>.44</td>
<td>.50</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>Core Assumptions</td>
<td>.30</td>
<td>.32</td>
<td>.45</td>
<td>.40</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive Intelligence</td>
<td>.79</td>
<td>.80</td>
<td>.62</td>
<td>.28</td>
<td>.37</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Competitive Advantage</td>
<td>.277</td>
<td>.375</td>
<td>.376</td>
<td>.288</td>
<td>.431</td>
<td>.538</td>
<td>1</td>
</tr>
</tbody>
</table>

Appraisal & Testing of Default model by Amos Graphic: 2-stage approach
1-Appraisal & Testing of Measurement models
1-1 Measurement model of competitive intelligence & competitive advantage

Figure 2: Measurement Model of Competitive Advantage
2- Appraisal & Testing of Default model
Results of appraisal and testing model by Amos graphics represented in the table 3&4. results show that Default model is approval, all scales of indicators: RFI should be between 0 &1, its better to near 1. the NFT must least be 0.90, the scale of PNFT must upper than 0.50 & 0.60, PCFI must be least 0.50, the scale of AIC & NCP , better if be fewer. RMSEA  must be upper than of 0.05, DF must be 0 or positive, CMIN/DF must be between 1&5.

Results of model fit in the Amos Graphics show in the table 4 that is approval (unapproval) measurement models (competitive intelligence, competitive advantage). to notice the range of indicators, can conclude that measurement models approved through Amos graphic.

Table 5: Results of Measurements Models

<table>
<thead>
<tr>
<th>Approval (*)</th>
<th>Un approval(-)</th>
<th>Acceptable range for indicator</th>
<th>Competitive intelligence</th>
<th>competitive advantage</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Number of parameter</td>
<td>15</td>
<td>9</td>
<td>NPAR</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>must be 0 or positive</td>
<td>5</td>
<td>0</td>
<td>DF</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>the fewer the better</td>
<td>8.56</td>
<td>0</td>
<td>Chi</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>the fewer the better</td>
<td>0</td>
<td>-</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Between 0&amp; 1, upper than 0.90</td>
<td>0.92</td>
<td>1</td>
<td>CFI</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>must be least 0.50</td>
<td>0.101</td>
<td>0.04</td>
<td>PCFI</td>
<td></td>
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<tr>
<td>*</td>
<td>must be minimum</td>
<td>0.02</td>
<td>000</td>
<td>RMSEA</td>
<td></td>
</tr>
</tbody>
</table>

Results of model fit in the Amos Graphics show in the table 4, that is approval (un approval) total model. to notice the range of indicators, can conclude that Default model approved through Amos graphic.

Table 6: Results of Testing the Default Model

<table>
<thead>
<tr>
<th>Approval (*)</th>
<th>Un approval(-)</th>
<th>Acceptable range for indicator</th>
<th>Default model</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>between 0 &amp;1</td>
<td>.74</td>
<td>RFI</td>
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<td>*</td>
<td>Must be least 0.90</td>
<td>.905</td>
<td>NFI</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Must be upper than 0.50 &amp; 0.60</td>
<td>.62</td>
<td>PNFI</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>must be least 0.50</td>
<td>.502</td>
<td>PCFI</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>the fewer the better</td>
<td>14.25</td>
<td>AIC</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>must be upper than of 0.05</td>
<td>.065</td>
<td>RMSEA</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>the fewer the better</td>
<td>16.68</td>
<td>NCP</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>must be 0 or positive</td>
<td>13</td>
<td>DF</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>the fewer the better</td>
<td>43.862</td>
<td>CMIN</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>between 1&amp;5</td>
<td>3.45</td>
<td>CMIN/DF</td>
<td></td>
</tr>
</tbody>
</table>
2.5 Data Collection and Analysis

A survey questionnaire was developed for this study to measure the study constructs. Given the nature of this study as regards data generation requirements, it was considered that responses should be elicited from sources knowledgeable in the organization’s competitive Intelligence and marketing activities so as to limit measurement error (Bowman and Abrosin, 1997). In this regard, intelligence staff and head of marketing in each sample organization were treated as the key informants. With the key informants approach; data were collected from an intelligence staff on issues relating to marketing intelligence, and a marketing manager on issues relating to competitive advantage. Therefore in the 2 stage 100 questionnaires were distributed. It was assumed that such managers have the best advantage point to provide the most accurate responses. A total of 80 copies of questionnaire were returned.

To analyse our data, SPSS for windows version 16.0 was used, raw data were put into the spreadsheet of the SPSS and were later transformed to obtain the sum of the values of competitive intelligence and competitive advantage.

3. RESEARCH RESULTS AND FINDINGS

3.1 Scale Construction

Competitive intelligence: The descriptive findings of the Competitive Intelligence are reported in Table 3. It can be observed that the mean scores range from 3.37 to 3.99 with a reasonable dispersion about this measure of central tendency. It was found that the Cronbach Alpha coefficient for market place opportunities is 0.771, competitor threat is 0.703, competitive risks is 0.73, core assumption is 0.791 and vulnerabilities is 0.742. mean scores range for competitive advantage from 3.33 to 3.991 with a reasonable dispersion about this measure of central tendency. Cronbach alpha coefficient for Innovation differentiation is 0.825, Marketing differentiation is 0.833, cost-leadership is 0.875 and for competitive advantage is 0.924. Also, item total scale correlation analyses calculated all variables to be positive and highly statistically significant in their relationship with competitive advantage index.

Also item total scale correlation analyses calculated all variables to be positive and highly statistically significant in their relationship with competitive intelligence index. competitive advantage: Factor Analysis was conducted in this section to determine the dimensionality of competitive advantage measurement scales and item purification. Principal analysis with varimax rotation was carried out to identify a set of underlying dimensions of the construct using factor loadings greater than 0.5 and Cronbach’s alpha greater than 0.6 as the cut off criteria. The scales used to capture dimensions of organization’s competitive advantage are displayed in Table 4. It indicates that there are three factors to measure competitive advantage, as previously conceptualized by Spanos & Liouka (2001). Principal components analysis was used to assess the underlying relationship of each dimension within competitive advantage. Table 3&4 illustrates that in all cases; a single factor was extracted, suggesting the homogeneity within each factor. The dimension most emphasized by organizations in their overall competitive advantage appears to be customer philosophy.

3.2 Review Hypothesis

Marketplace opportunities influences competitive advantage

Table 3&4 shows of the significant and positive associations between Marketplace opportunities and competitive advantage. These results provide strong support for H1.

Competitor threats influences competitive advantage

The findings on Table 3&4 indicate a significant and positive association between Competitor threats and competitive advantage. These results again provide support for H2.

Competitor risks influences competitive advantage

The findings on Table 3&4 indicate a significant and positive association between of Competitor risks and competitive advantage, these results provides strong support for H3.
Key vulnerabilities influences competitive advantage
The findings on Table 3&4 indicate a significant and positive association between of Key Vulnerabilities and competitive advantage, these results again provides support for H4.

Core assumptions influences competitive advantage
The findings on Table 3&4 indicate a significant and positive association between Core assumptions and competitive advantage. These results again provide support for H5.

Competitive intelligence influences competitive advantage
The findings on Table 3&4 indicate a significant and positive association between competitive intelligence and competitive advantage. These results again provide support for H6.

In the following section of this paper, each of the findings is discussed and conclusions are made based on the findings.

4. DISCUSSION
Table 3, 4, 5&6 clearly demonstrated, that where Competitive Intelligence is deemed to be effectively taking place in this exploratory study, there is evidence to suggest that it is contributing to overall competitive advantage of corporate organizations. Moreover, the underpinning hypotheses, as stated earlier are clearly substantiated by the results of this study. In general, there is a strong relationship between the competitive intelligence of a corporate organizations and its competitive advantage.

Each competitive intelligence component contributes to the competitive advantage measure examined, although their relative influences vary according to the specific competitive advantage dimension.

As can be seen from Table 5, the most significant predictor of the competitive intelligence based competitive advantage measure is information gathering. Furthermore, from the findings, there are implications regarding possible linkages amongst the three competitive advantage dimensions utilized. These tentative results lend credence to the propositions advanced by both scholars and practitioners that there is a relationship between competitive intelligence and organizational performance (Ahiauzu, 2006). Customer philosophy is conceived as the key component underlying the relationship between one of the five effectiveness measures in this exploratory paper and this is obvious in the competitive advantage dimensions for all the results. In essence; this paper reinforces the need for corporate organizations in Iran to emphasis the nurturing of a sound competitive intelligence if they are to benefit fully from increased competitive advantage rates.

The implications of the results of this study are clear for scholars and managers. For managers, this paper has implications on the investigation of the link between competitive intelligence and competitive advantage of corporate organizations in Iran In the first place, this paper provides a direct test of the applicability of a western paradigm to Iran economic system different from other culture. The competitive advantage rating scales Spanos & Liouka (2001) were developed in the context of the Western cultural setting. Even though the continued internationalization of business operations has led to the conjecture that marketing theories and models might well be transportable across national and cultural borders (Sin et al., 2001), the direct application of these model to subjects from another culture without any validation might create a “category fallacy”.

Moreover, an uncritical emulation and extrapolation of the experiences of USA marketing practices to country with different cultures and economic environments might lead to inefficient and ineffective performances of organizations in those countries. Our findings increase our confidence in the cross-cultural applicability of Spanos & Liouka (2001) scale and model in studying competitive advantage. Of course, this research must be replicated in other diverse market environments and overtime to increase the generalization of the theory. For managers, this paper helps to assess the effectiveness of competitive intelligence and competitive advantage in the transitional economy of Iran. The inconsistent growth of the Iran economy has caught worldwide attention in recent years.
Understanding more about business strategies in Iran can be enormously helpful for foreign organizations interested in collaborating and / or competing against Iran enterprises. This paper represents the first of a series of studies investigating competitive intelligence and competitive advantage in the context of corporate organizations in Iran. Given the theoretical and managerial significance of this research, it will not be the last study of its type.

4.1 Conclusions and Recommendations

The survey results suggest that a valid instrument for measuring the competitive intelligence and competitive advantage of corporate organizations in Iran has been developed. Competitive intelligence seems to consist of five dimensions (Fahey, 2007) and be measured using 21 questionnaire items. Competitive advantage appears to consist of three dimensions Spanos & Liouka (2001) and be measured using 20 questionnaire items which demonstrate content, criterion and construct validity. A customer philosophy includes management recognition of the importance of designing the company to serve the needs and wants of chosen markets, management development of different offerings and marketing plans for different segments of the market and management decision to take a whole marketing system view (suppliers, channels, competitors, customer, environment) in planning its business.

An integration and control of the major marketing functions include a high level of marketing integration and control of the major marketing functions, marketing management working well with management in research, manufacturing, purchase, physical distribution, and finance; and Management usually having full knowledge of the sales potential and profitability of different market segments, customers territories, products, channels and other sizes. Adequate marketing information include regularly conducting marketing research to study customers, buying influences, channels and competitors; management having full knowledge of the sales potential and profitability of different market segments, customers territories, products, channels and other sizes; and effort is expanded to measure the cost effectiveness of different marketing expenditures.

Strategic orientation consists of management developing an annual marketing plan and a careful long range plan that is updated annually; the quality of current marketing strategy is clear, innovative, data based and welled reasoned; management formally identifies the most important contingencies and develops contingency plans. Operational efficiency include marketing thinking at the top are communicated and implemented down the line; management doing an effective job with the marketing resources and management showing a good capacity to react quickly and effectively on the spot development.

This paper has sought to contribute further to the knowledge concerning competitive intelligence and competitive advantage by applying the established competitive advantage model to corporate organizations in Iran under somewhat unique circumstances. However, in furtherance to the realization of set objectives, we make the following recommendations:

1) Organizations in Iran should always create a competitive Intelligence unit to regularly monitor the activities of competitors and to evaluate the organizations actions in line with that of competitors

2) Management must consistently motivate its intelligence team so that it will analyze the customer’s needs, seek to satisfy them, and try to adapt the products to these needs, react to competitors’ actions and responses.

3) Management should also work in collaboration with other workers in the company and share information about customers and competitors with these workers.

4) Research efforts in the future should consider certain themes and issues that have emerged from this paper.

In line with this, attention could be devoted to examine the relationship of these constructs in other cultural environments other than Iran.

Future research could also establish conceptual and theoretical linkages between the different causes and the particular types of competitive advantage, i.e. ownership-based, access-based, or proficiency-based. For instance, which cause within the 4Cs is most relevant across all three types of competitive advantages? What kind of causes is more likely to give rise to proficiency based competitive advantages? Addressing these specific linkages and patterns will help us better understand the theoretical underpinnings of the practical endeavor in searching for competitive advantages in global competition.
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REFERENCES


