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SURVEYING AND RANKING THE FACTORS AFFECTING COMPETITIVE INTELLIGENCE (CASE STUDY: BANK MELLI IRAN, BRANCHES OF MASHHAD CITY)

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ABSTRACT

One of the biggest challenges for the organizations in the current era is using the opportunities in the current dynamic environment and gaining competitive advantage. In fact, competitive intelligence is considered as radar exploring new opportunities and threat warnings and enabling the organization to quickly and carefully detect its environment. This research tries to survey the factors affecting competitive intelligence in Bank Melli Iran branches of Mashhad city. The research methodology is analytical- survey; and this research is considered an as applied research. In this approach the statistical population includes 440 individuals and the highest estimated sample at error level 5 is 154 managers and staff. Data were collected by the use of questionnaire, and SPSS software and TOPSIS were used for analyzing data at 94 % confidence level. Three tests of t-student, ANOVA test and LSD were used for determining the degree of importance and effectiveness of dimensions of competitive intelligence. By prioritizing attributes by the use of TOPSIS technique it has been found out that attributes of identifying the customers' desirable values in designing organization system, organization leaders support from the learning and participation processes, integrated activities of the organization in the competition and achieving integrated competitive advantages, creating procedures for learning, creativity and innovation, and a systematic method for designing and managing processes are highly important.

Keywords: Competitive Intelligence, Competitiveness, Bank Melli Iran

INTRODUCTION

Nowadays competitive intelligence is considered as one of the management concepts, and many large companies consider it as a part of their organizational culture; because in many ways the competitive intelligence approach have more benefits compared to the other management concepts formed during the recent decades. Also for responding to the growing complications in the current economic, political, and social environment, competitive intelligence is used as a powerful source in managers' hands and if they use it wisely it could analyze the information achieved from the internal and external environment of the organization and respond to a variety of organization needs (Gatsoris, 2012). This accelerates the process of exchange of data, information and knowledge in the organization and improves the effectiveness of thinking and decision-making (Mirabi *et al.,* 2010). An intelligent organization understands competitors more quickly and learns lessons from their failure and success; and provides this possibility for the organization managers to systematically monitor and to make strategic decisions with more awareness (Strauss and Toit, 2010). During the recent years and based on the competitive market of banking systems, and appearance of private banks one after another, and appearance of foreign banks in the near future, and the necessity of survival in that time, as one of the economic pillars of the country, banks also try to make their marketing activities more effective (Venous and Safaeian, 2004). Competitive intelligence is the infrastructure for the pillars of the competitive advantage and the stronger this infrastructure the more the resistance and the capability of the pillars and ultimately the more strength and stability the competitive advantage will have (Dishman and Calof, 2008). Unfortunately most of the studies about the competitive intelligence are only about measuring its components and they have not paid attention to the prioritization of the attributes affecting it. Thus the current study tries to measure the

Research Article

importance of attributes and dimensions of competitive intelligence in Bank Melli Iran branches of Mashhad city and to prioritize the factors affecting it by the use of multi-criteria decision-making techniques.

Theoretical Concepts

History and Definitions of Competitive Intelligence

Competitive intelligence is not a new concept. This term stepped into the business literature in the first half of the industrial era. It seems that the competitive intelligence application firstly happened in 1930; however it was not until 1960's that daily notes about competitive intelligence, strategic intelligence, and environment scanning were published. Yet it was in 1980's that business intelligence systems and management information systems were formed to provide the possibility of using peripheral information with maximum effectiveness. But since the early 90's and by completion of a variety of approaches of management systems, the concept of competitive intelligence became widespread as a big part of the organizational intelligence. In this era researchers designed and used several approaches for measuring competitive intelligence and its effects on the organization; but since the early 90's it became widespread as an integral part of the business literature among the researchers and scholars. It is estimated that in terms of volume, more than 58% of the organizational intelligence consists of competitive intelligence; and up to now many scholars all around the globe have tried to process competitive intelligence (Marin and Poulter, 2004). Competitive intelligence is the ability resulted from the systematic process of collection, survey and analysis of information about environment, competitors, customers, suppliers, market industry trends and future behavioral patterns of the environmental elements and market. In other words, competitive intelligence could be called as the art of attracting and transferring knowledge from the cross-organizational elements and environment based on specific rules and principles to the organization in order to protect the competition threats and to understand and to utilize the potential opportunities for building the future (Fleisher, 2008).

Based on the definition by GTILAB, the French management school, competitive intelligence is the art of finding, collecting, processing and storing information for staff use at all levels of the organization to form the future of the organization, and to support the organization against the competitive threats. Based on Leonard Fuld's views, competitive intelligence is warning signals about the opportunities and threats. In another article, this researcher believes that the intelligence of the business is not necessarily the only output of the database and voluminous reports. Also it is impossible to call competitive intelligence as espionage or data theft.

In this process, legal and moral tools and methods are used for data collection. Monitoring and metering the competitive environment is conducted with the aim of obtaining strategic decisions; competitive intelligence of the senior managers enables the organizations to make on-time decisions based on the awareness about the analyzed information. Intelligent strategic decision-making results in increased competitiveness of the company. Competitive intelligence is an integral part of the emerging phenomenon of knowledge-based economy (Rezaeian and Lashkar, 2010). Nowadays many reputable companies such as General Electric, Motorola, Microsoft, HP, IBM, MT&T, Intel, 3M, Zirax, Merch, Coca Cola, and Chrysler all use competitive intelligent systems (Shermach, 1995).

Importance of Competitive Intelligence

Necessity and importance of competitive intelligence is because of the rapid and continuous change of commercial environment. Managers could not rely on evidences for making strategic decisions anymore. In the current competitive environment the result of an inappropriate decision is impossible to ignore. Companies need information for providing higher values and meeting the customers' satisfaction in all areas. They should have information about the competing companies, intermediaries, and other forces active in the market. Information is considered as one of the strategic assets and tools of marketing and gaining competitive potential (Dolatabadi *et al.,* 2011). Collecting and evaluating information related to the competitive companies is very important in choosing strategies. The more information the company gathers from the competitors the more the possibility of choosing effective and successful strategies. Thus detecting, understanding and reaction of the competitors is one of the special aspects of marketing

Research Article

activities and it is required for the companies to implement an effective program called competitive intelligence to reach competitive potentials (Dishman and Calof, 2008).

Figure 1: Importance of competitive intelligence (Dishman and Calof, 2008)

Types of Competitive Intelligence

➢ *Marketing Intelligence*

This type of intelligence has the duty to provide and supply the current and future trends of customers' needs and preferences to the new markets and create opportunities for categorizing and main changes in the marketing process and competitors' distribution.

➢ *Competitor Intelligence*

This type of intelligence uses continuous and systematic surveying and monitoring of changes in the structure of competitors, new alternative products, and new entrants to the industry and has the duty to evaluate the development of competitive strategies of competitors (Wright et al., 2002).

➢ *Technological Intelligence*

The benefits of current and new technologies and also predicting the technologies that are going to be eliminated in the future and the technologies that are going to be dominant in the future are some of the duties of this type of intelligence.

➢ *Strategic and Social Intelligence*

This type of intelligence includes financial and tax regulations, political and social issues and also social and human resources issues (Farzadfar *et al.,* 2012).
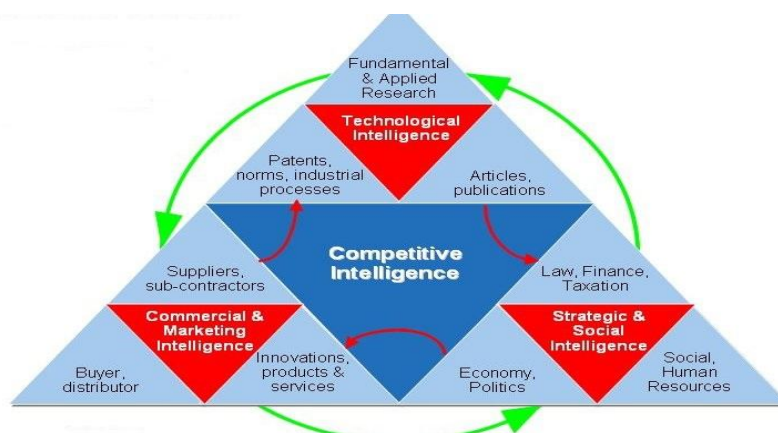

Figure 2: Areas of competitive intelligence

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Research Background
During the recent years due to the unimportant and small amount of competition and different types of visible and hidden subsidies in business areas and different types of visible and hidden complications in some countries (Tyson, 2003) the achievements of competitive intelligence in the area of business in countries were less important and they were less used for improvement of operations in companies.

In an article, Alsina *et al.,* (2013) provided a conceptual model for surveying the enablers and inhibitors of competitive intelligence in the higher education sector and they concluded that all enablers have a positive effect on competitive intelligence and all inhibitors have a negative and significant effect on competitive intelligence.

Tuan (2013) provided the latest research about the competitive intelligence to study the effect of social responsibility of the organization on competitive intelligence in 147 hospitals and Tuan concluded that social responsibility results in occurrence of positive and negative behaviors in an organization and these behaviors affect the team processes and ultimately affect the competitive intelligence in an organization.

Kiggundu and Uruthirapathy (2010) studied the effective dimensions of competitive potential and strategic success of Ecommerce in manufacturing and service providing industries in Canada in line with globalization.

Researchers found out that there is positive and significant relation between competitive potential and its dimensions in the surveyed industry.

Also the trained staff, customer-orientation, competitive intelligence and innovation have the highest effect on gaining competitive advantage and strategic success in Ecommerce.

Due to considering almost all aspects of competitive potential, this research is one of the most comprehensive researches conducted in this area.

Also Muller (2009) designed a competitive intelligence model for using in automotive industry of South Africa and surveyed the components affecting the competitive intelligence.

In another study Saayman *et al.,* (2008) surveyed the factors affecting the creation of competitive intelligence and their model included 4 dimensions of awareness, internal information, and formal infrastructures and staff participation.

Also Miller (2002) provided a simple model for the organizations to achieve competitive intelligence which is known as 4c including: Collection, conversion, communication, and countering of information. This model is as followed:

In a study Ashton and Stacey (1995) provided a model for organizations to achieve competitive intelligence.

The strength of this model is the feedback stage in which the achieved experiences have feedbacks and they are used in order to improve the intelligence planning in the future and detect the intelligence activities required for the users.

MATERIALS AND METHODS
Methodology
Research Method
The current research is a descriptive/analytic survey and it is an applied research.
Research Conceptual Model
In this research 7 dimensions of competitive intelligence that are developed by Moshabaki *et al.,* (2011) are used.
Based on this matter, 7 hypotheses are surveyed in the current research. This model and its dimensions are shown in the following figure.
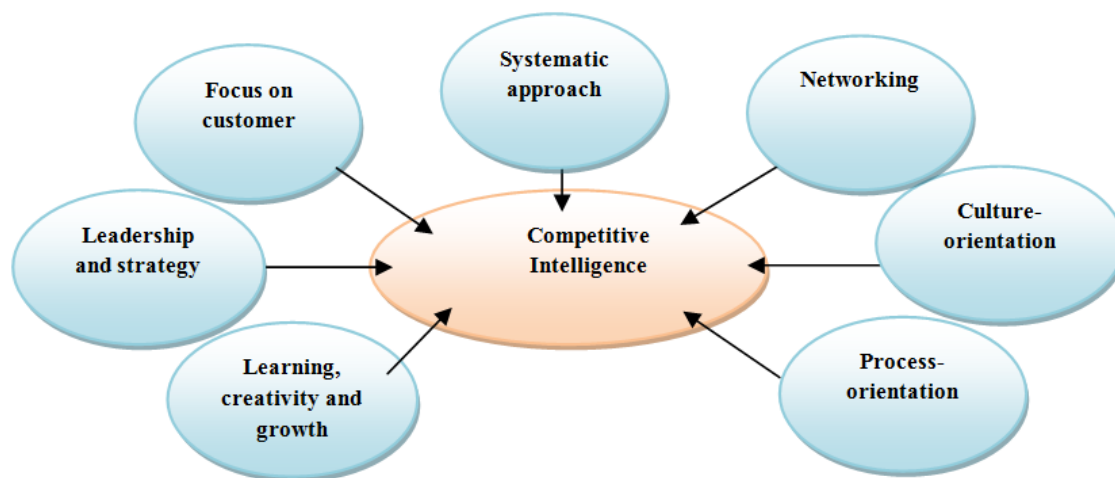
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Figure 3: Research conceptual framework (Moshabaki *et al.,* 2011)

Research Hypotheses

1. Systematic approach dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.
2. Networking dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.
3. Culture-orientation dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.
4. Process-orientation dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.
5. Focus on customer dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.
6. Leadership and strategy dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.
7. Learning, creativity and growth dimension of competitive intelligence in branches of Bank Melli Iran is at desired level.

Population, Sample and Sampling Method

The current study population includes all managers and staff of branches of Bank Melli Iran in Mashhad city that are 400 individuals in 55 branches. A preliminary sampling was used for determining standard deviation of the population. To this aim, the research questionnaire was randomly distributed among 46 managers and staff. Results of surveying the standard deviation of questions of the questionnaire indicated that the highest SD of population was equal to 0.389. Thus according to the achieved SD, the maximum sample size was estimated at error level of 5% to be 136 individuals, and after distributing more questionnaires, 154 completed questionnaires were analyzed. The Cronbach's alpha for the competitive intelligence questionnaire was at level 0.943 and the sampling adequacy test was also at level 0.904 which indicated high levels of validity and reliability.

Data Collection Tools

In this research main part of the data was achieved through the use of questionnaire which is the main base for the research and the research questionnaire is standard.

Data Analysis Methods & Techniques

In this research the statistical hypothesis tests are used by the use of SPSS, and TOPSIS for answering the research hypotheses and questions. Three tests of t-student, ANOVA test and LSD are used for determining the importance and effectiveness of dimensions of competitive intelligence.

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RESULTS AND DISCUSSION
Research Results & Findings
Findings achieved from the hypotheses

Table 1: One-sample statistics

	N	Mean	Std. Deviation	t	Mean Difference	Sig. (2-tailed)
Systematic approach	154	3.69	1.13	3.39	0.30	0.021
Networking	154	2.77	1.08	-2.52	-0.22	0.093
Culture-orientation	154	3.99	1.19	0.027	0.0026	0.008
Process-orientation	154	3.80	0.98	2.47	0.19	0.014
Focus on customer	154	3.49	0.50	5.65	0.50	0.019
Leadership& strategy	154	4.03	0.096	1.71	0.16	0.00
Learning, creativity and growth	154	3.88	1.24	1.12	0.112	0.025

Surveying the research hypotheses indicate that 6 groups of the total 7 dimensions in this research have desired status in branches of Bank Melli Iran in Mashhad city, and they are all confirmed; and only the 2nd dimension which is networking did not manage to gain a desired point and this hypothesis is rejected.

Table 2: Findings achieved from LSD test about dimensions of competitive intelligence (Multiple Comparisons)

LSD

(I) VAR02	(J) VAR02	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.08874	.12963	.000	-.3431	.1656
	3	-.30693[*]	.12963	.118	-.5613	-.0526
	4	-.11286	.12963	.384	-.3672	.1415
	5	.19177	.12963	.139	-.0626	.4461
	6	-.14394	.12963	.267	-.3983	.1104
	7	-.19697	.12963	.129	-.4513	.0574
2	1	.08874	.12963	.000	-.1656	.3431
	3	-.21818	.12963	.000	-.4725	.0362
	4	-.02412	.12963	.000	-.2785	.2302
	5	.28052[*]	.12963	.000	.0262	.5349
	6	-.05519	.12963	.000	-.3096	.1992
	7	-.10823	.12963	.000	-.3626	.1461
3	1	.30693[*]	.12963	.118	.0526	.5613
	2	.21818	.12963	.000	-.0362	.4725
	4	.19406	.12963	.135	-.0603	.4484
	5	.49870[*]	.12963	.273	.2443	.7531
	6	.16299	.12963	.209	-.0914	.4173
	7	.10996	.12963	.397	-.1444	.3643
4	1	.11286	.12963	.384	-.1415	.3672
	2	.02412	.12963	.000	-.2302	.2785

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Research Article

	3	-.19406	.12963	.135	-.4484	.0603
	5	.30464*	.12963	.089	.0503	.5590
	6	-.03108	.12963	.811	-.2854	.2233
	7	-.08411	.12963	.517	-.3385	.1703
5	1	-.19177	.12963	.139	-.4461	.0626
	2	-.28052*	.12963	.000	-.5349	-.0262
	3	-.49870*	.12963	.273	-.7531	-.2443
	4	-.30464*	.12963	.089	-.5590	-.0503
	6	-.33571*	.12963	.310	-.5901	-.0814
	7	-.38874*	.12963	.074	-.6431	-.1344
6	1	.14394	.12963	.267	-.1104	.3983
	2	.05519	.12963	.000	-.1992	.3096
	3	-.16299	.12963	.209	-.4173	.0914
	4	.03108	.12963	.811	-.2233	.2854
	5	.33571*	.12963	.310	.0814	.5901
	7	-.05303	.12963	.683	-.3074	.2013
7	1	.19697	.12963	.129	-.0574	.4513
	2	.10823	.12963	.000	-.1461	.3626
	3	-.10996	.12963	.397	-.3643	.1444
	4	.08411	.12963	.517	-.1703	.3385
	5	.38874*	.12963	.074	.1344	.6431
	6	.05303	.12963	.683	-.2013	.3074

Table 3: Prioritizing attributes affecting competitive intelligence in branches of Bank Melli Iran in Mashhad city by the use of TOPSIS software

Alternatives	Name of the attribute	Cl+	d+	d-
A1	Identifying the customers' desirable values in designing organization system	0.649	0.006	0.011
A30	Organization leaders' support from the learning and participation processes	0.609	0.007	0.011
A4	Integrated activities of the organization in the competition and achieving integrated competitive advantages	0.583	0.007	0.01
A32	Creating procedures for learning, creativity and innovation	0.564	0.008	0.01
A16	A systematic method for designing and managing processes	0.562	0.008	0.01
A34	Link between organizational performance and learning, innovation and creativity procedures	0.558	0.008	0.01
A33	Sharing knowledge and intelligence provided for the organization	0.541	0.008	0.01
A25	Adjusting systematic and informed aims for the relationship with customers (SMART)	0.536	0.008	0.01
A2	Designing holographic projection of the parts and components of the organization	0.528	0.008	0.009
A21	Identifying the customers' desirable values	0.525	0.009	0.01
A7	Network configuration of the structure of the organization	0.524	0.008	0.009
A35	*Monitoring and measuring the processes of organizational*	0.524	0.009	0.009

Research Article

	learning			
A9	Network design of chain of corporate values	0.523	0.009	0.009
A22	*Developing organization strategies to create unique values for the customers*	0.522	0.009	0.009
A8	Communication between parts of the network of the organization and new technologies	0.517	0.008	0.009
A26	Developing missions, perspectives, values and competitive intelligent strategies by organization leaders	0.514	0.009	0.009
A17	Implementing procedures for supporting policies and strategies	0.512	0.009	0.009
A14	Organization staff's ability to pursue personal goals	0.511	0.009	0.009
A18	Set performance goals for the procedures, monitoring and measuring them	0.507	0.009	0.009
A20	Determining systematic improvement opportunities aligned to strategic objectives	0.506	0.009	0.009
A23	Strategic development for customer loyalty	0.506	0.009	0.009
A10	Effective network communications with competitors as a part of the network	0.505	0.009	0.009
A5	Organization configuration for empowerment and interaction between the system promoters	0.503	0.009	0.009
A24	Monitoring and analyzing constant changes of customers' desirable values	0.501	0.009	0.009
A15	Developing strategies as a base for communications and configuring relationships with customers and supply chain	0.497	0.009	0.009
A27	Organization leaders' monitoring and analysis from the constant changes of the market and environment	0.494	0.009	0.009
A29	Organization leaders' interaction with all components of network structure	0.491	0.009	0.009
A31	Developing strategies for learning and creativity management	0.482	0.009	0.009
A19	Improving procedures for achieving customer satisfaction and creating their value added	0.474	0.009	0.009
A13	Culture of controlling, monitoring and measuring the engineering processes	0.465	0.01	0.008
A12	Detecting and planning the features of culture and the required culture	0.459	0.01	0.008
A3	Entrance of other organizational systems in case of failure of one system	0.455	0.01	0.008
A28	Planning the model of network structure and organizational culture by organization leaders	0.437	0.01	0.008
A6	Analysis and feasibility study of all possible network communications	0.414	0.01	0.007
A11	Special cultural environment for learning and participation	0.386	0.011	0.007

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Table 4: Results achieved from the ANOVA test of dimensions of competitive intelligence

ANOVA

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	22.995	6	3.833	2.962	.007
Within Groups	1385.814	1071	1.294		
Total	1408.809	1077			

Conclusion
The current research results showed that factors of competitive intelligence related to the dimension of leadership and strategy in branches of Bank Melli Iran in Mashhad city with 4.0344 mean had the highest score and this indicates that factors such as developing missions, perspectives, values and competitive intelligent strategies by organization leaders are important for the organization. On the other hand, in dimension of networking the organization could not manage to achieve an appropriate score and it has to take measures toward creating a network organization. The architecture of structure of network management is always developing and it continuously takes new forms. In priorities of attributes by the use of TOPSIS technique, the attribute of identifying the customers' desirable values in designing organization system was the first priority. This means that by considering the customers' knowledge, the processes are designed based on their demands, which is today called as the customer knowledge management. Attributes such as analysis and feasibility study of all possible network communications and special cultural environment for learning and participation also had the lowest level of importance.

Results achieved from the ANOVA test indicated that at 95% confidence level there was a significant difference between the mean of factors of competitive intelligence in branches of Bank Melli Iran in Mashhad city. Also in LSD table, by observing the first group, systematic approach, it is seen that this group only had a significant difference with the second dimension (networking) but it had more similarity with other groups. On the other hand, the second group (networking) had a significant difference with all other groups.

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Research Article

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