



Effect of Competitive Intelligence on the Chaotic Management in the Sports Administrators of Khorasan Razavi Province

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ABSTRACT

The present study aimed to investigate the effect of competitive intelligence on the management of chaos in the sports administrators of Khorasan Razavi province. The statistical population included managers and deputy of Youth and Sports Department director-general of Khorasan Razavi province, city managers of Sport and Youth, and Sports Heads of Delegations in Khorasan Razavi province. Given the number of population is 84 people, and because of the limited number of population the entire population, as the sample were considered. The research tools included two questionnaires of Chaotic management of sports organizations developed by the researchers and competitive intelligence questionnaire of Fahey (2007). To check the validity of the research, from ten experts of sports management surveys and research validity was confirmed. The reliability of the study, calculated and confirmed by Cronbach alpha test for chaotic management of sports organizations 0.89 and for competitive intelligence questionnaire Fahey (2007) 0.95. To analyze the data, the descriptive statistical tests, Kolmogorov-Smirnov, Pearson correlation and regression analysis were used. The results showed that significant positive correlation between competitive intelligence, and management of chaos. Also competitive intelligence components are predicting chaos management.

Keywords: Competitive Intelligence, Chaos, Chaotic Management.

1. Introduction

Despite the fact that chaos theory has been investigated from the viewpoint of various academic disciplines, the simple concept has rooted in the human basic perception of the world. According to chaos theory, while world affair seems to be irregular, accidental, and hence unpredictable, they enjoy a sort of regularity and certainty. This viewpoint has prompted a novel movement in scientific projects of physics and math from 1970 onward with respect to extraordinary changes in electronic digital tools. These changes mainly resulted in the introduction of new methods of studying complicated streams which seem to be accidental and unpredictable (Box & Baseguard, 2003). The results of these studies gradually were employed in other disciplines which deal with seemingly complicated and accidental phenomenon. Regarding butterfly effect, dynamic adaptability, holography, self-similarity and strange attraction as the main features of chaos theory, The emergence, and evolution of chaos theory lead to fundamental changes in Scientific and theoretical fields of sciences such as management. For instance, the feature of butterfly effect of systems' chaos is more sensitive to preliminary condition and a slight change in these conditions can have significant effects on the system's results and functions. Accordingly, the feature of these economic, politic, social and organizational systems would be that a slight change or manipulation of some points in which leads to major changes (Gastella et al., 1995).

2. Literature Review

Identifying the methods of determination of this underlying regularity in sophisticated systems is the common question of these studies which helps to anticipate their future progress in contrast to previous beliefs. According to chaos theory, sophisticated systems only have a chaotic appearance and thus look irregular and accidental, while in fact, they follow a specific course of a specific mathematical formula. Therefore, the chaos issue is commonly called specific chaos in mathematic (Mourison, 2002).

A chaotic process is the product of a non-linear dynamic system. Such systems are observed in nature and also human behavior. For instance, heart rate, pendulum motion of clock and economic fluctuations all exhibit a sort of non-linear dynamic behavior. Therefore, dynamic non-linear systems should be studied to understand chaos. In fact, positive and negative feedback loop is the base of all economic dynamic systems. Positive feedback loops involve processes which offer a change in the dynamic system via a renewed pressure mechanism. Negative feedback loops involve processes in which the system moves toward a specific value. In these processes, there is a distinction between the present condition and the ideal one; in the case of a difference between these two conditions, negative loop will become activated and navigate the system toward the ideal condition. In this way, it can be said that process entailing negative feedback loop enjoy a self-corrective mechanism which leads the system toward consistency (Laurence and Lorsh, 2007).

A system entailing chaotic process, create fluctuations with a basically limitless cycle. In other words, a chaotic system creates cycles which never repeat in the studied cycle. In a chaotic system, cycles are unique due to its nonlinear borders which move the motion back and forth so

that it does not conform to its previous course. This back and forth motion, indeed, causes the chaotic system to be sensitive to the initial condition. In the case of a slight change in one or two values of initial condition, the new time path will depart exponentially from the previous time path (Wilding, 2009).

Competitive intelligence has become one of the main managerial concepts and even engages in leading companies' culture in recent years. Competitive intelligence helps organizations analyze their surrounding information more accurately and quickly, and also store the results and share them with decision-makers at the right time (Anita, 2007). This facilitates the exchange of information and knowledge in an organizational background and significantly enhances the effectiveness of Thinking and collective decision-making process. Employing competitive intelligence activities in organizations improves information quality and organizational process systematically, facilitates decision making, enhances organizational efficiency and awareness and reduces the costs. In addition, it helps to identify opportunities and threats, saving time and improving information distribution (Bucheda, 2007).

Furthermore, competitive intelligence affects organization's competitors directly or indirectly in various areas such as business affairs, business development, techniques and strategies in various sections or methods of leading the market, patent, and research. A legal and essential factor of forming the competitive strategy in the organization which causes, Competitive intelligence provides a valuable insight for decision makers regarding competitor's trends and competency. In fact, this helps the organization consciously deals with future events affecting its performance (Dishman and Kallof, 2008).

Competitive intelligence is considered an important tool in strategic planning and management process of the organization which allows them to anticipate the events occurring in the competitive environment (Bucheda, 2007). Currently, the organizations will be leading in the competitive environment which understand and evaluate their activities profoundly and provides themselves with more competitive advantages (Flasher, 2008). In the modern era characterized by a rapidly-growing market, relying on old information leads to losing insight and opportunities. Competitive intelligence process follows the competitors' activities directly or indirectly by analyzing internal information of the organization. Therefore, constant analysis of internal and external environments of the organization, besides the interpretation of received data, significantly affects the decisions managers will make in future (Kallof and Wright, 2008).

In fact, the completion currently takes place worldwide and globalization is ever-increasingly removing nations' support of the national industry. In this situation, nations and companies capable of developing competitive advantage would be able to enjoy world's market opportunities (Anita and Hasford, 2007). Intelligence services observe the organization's environment and its surrounding events; they also provide the required information (kolakogolo, 2011). Intelligence systems must be managed in order to work effectively. Competitive intelligence is a systematic process employed to acquire information about competitors and to analyze them in order to facilitate organizational learning, classification, and targeting based on industry, market, and customers. Some authors consider competitive intelligence in line with

other systems such as knowledge management and business intelligence (Tin et al, 20080). This is due to the apparent overlap between these systems, while the competitive intelligence is dominant so that one can find business intelligence, knowledge management, and other knowledge-based systems in competitive intelligence (Tison, 2003).

Numerous studies have been carried out regarding chaos management, non-linear systems management, and competitive intelligence. In a study titled “the relationship between competitive intelligence and the effectiveness of Nigerian companies’ marketing”, Nuka and Francis (2009) showed a significant positive relationship between competitive intelligence and the effectiveness of major companies’ marketing. In addition, the results of the studies carried out by Muler (2009), Wright et al (2002), and Marin and Poulter indicate the significant effect of competitive intelligence on the success of the organization and the competitive strategy. Investigating the relationship between Internet tools and competitive intelligence, Chen et al (2002) suggested that effective application of internet and knowledge management in business companies helps them to acquire the competitive advantage and to increase market share. Zangui Nejad and Moshabaki (2009) reported the significant positive relationship between competitive intelligence and organization’s structure in a study titled “the study of the relationship between structural capital and competitive intelligence”. Straus and Tite (2010) investigated the required competitive intelligence skills to develop competition in South Africa; they reported that the presence of competitive intelligence in the marketing strategy of the organization is required to create competitive advantage. Que (2008) also investigated the competitive intelligence in organizations from the managerial viewpoint and suggested it an effective factor in the improvement of organization’s strategic planning; he also emphasized the role of competitive intelligence as a planning tool for successful managers. In a study titled “chaos theory in school management”, Kaskela and Haul (2006) indicated that the managers encourage self-motivation in an organization via chaos theory, so that the instability in the organization is not unfavorable as long as the survival is possible. Chaotic managers encourage variation, discrepancy, contravention, paradox, and innovation; the essential component of innovation in organizations managed by such leaders is disagreement. In addition, in a study titled “leading a compatible system via chaos”, Monica (2007) suggested that the result of chaos can be the organizational evolution in the case of prioritizing the tasks and plans. In this study, the changed status of dynamic goals and transmission from a chaotic path is demonstrated through numeral models; it is also shown that nominal events can bring about major unexpected results which are the main product of the chaotic process. It is possible to obtain ideal results by leading this path. Furthermore, Locus (2009) concluded that the sophistication of a project, external and internal targeting of the project, organization and planning are the tools used for analyzing the risk of changing chaos in a project. Wilding (2009) believes that the development of chaos in organizations capable of quickly adapting create competitive advantage.

to date, There has not been much study about chaos management in the field of marketing and management. In a world marked by competition, those managers would win the competition who are capable of immediate analysis of competitors and take advantages of the chaos; and those

who are not able to manage the chaotic situation will lose the competition. The sports industry is considered in the top ten major industry and more influenced by environmental chaos. Management in the chaotic situation can affect the organizations' competitive ability with respect to chaos components. Therefore, the present study aims to investigate the effect of competitive intelligence on the ability to manage the chaos in sports organizations in Khorasan province.

3. Methodology

This study is a descriptive correlation research with applied nature. Statistical society includes managers and assistants of sports administration of Khorasan Razavi, Sports managers of towns, and sports committees of Khorasan Razavi province. Due to the limitation of the statistical population, the entire population which is 84 individuals is considered as the statistical sample. The research tools employed are two chaotic situation questionnaires in sports organizations and Fahey's competitive intelligence questionnaire (2007). The validity of questionnaires for the respective population and sample is approved by ten professors of sports management in the province, although the research tools are validated in previous studies. The reliability is calculated by Cronbach's Alpha test 0.89 for chaos management questionnaire and 0.95 for Fahey's competitive intelligence. Descriptive statistic test, Kolmogorov–Smirnov test, Pearson Correlation Coefficient and Regression test are used to analyze the data.

4. Finding

To describe the variables descriptive statistical analysis including mean, median and standard deviation were used.

Table 1: describes the variables chaotic management and competitive intelligence and their components

Variable	Mean	Median	Standard Deviation
Chaotic management	2.2	2.2	0.415
butterfly Effect	2.4	2.3	0.325
Dynamic adaptation	2.1	2	0.418
Stability	2.3	2.5	0.236
Strange Attractions	2.6	2.5	0.415
Competitive Intelligence	2.3	2.2	0.215
Market opportunities	2.2	2	0.526
Aware of the risks of competitors	3	2.9	0.123
Aware of the threat of competitors	3.1	2.9	0.415
Vulnerability	2.5	2.7	0.525
central assumptions	2.9	2.8	0.236

According to Table 1 it can be seen that the average Chaotic management of sports organizations Razavi Khorasan Province was 2.2 and the average rating of competitive intelligence is 2.5. Nonetheless, strange attractions, with an average 2.6 rating, the highest score among the components of chaotic management, and awareness of the threat of competitors, with average score of 3.1, the highest mean score among the components of competitive intelligence, in sports managers.

Table 2: Results for Kolmogorov-Smirnov for the distribution of variables

Variable	K_S	P_Value
Chaotic management	0.254	0.415
butterfly Effect	0.145	0.155
Dynamic adaptation	0.512	0.652
Stability	0.513	0.123
Strange Attractions	0.123	0.651
Competitive Intelligence	0.472	0.091
Market opportunities	0.254	0.111
Aware of the risks of competitors	0.256	0.098
Aware of the threat of competitors	0.236	0.87
Vulnerability	0.458	0.129
central assumptions	0.139	0.415

According to the findings of Table 2 indicates that all variables have a normal distribution. In order to evaluate the effect of variables Pearson correlation coefficient and stepwise regression were used.

Table 3: The correlation of competitive intelligence and chaotic management of sport organizations of Khorasan Razavi

chaotic management	correlation coefficient	P_Value
Competitive Intelligence	0.215	0.001
Market opportunities	0.199	0.001
Aware of the risks of competitors	0.226	0.001
Aware of the threat of competitors	0.239	0.001
Vulnerability	0.199	0.001
central assumptions	0.412	0.001

According to Table 3, it can be seen that between competitive intelligence and all of its components, including market opportunities, awareness of the risks of of competitors, competitors' awareness of threats, vulnerabilities and key assumptions, with chaotic management have significant positive correlation.

Table 4: The correlation of competitive intelligence with chaotic management components

	Butterfly Effect	Strange attractions	Stability	Dynamic adaptation
Competitive Intelligence	0.226	0.254	0.319	0.313
Market opportunities	0.321	0.289	0.333	0.216
Aware of the risks of competitors	0.239	0.265	0.318	0.289
Aware of the threat of competitors	0.315	0.318	0.385	0.219
Vulnerability	0.322	0.299	0.269	0.312
central assumptions	0.315	0.251	0.222	0.326

According to Table 4, it is observed that competitive intelligence and its components, significantly have positively correlated with chaotic management components in sports administrators of Khorasan Razavi province.

Table 5: Regression analysis, of competitive intelligence components with Chaotic management of sports organizations in Khorasan Razavi

	B	Standard Error	Beta	T	P_Value
Constant factor	0.984	0.021		19.195	0.001
Market opportunities	0.256	0.020	0.115	16.198	0.001
Aware of the risks of competitors	0.415	0.013	0.122	20.256	0.001
Aware of the threat of competitors	0.924	0.045	0.191	13.236	0.001
Vulnerability	0.574	0.022	0.56	19.916	0.001
central assumptions	0.521	0.018	0.194	18.594	0.001

According to Table 5, it can be concluded that competitive intelligence components, significantly predictive of chaotic management, in sport organizations in Khorasan Razavi province.

5. Discussion & Conclusion

The present study aimed to investigate the effect of competitive intelligence on the chaotic management of sports managers in Khorasan Razavi province. The results of a descriptive investigation of variables show that competitive intelligence of sports managers in Khorasan Razavi is below the favorable level. In addition, the investigation of chaotic management shows that the management ability of sports managers in Khorasan Razavi is below the average level. This shows that the managers are not able to react properly in case of environmental change. The managers with the lesser ability to take advantage of opportunities are not able to develop their sources. Sport offices and sport committees in the province can use opportunities such as the youth's interest in sport and supportive laws to increase individuals' participation; they can also attract further support from government and other organizations, increase cooperation with private section In order to develop their activity in sport areas and hence increase people's participation. Furthermore, with respect to the limited ability of managers to manage the chaotic situation, the ever-changing situation of sport and organization, managers' fails in manage the chaotic situation and organizations will face problems. Spears (2006) also suggested that chaotic managers are Forethoughtful, thus they should design the organization's structure so flexible that a novel path to organization's objective become available in unpredictable, chaotic situation. Real et al (2006) suggested that awareness and creativity are the factors creating competency in managers. Marine and Poulter (2004), Chen et al (2002), Mouler (2009), Wright et al (2002), and Nuka and Francis also emphasized the role of competitive intelligence in organization's achievement to success and strategic objectives and proper reaction to environmental changes as well. The result of the study indicates that competitive intelligence and its components have a significant positive correlation with chaotic management. In other words, the managers with higher competitive intelligence identify the chaotic situation efficiently, react to customer's needs quickly in a competitive situation and thus lead the way. Managers who identify market opportunities in changing environment are able to create competitive advantage and succeed over competitors. Sports organizations capable of attracting customers and taking advantage of a limited number of sponsors indeed appreciated chaotic paradigms of the ever-changing environment. Such managers can react to competitors' behavior efficiently, make the best use of the condition and even alter the threats to opportunities. They also identify their own organization's advantages and disadvantages to manage the critical points leading to chaos and thus take proper actions. Zangui Nejad and Moshabaki (2009) and Kaskela and Haul (2006) reported that the managers will be successful who are capable of reacting to changes properly and design the organization's structure according to environmental changes. The results also showed that competitive advantage component has a significant relationship with chaotic management components in sports managers in the province. The managers who analyze the competitors correctly and increase their own market share, they are aware of the major effects exerted by events on the external and internal environment of the organization. Many phenomena

initiated by an apparently trivial event lead to the creation of a major campaign and impacts the society extremely. The managers who understand this butterfly effect, attempt to take advantage of critical points in the environment to create competitive advantage and reduce the threats to succeed over the competitors. Sometimes, phenomena such as international achievements, shocking news about the importance of sport and athletes' behavior can impact Social Leverages and create interest in the chaos-inducing sport; managers should attempt to take advantage of this chaotic environment to attract more people to physical activities. Lucas (2002) reported that organizations must identify environmental changes quickly and react to critical ones properly. In addition, such managers are able to adapt to changes and prepare the organization to response to the current environment, to identify competitors correctly and react accordingly. In sports area, organizations should adapt to customer's new needs and response to their changing needs quickly so that they can encourage them to participate in physical activities. Intelligent managers design their organizations with respect to chaos management so that it can react to changes and quickly adapt to various situations such as recession or economic boom, or different political, cultural and social status. Monica (2007) and Wilding (2009) also showed in their investigations that the organizations capable of adapting to environmental chaos will succeed in the competitive situation and have higher performance.

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