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Measuring the organizational intelligence of the experts and managers of the cement factory in Sistan

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Abstract

This study has been carried out aiming at measuring the organizational intelligence of the experts and managers of the cement factory in Sistan. The research is practical-descriptive and the statistical population includes all 50 experts and managers of the cement factory in Sistan. Sampling method was consensus. Therefore, all the population was considered, yet 42 questionnaires were returned for analysis. The instrumentation included the 49-question Albrecht's organizational intelligence questionnaire. The content validity and its reliability (using Cronbach index = 0.81) were calculated. The results show that the organizational intelligence of the experts and managers of the Sistan cement factory is unacceptably below average. The findings also revealed that the parameters of strategic vision, shared fate, appetite for change, and alignment and congruence were below average and the ones of heart, knowledge deployment, and performance pressure were above average.

Keywords: Intelligence, Organizational Intelligence, Sistan Cement Factory

Introduction

With the increasing changes and revolutions in the world of today which is the era of information and communication and due to instability and changeability and also unpredictability of these changes, what aides countries especially the developing ones to increase their productivity, progress and advancement is utilizing the opportunities in competitions with other. This in turn will not be achieved except with managers' intelligence and also their influence in making the experts innovative. These two cooperatively pave the way for the growth of the organization and the society at large as well (Hemmati, 2009). One of the indicators of innovation is high intelligence. In other words, it is the track and footprint of appearance of innovation. The logical relation between the two is not mutually exclusive though. Sometimes the intelligence is high yet innovation does not occur and sometimes based on the appearance of innovation, high intelligence is assumed (Ramazani, 2009). Intelligent individuals have features such as ability to comprehend complicated information from the outside world and execute correct reaction to this information and also learn fast. Similarly, organizations have levels of intelligence. Some organizations have low intelligence; they cannot make most obvious changes in their surroundings or react to them, they notice the issued wit delay and repeat their mistakes again. Some other organizations have characteristics of intelligent people. These organizations are interested in novel subjects and accept new topics curiously. They are congruent and flexible in reactions and they are able to learn fast. In general, intelligent organizations are the ones having high speed of learning, sharing information and reacting to managerial revolutions (Atashpour, 2008).

Gardner posed a question as to which of these people are more significant and more intelligent: Albert Einstein (physician), Virginia Woolf (Novelist), Igor Stravinsky (Musician and composer), Pablo Picasso (painter), Martha Graham (Choreographist and dancer), Mahatma Gandhi (politician and social pacifist), and Sigmund Freud (psychologist). Many other names can be added to the list including Beethoven, Shakespeare, Da Vinci, Michelangelo, and Bach and many others from the east, like Hafiz, Rumi, Khwarizmi, Aboureyhan, and Avicenna. The common feature in all these people is to play a great role in the revolution and advancement of the human civilization. In Gardner's belief, you cannot compare these people

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with one another. This is because comparison calls for a specific single definition of intelligence which is not reasonable. Changing this definition will naturally change the option (Gardner, H. 1999).

According to Binet and Simon, intelligence is the ability to judge, understand and reason. It is also defined as feeling good, ability to adapt, and being innovative and creative (Ramazani, 2009). In general, intelligence is the ability to learn and apply what has been learned in adapting with a new situation and solving new problems (Mann, 2009).

Organizational Intelligence

According to Albrecht, for a basketball team, a music band, a military unit, a small or big business or any organization to succeed, they need to translate individual intelligence into a common collective intelligence (Albrecht, K. 2003). The concentration of this concept is on the unity of the human technical abilities to solve problems and to be more specific, organizational intelligence includes the totality and universality of organization information, experience, knowledge, and understanding.

Experts have provided different definitions of organizational intelligence:

1. Glynn argues that organizational intelligence is the result of addition and interaction of the intelligences of the individuals in an organization. Organizational intelligence is a social process whose theory is designed based on human intelligence theories (Glynn, 1996).

2. McMaster (1996) defined organizational intelligence as the capacity of a system to accumulate information, innovation, production of knowledge and deploying that knowledge in the organization (McMaster , M. 1996).

3. According to Liebowitz, organizational intelligence can be defined as a horde of all intelligences which are employed in order to create a common outlook, to conduct revision process and to direct the whole system (Liebowitz, 1999).

4. In Simic's opinion, organizational intelligence is intellectual ability of an organization to solve organizational problems and its emphasis is on the concentration of human and technical abilities in problem-solving (Simic, 2005).

5. Matsuda contends that organizational intelligence is a complex, interactive, accumulated, coordinating set of the organization's human and machine intelligences as a whole (Matsuda, 1988).

6. Karl Albrecht defines organizational intelligence as the ability that provokes intellectual capacities of an organization and concentrates them to reach the missions (Albrecht, 2003).

7. In Halal's idea, organizational intelligence is creating and deploying the proper knowledge in adaptation to the environment (Halal, 2000).

8. Schwaninger considers organizational intelligence the ability of an organization in comprehending and responding to the environment in order to achieve its goals and satisfies its stakeholders (Schwaninger, M., 2006).

9. Leon and Gabriela maintain that organizational intelligence is the ability of an organization in creating knowledge and deploying it strategically so as to adapt to its environment (Leon, Florin, Gabriela, Atanasiu. 2009).

Components of Organizational Intelligence

Karl Albrecht asserts that organizational intelligence is comprised of 7 parameters:

Strategic Vision: Every organization in a sense needs an organized principle and a definition of the destination it is attempting to reach. The leaders of organizations have to have answers to these questions: Who are we? What do we exist for? What is the philosophy of our existence? Why should our fellow countrymen and even the people of the world accept us, appreciate us and pay us for what we do? Notice that strategic vision refers to organizational ability in creating, nourishing, and expressing the aims of the organization. The assumption of the strategic vision is that the leaders are able to express the concept of success and when needed they are able to recreate this concept (Albrecht, 2003).

Shared Fate: This means that the staffs are able to cooperatively step towards their visions and reach a feeling of "being on the same boat." This gives them a sense of unity and oneness. Alternatively, when members and employees lack a common outlook and concept of success, there is no hope for that boat to reach its destination (Albrecht, 2003).

Appetite for Change: In some organizational cultures, the way of functioning, thinking, and reacting to the surrounding environment is stabilized to the extent that any change is a considered an illness or a riot. On the other hand, in some others, the word "change" refers to gaining new experiences and it is an exciting term, and in other words it is "a chance to start a new activity." People in this second kind need the recreation of models of business as an exciting challenge and see the change as an opportunity to learn new methods. This parameter is the driving force for the strategic vision (Albrecht, 2003).

Heart: This dimension is the willingness to cooperate over the standard. Each and every member of the staff has to be responsible to cooperate in the affairs of the organization. The amount of energy over your regular responsibility is call optional attempt by social psychologists. In organizations with little or no emotional bonds, staffs only do what they have to. In organizations with high rate of love of work, members will cooperate more than what they are expected to (Albrecht, 2003).

Alignment and Congruence: Any group of over 12 people will clash without a determined system of rules. They have to organize, divide responsibilities, and set rules for interaction and response to environment. In short, in intelligent organizations, organizational system and structure and rules and regulations are in the direction of group learning and cooperation of the employees and eventually, creation of values and getting the mission done (Albrecht, 2003).

Knowledge Deployment: Today, more than ever, success and failure of organizations are based on their effective use of data, information and knowledge. Capacity of creation, transference, organization, sharing and deploying knowledge is a vital and significant aspect of competition in complicated environments. The factor "knowledge deployment" shows the capacity that the culture and atmosphere creates to use valuable mental and information resources (Albrecht, 2003).

In this regard, knowledge deployment is better to be considered a humanistic factor than a structural or technological one. Organizational intelligence includes free flow of knowledge all over the organization and making a balance between maintaining invaluable information and access of key people to it when it is due. Encouraging and protecting new ideas and questioning the current conditions are other features of this facet of organizational intelligence (Albrecht, 2003).

Performance Pressure: This is not correct that only managers get involved with the performance and in other words, reaching the strategic goals and results.In an intelligent organization, each person is responsible about their own performance. When each person is asked questions about their share of responsibility the culture of performance pressure is shaped and any new member can feel this common sense (Albrecht, 2003).

Having said all this, one can conclude that organizational intelligence of the experts is very crucial for any organization. This article studies the organizational intelligence of the experts and managers of Sistan cement factory. The results can help senior managers be able to direct staff inside the organization and satisfy customers outside.

Previous studies

Mary Ann Glynn (1996) examined the relationship between organizational innovation and organizational intelligence. In this study, she pointed to the similarities between human intelligence and organizational intelligence. Organizational intelligence is the social result of individual intelligence and is related to it. As innovation means a novel idea, it requires intelligence and lack of individual and organizational intelligence can cause bafflement and inability in solving the problems. Organizational intelligence can help the organization through with the confusing and mysterious environment of today (Glynn, 1996). The purpose of the study entitled "The Dimension of Organizational Intelligence in Romanian Companies—A Human Capital Perspective" is to provide a general outlook of the status of the experts in Romanian companies considering the seven aspects of Albrecht's organizational intelligence. Also, big companies with over 150 staff members, in this study, are compared to smaller ones, with this presumption that human resources and cultural differences of organizations and their leadership can make a difference in understanding the concept of organizational intelligence and its function. The result was that only 13% of the big companies' experts were familiar with the concept of organizational intelligence and small companies' experts were not familiar at all. However, data analysis showed average or higher organizational intelligence (Lefter, Prejmerean, & Vasilache, 2008).

Another study entitled "Is It Possible to Increase Organizational Intelligence through In-Service Training?" was carried out in Turkey with the aim of determination of the effect of strategic analysis (SWOT) on organizational intelligence. The method was experiential with pre-test and post-test and population of an elementary school with a sample of 40 teachers and two managers. In order to measure organizational intelligence a multi-faceted intelligence scale was applied with facets including agility in action and reaction, compatibility with diverse surroundings, remaining calm, flexibility in function, using imagination, prediction and anticipation, making an effective communication with colleagues, and finding solutions for the rising odds. To measure all this, a 58-question questionnaire with 5 scales was designed. The result shows vast difference before and after the workshop, with the exception of the effective communication with colleagues which showed no significant difference (Atashpour, 2008).

A study on organizational intelligence among Australian managers was done by Albrecht (September 2003) in which from among 200 managers and VPs of

100 companies in a seminar, 128 questionnaires were completed and showed acceptable results: Albrecht first explained the 7 parameter of organizational intelligence and then asked the managers to determine their organization's intelligence. In this study, the highest rate was for revision of annual strategies from the third question "strategic vision" and also "heart" (question 25) with a rate of 3.41 from parameter 5 and the lowest were problem-solving from parameter "performance pressure" (question 45) with a rate of 2.38. This was while the majority of the managers there thought their organization would have a high organizational intelligence. 20-25 of them rated their organization as having 5 out of 5 with organizational intelligence. But the averages gained showed much incredibly lower results. In a replication of the same study, American managers determined their organizations' organizational intelligence comparably lower than average (Albrecht, 2003).

Kimasi, Chisazan, and Fakher (2011), conducted a descriptive-practical study on the differences of organizational intelligence between public and private banks. The standard 49-item questionnaire with 7 parameteres was registered to 29 experts in 2 public and 2 private banks. The results showed a significantly higher organizational intelligence among private banks experts (Kimasi,, Chitsazan, Hasty & Fakher, 2011).

Alvani, Beignia, and Hemmati Mohajer (2012) carried out a study entitled "correlation between organizational structure and organizational intelligence" in state organizations in the province of Lorestan. The variables included: organizational structure (formality, complexity, and concentration) and organizational intelligence (strategic vision, shared fate, appetite for change, heart, alignment and congruence, and knowledge deployment). The results showed that stable structured organizations enjoy less organizational intelligence and dynamic structured organizations enjoy more intelligence (Alvani, Beiginia, Abdorreza & Hemmatimohajer, 2011).

Tabarsa, Abdali, and Hatami (2012) did a research entitled "Increasing Organizational Knowledge-Creation: Explanation of the Role of Organizational Intelligence and Organizational Learning" in Saipa Yadak Co. In this study the researchers examined the role of organizational intelligence on knowledge-creation via organizational learning. To test the third hypothesis of the research 140 experts of the central office of the company were used. The results showed a high causation between organizational intelligence and organizational learning and between organizational intelligence and knowledge-creation. It also showed significant positive causation between organizational learning and knowledge-creation (Alvani, *et al*, 2011).

Research Hypotheses

Main hypothesis: the organizational intelligence of the managers and experts of Sistan cement factory is favorable.

Secondary hypotheses:

1. The level of strategic vision parameter of the managers and experts of Sistan cement factory is favorable.
2. The level of shared fate parameter of the managers and experts of Sistan cement factory is favorable.
3. The level of appetite for change parameter of the managers and experts of Sistan cement factory is favorable.
4. The level of heart parameter of the managers and experts of Sistan cement factory is favorable.
5. The level of alignment and congruence parameter of the managers and experts of Sistan cement factory is favorable.
6. The level of knowledge deployment parameter of the managers and experts of Sistan cement factory is favorable.
7. The level of performance pressure parameter of the managers and experts of Sistan cement factory is favorable.

Methodology

This study is a practical one in terms of its purpose and descriptive in terms of method. The data gathering approach is field study and the instrument is questionnaire (Albrecht 2003).Content validity was run. Modifications based on the views of the supervisor and advisor was made and then the instrument was applied. The reliability of the questionnaire in Cronbach Alpha was 0.81. The population was all the experts and managers of the Sistan cement factory. As the population was limited all were sample in a consensus and given a questionnaire each. The variables experience, educational background and organizational position were considered and 50 questionnaires were administered and 45 returned filled out. As 3 of them were partially filled in, the remaining 42 were statistically analyzed.

Results

Main Hypothesis: the organizational intelligence of the managers and experts of Sistan cement factory is favorable.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
O	42	142.2143	26.08199	4.02454

One-Sample Test

	Test Value = 147					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
O	-1.189	41	.241	-4.78571	-12.9134	3.3420

Figure 1. One-sample t-test results for the Main hypothesis

The results of figure 1 show that the mean and standard deviation of the organizational intelligence of the managers and experts in Sistan Factory are 142.00 and 26.08 which is less than the mean of the test (147) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of organizational intelligence of the experts and managers of this factory is below the average and not favorable.

Secondary Hypothesis 1: The level of strategic vision parameter of the managers and experts of Sistan cement factory is appropriate .

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
strategicvision	42	19.1905	6.09373	.94028

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
strategicvision	-1.924	41	.061	-1.80952	-3.7085	.0894

Figure 2. One-sample t-test results for the secondary hypothesis 1

The results of figure 2 show that the mean and standard deviation of strategic vision parameter of the managers and experts of Sistan cement factory are 19.1905 and 6.09 which is less than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of strategic vision parameter of the experts and managers of this factory is below the average.

Secondary Hypothesis 2: The level of shared fate parameter of the managers and experts of Sistan cement factory is favorable.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Sharedfate	42	18.2381	6.56602	1.01316

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Sharedfate	-2.726	41	.009	-2.76190	-4.8080	-.7158

Figure 3. One-sample t-test results for the secondary hypothesis 2

The results of figure 3 show that the mean and standard deviation of shared fate parameter of the managers and experts in Sistan Factory are 18.238 and 6.56 which is less than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of shared fate parameter of the experts and managers of this factory is below the average.

Secondary Hypothesis 3: The level of appetite for change parameter of the managers and experts of Sistan cement factory is favorable.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Appetiteforchange	42	20.8810	4.26673	.65837

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Appetiteforchange	-.181	41	.857	-.11905	-1.4487	1.2106

Figure 4. One-sample t-test results for the secondary hypothesis 3

The results of figure 4 show that the mean and standard deviation of appetite for change parameterof the managers and experts in Sistan Factory are 20.881 and 4.26 which is less than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of appetite for change parameter of the experts and managers of this factory is below the average.

Secondary Hypothesis 4: The level of heart parameter of the managers and experts of Sistan cement factory is favorable.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Heart	42	21.5952	4.78850	.73888

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Heart	.806	41	.425	.59524	-.8970	2.0874

Figure 5. One-sample t-test results for the secondary hypothesis 4

The results of figure 5 show that the mean and standard deviation of heart parameter of the managers and experts in Sistan Factory are 21.595 and 4.788 which is bigger than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of heart parameter of the experts and managers of this factory is above the average.

Secondary Hypothesis 5: The level of alignment and congruence parameter of the managers and experts of Sistan cement factory is favorable.

The results of figure 6 show that the mean and standard deviation of alignment and congruence parameter of the managers and experts in Sistan Factory are 19.624 and 8.08 which is less than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of alignment and congruence parameter of the experts and managers of this factory is below the average.

Secondary Hypothesis 6: The level of knowledge deployment parameter of the managers and experts of Sistan cement factory is favorable.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Alignment	42	19.6429	8.08438	1.24745

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Alignment	-1.088	41	.283	-1.35714	-3.8764	1.1621

Figure 6. One-sample t-test results for the secondary hypothesis 5

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Knowledge	42	21.4048	4.95866	.76514

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Knowledge	.529	41	.600	.40476	-1.1405	1.9500

Figure 7. One-sample t-test results for the secondary hypothesis 5

The results of figure 7 show that the mean and standard deviation of knowledge deployment parameter of the managers and experts in Sistan Factory are 21.404 and 4.958 which is bigger than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of knowledge deployment parameter of the experts and managers of this factory is above the average.

Secondary Hypothesis 7: The level of performance pressure parameter of the managers and experts of Sistan cement factory is favorable.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Performance	42	21.2619	4.56423	.70428

One-Sample Test

	Test Value = 21					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Performance	.372	41	.712	.26190	-1.1604	1.6842

Figure 8. One-sample t-test results for the secondary hypothesis 6

The results of the figure 8 show that the mean and standard deviation of performance pressure parameter of the managers and experts in Sistan Factory are 21.261 and 4.564 which is bigger than the mean of the test (21) and considering the amount of Sig, one can conclude that with the certainty level of 99%, the level of performance pressure parameter of the experts and managers of this factory is above the average.

Conclusion

Considering the results of the main hypothesis of the study it is concluded that the level of the orga-

nizational intelligence of the Sistan cement factory is below the average and not favorable.

The results of the secondary hypotheses showed that the parameters of strategic vision, shared fate, appetite for change, and alignment and congruence are below the average while the parameters of heart, knowledge deployment, performance pressure are above the average.

Among the parameters of organizational intelligence the parameter of heart had the highest average (21.69) and the one of shared fate had the lowest (18.23) which needs more attention on the part of the managers.

Suggestions

In order to boost the level of the factory's organizational intelligence, the suggestions below can be considered:

1. Reinforcing the strategic vision

- The most important issue in the view of strategic vision is the provision of mission manifest of the organization. Therefore the management has to form a team for this matter .Therefore, they can take appropriate measures after examining the organizational environment to recognize the opportunities and threats.

- Every year the senior managers study and revise the organizational strategies.

- In order for the experts and managers to get familiar with the idea of strategic vision, in-service educational courses can be held.

- Having a principled plan, the organization can identify, grow and elevate the strategist in the organization.

2. Intensifying the sense of shared fate

- Managers have to give credit and brief the experts in crucial matters and issues, because this boosts these individuals' endeavor to reach the goals.

- Managers have to create a sense of trust, sympathy, and friendship and also esteem, merit and pertinence among the staff. This will make the colleagues friendly and proud of their work and workplace.

3. Elevating the managers' appetite for change

- With studying the environment of the organization, the activities have to be constantly growing and synchronizing with the changes of the organizational environment.

- There has to be an encouragement system for the ones giving creative suggestions or better solutions in organizational procedures.

- There has to be the required system as to protect innovation such as suggestions system, teams of product development, etc.

4. Reinforcement of alignment and congruence

- Senior managers have to pay heed to creating teams and approaches to boost rapport and friendly relations in the factory.

- Entrusting authority to the inferior will increase a sense of alignment and congruence among managers and experts.

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