



## RESEARCH ARTICLE

### ORGANIZATIONAL INTELLIGENCE IN KNOWLEDGE BASED PHARMACEUTICAL COMPANIES

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#### ABSTRACT

This study is aimed to identify different levels of organizational intelligence in the knowledge based pharmaceutical companies in Paradise Technology Park, Tehran. In this regard, the components of organizational intelligence were determined for identifying, investigating and measuring. The method applied in this study is descriptive survey and the population are the knowledge based pharmaceutical companies in Paradise Technology Park. For analyzing data, descriptive statistics including frequency percentage and inferential statistics including mean test of population were used. The results reveal that organizational intelligence of the study population with the experimental mean of 3.49 was higher than the theoretical mean of 3 and the highest mean was the component of alignment and congruence and lowest one was appetite for change.

## INTRODUCTION

Organizational intelligence is a low standard for efficiency of an organization in releasing information, decision-making and implementation. The IQ of organizations is measurable like human beings'. Intelligent organizations enhance their mental power along with physical power. Today, those who are familiar with the competitive state of organizations are well aware of the fact that organizations are changing dramatically. The major pressure for all organizations is the high speed of the introduction of new products to the market and imitation of the same product by the competitors. Organizations that don't haste, they will be removed. Lack of long-term agreements among organizations and employees is also a factor leaving them in the concern about their job status. Today, delegation of authority is different from the past and it is not time for ordering and controlling strictly. All of such challenges made a quite different position for organizations even way different from the last ten years. Why some companies remain in the arena of competition while others are expelled? Why some companies make progress quickly while others can't continue their activity? Why some companies adapt themselves to the changeable conditions of environment while others are disable

to do so? The notion of organizational intelligence is a case in the path of today's organizations and for sure it is going to be critical in the future and attracting and maintaining intelligent people seem necessary in an organization (Albrecht, 2009). The simple fact is that the success of businesses is contingent upon intellectual power of a few of staff with high capability and knowledge. Such people are those who are able to plan, organize, lead, manage, analyze, make concept, make strategies, make decisions, be innovative, teach, recommend and explain ideas. In surviving in the competition with other organizations, this point ought to be taken into account that heads of companies must pay attention to the instructions of management and apply them. One of the vital concepts for this kind of organizations is organizational intelligence. Therefore the aim of this study is to enhance the level of organizational intelligence in knowledge based pharmaceutical companies in order to enhance competitiveness and pursue and achieve organizational goals. Enhancing the level of organizational intelligence result in competitiveness, efficiency in releasing information, decision making and proper implementation in the knowledge based companies.

#### Review of literature

Today, we talk about different kinds of intelligences one of which is organizational intelligence. It makes us competent for

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decision-making. Organizational intelligence means having a comprehensive knowledge about all the influential factors on organizations. Having a deep knowledge of all the factors such as customers, competitors, economic environment, organizational processes and operations have high influence on the quality of management decisions in the organization (Abzari et al. 2006, P.25). We often witness a significant difference between the staff's performance. Some of them do their job eagerly and persistently and have better job performance compared to others, while the others must be pressured for doing minimum work. The quality and effectiveness of management and its function are determining and vital factors for development and welfare in the society. Presently, there are various factors influencing survival of service and industrial units, such factors change quickly and the changes are unpredictable. Most of the organizations work under the same conditions. Organizations must always adapt themselves to the changes. An organization not only changes its situation from time to time but also it is aware of the fact that the phenomenon of change is permanent and its survival will depend upon this procedure in the competitive world (Al Daft, 2011, P. 20). One of the most important capabilities of an organization is the organizational intelligence enhancing the capacity of changing the organization. Organizational intelligence is an ability using all intellectual abilities of organization to attain goal and the mission of organization (Albrecht, 2003, P. 25). The concept of organizational intelligence which is introduced in the recent years attracts scholars' and researchers' attention to the areas of knowledge including management and authorities of the organization. In other words, people who enjoy higher intelligence are more successful than others. Organizational intelligence is a new concept in the management and organizational books.

Researchers investigated organizational intelligence in different views of epistemology such as cognitive, behavioral, social and emotional. Each of these approaches leads to a path to recognize this complicated phenomenon and each of them are complementary for the other approaches for example, while cognitive view emphasizes inner processes and structures such as ability to process information, behavioral view investigates behavioral-environmental connections leading to the conformity of organizational behavior to the environment (Nasabi, 2008, P. 14). In addition to epistemological views, ontological basis of intelligence (whether individual or organizational) causes bewilderment in terms of who or what is in the area of organizational intelligence, as a result of this phenomenon, organizational intelligence is reduced. Organizational intelligence is related to individual intelligence with integration mechanism (organizational intelligence is formed by the accumulation of individual intelligence), transition between surface (individuals' intelligence is interpreted as organizational intelligence) and distribution (organizational intelligence appears in the structural patterns of thought and the interaction between the members of organization) (Sattari, Ghahfarrokhi, 2006, p. 15). Organizational intelligence is a social and group outcome, this means this intelligence is the result of group function of individuals serving as a unit (William, 1998, P.790). Another definition of organizational intelligence, organizational intelligence defines the process of troubleshooting of data collection, processing, interpreting and relating the required technical-political information in decision-making (Wilensky, 2000). The idea and concept of organizational intelligence includes other minor paradigms

such as organizational learning and knowledge management (Yolles, 2005, P. 100).

Pundits found out that individuals and organizations enjoying high organizational intelligence variable have superiority over others in innovation and understanding organizational problems (Macgilchrist, 2004, P. 190). Recent studies in the field of human resources have revealed that the five characteristics of personality, aptitude, interest, intelligence and skill are effective on the advancement of the objectives of organizations, creating job satisfaction, organizational learning, tendency to knowledge, creativity coefficient and evaluating the staff. Today, it can certainly be claimed that identifying and using organizational intelligence can increase the power of competitiveness in an organization and make it distinctive from other organizations. The necessity to investigate organizational intelligence is now responding the current conditions and needs of managers. Taking advantage of organizational intelligence, organizations increase effectiveness of using current information structures along with their goals and the information will be developed from limited and operational form to be used in the executive layers of organizations for managers. Considering the fact that managers work in the organizations that are affected by internal and external environments and they are in need of the power of learning in accountability to their problems like other people. Therefore, the issue of organizational intelligence can help managers in this regard and enable them to be accountable to needs, problems and on time reaction to environmental changes with regard to their organizational memory. Thus, managers need organizational intelligence for the advancement of their organizational goals and achieving them so that they can improve their function by relying on them. Albrecht (2002) introduces organizational intelligence as the capacity and potential of an organization in improving its mental power and focusing that on the realization of the mission of organization. He considers this intelligence as an ability improving mental power of the organization and focusing it on achieving the mission. Albrecht (2003) provides an organizational model (Figure 1) having seven dimensions that include: strategic vision, shared fate, appetite for change, alignment and congruence, spirit, knowledge deployment and performance pressure (Albrecht, 2003, P. 25). Knowledge based pharmaceutical companies are the ones that are active in using innovation and inventing as well as commercializing the results of research and development including (design and production of items and services) in the field of high pharmaceutical technologies with high added value). Such companies are concerned about enhancing organizational intelligence that finally turns into the study issue in this paper. The aim of this study is to investigate components of organizational intelligence in knowledge based pharmaceutical companies using the seven dimension model of Albrecht. In Albrecht's view organizational intelligence falls into the following seven dimensions that are illustrated in the figure:

The organizational intelligence is the capacity of an organization integrating all mental abilities available and focusing them on achieving the mission. Strategic vision: ability to create, deduce and expressing a goal for an organization. Shared fate: feeling to have the same goal among all the members for attempt and function in synergistic form. Appetite for change: adaptability and inclination to change for the realization of strategic vision. Enthusiasm: psychologists consider that as the optional attempt as extra energy of the

members in higher level than what is going to be carried out. Alignment and congruence: existence of systems and series of specified regulations for implementation for people and groups. Applying knowledge: effective use of knowledge, information and data. Performance pressure: each of the executives must have their own executive position (Albrecht, 2003, P. 26). Intelligence as an attractive concept has attracted lots of attention in many fields even the ones outside the area of individual and cognitive psychology. One of the areas showing high interest in intelligence is management and organization. However, this concept is ambiguous for the researchers of organization and management. One of the reasons is lack of strong and coherent theoretical frameworks in this field. On the other hand, despite passage of one decade from the introduction of organizational intelligence, few researches conducted in the knowledge based companies on the aforementioned area. The importance of this study is that if the level of organizational intelligence is low in knowledge based companies, the possibility for development, commercialization and competitiveness will be decreased. Now that we realized the importance of the issue and no research conducted in knowledge based companies, we investigate components of organizational intelligence in such companies.

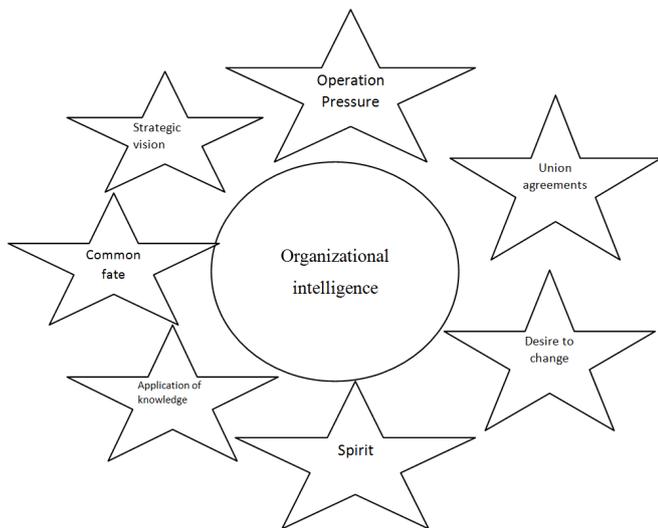


Figure 1. Conceptual model of research (Albrecht, 2003)

### Main hypothesis

Components of organizational intelligence is higher than average among the staff of Welfare Bank of Alborz province (considering the five option spectrum of Likert mean is 3).

### Subsidiary hypotheses of the study

- H1. The factor of strategic vision is higher than average.
- H2. The component of shared fate is higher than average.
- H3. The element of aptitude for change is higher than average.
- H4. The component of sprit is higher than average.
- H5. The factor of alignment and congruence is higher than average.
- H6. The component of application of knowledge is higher than average.
- H7. The factor of performance pressure is higher than average.

### Research Method

The method of the study is been in two section, one was the theoretical study where data's were collected form the library materials like related books and Journals, and the second part which is the most important part of this studywas the collecting of the data through a standard questionnaire which is the most common method for data collection, at the same time statistical population being chosen through simple random bases. Later on we will discuss distribution of statistical sample in terms of organizational position, salary, education, work experience, gender and age.

### Testing main hypothesis of the study

Main hypothesis of the study: intelligence of the staff of knowledge based pharmaceutical companies of Paradise Technology Park is more than average. Therefore, the statistical hypotheses can be written as following:

$$H_0: \mu \leq 3$$

$$H_1: \mu > 3$$

As the results of test revealsin table No. 2, the value of t is significant in the significant level of 0.05 (higher than 1.96). Therefore, null hypothesis is rejected with 95 percent certainty. Thus, the research hypothesis is verified.

### Testing one to seven subsidiary hypotheses

**First hypothesis:** vision of the staff of knowledge based pharmaceutical companies of Paradise Technology Park is higher than average.

**Second hypothesis:** shared fate of the staff of knowledge based pharmaceutical companies of Paradise Technology Park is higher than average.

**Third hypothesis:** appetite for change is higher than average for the staff of knowledge based pharmaceutical companies of Paradise Technology Park.

**Fourth hypothesis:** sprit of the staff of knowledge based pharmaceutical companies of Paradise Technology Park is higher than average.

**Fifth hypothesis:** alignment and congruence ofthe staff of knowledge based pharmaceutical companies of Paradise Technology Park is higher than average.

**Sixth hypothesis:** application of knowledge by the staff of knowledge based pharmaceutical companies of Paradise Technology Park is higher than average.

**Seventh hypothesis:** performance of the staff of knowledge based pharmaceutical companies of Paradise Technology Park is higher than average. For all hypotheses: the following statistical hypotheses can be considered:

$$H_0: \mu \leq 3$$

$$H_1: \mu > 3$$

As the results indicate in table No.3 that the test reveals for all hypotheses, the value of t is significant in the significant level of 0.05 (higher than 1.96). Therefore, null hypothesis is rejected with 95 percent certainty. Thus, the research hypothesis is verified.

**Table 1. Demographic characteristics of the respondents**

Work experience	1 to 5	6 to 10	11 to 15	16 to 20	21 to 25	Higher than 26	Total
Percent of frequency	6	34	48	8	2	2	100
Education	Diploma	A.A	B.A	Higher than M.A	Total		
Frequency	18	18	50	14	100		
Gender	Male	Female	Total				
Frequency	76	24	100				
Age	Under 30	Between 31 and 40	Between 41 and 50	Above 51	Total		
Frequency	8	82	8	2	100		

**Table 2. The results of above-mentioned hypothesis**

Confidence interval at the confidence level of	95 percent	Mean difference	Level of significance	Level of freedom	T
High line	Low line				
0.632	0.552	0.495	0.000	149	11.667
					Organizational intelligence

**Table 3. Single sample of the test**

Single sample of the test						
Theoretical mean-3						
Row	T	Level of freedom	Level of significance	Mean difference	Confidence interval at the level of 95 percent	
The results of the first hypothesis: vision	10.627	148	0.000	0.521	0.642	0.760
The results of the second hypothesis: shared fate	11.333	148	0.000	0.684	0.555	0.793
The results of the third hypothesis: appetite for change	4.567	148	0.000	0.342	0.152	0.385
The results of the fourth hypothesis: sprit	7.556	148	0.000	0.278	0.256	0.485
The results of the fifth hypothesis:	13.345	148	0.000	0.752	0.640	0.864
The results of the sixth hypothesis: application of knowledge	5.345	148	0.000	0.28	0.149	
The results of the seventh hypothesis: performance	4.475	148	0.000	0.480	0.353	0.607

**Table 4. Results of researches in the Organization of Research and Planning**

Components of intelligence of the company	Results of researches in the Organization of Research and Planning	Saipa Plasco Car Company	Knowledge based pharmaceutical companies of Paradise Technology Park
Strategic vision	3.17	4.66	3.64
Shared fate	2.99	4.59	3.67
Appetite for change	2.66	4.46	3.26
Sprit	2.69	4.39	3.37
Alignment and congruence	2.66	4.68	3.75
Applying knowledge	2.73	4.30	3.28
Performance pressure	2.73	4.56	3.48
Company intelligence	2.82	4.52	3.49

## DISCUSSION AND CONCLUSION

The results shown in table No. 4 revealed that the mean of intelligence was 3.49 which was higher than theoretical mean of 3, in addition, Saipa Plasco Car Company was higher than average with the mean of 4.52 compared to the theoretical mean of 4 and the intelligence of the Organization of Research and Planning Education was less than average of 3 with the mean of 2.82. With regard to the results, the component of alignment and congruence in the staff of knowledge based pharmaceutical companies of Paradise Technology Park and Saipa Plasco Car Company has highest mean and appetite for change in knowledge based pharmaceutical companies and applying knowledge in Saipa Plasco Car Company have the lowest mean.

**The results of the subsidiary hypotheses of the study were indicated as following:**

1. First subsidiary hypothesis: the company intelligence of the staff of knowledge based pharmaceutical companies of Paradise Technology Park in the strategic vision is more than average.

This hypothesis was verified using mean test of a population by providing mean of company intelligence as 3.64 that had

been mentioned among the staff of knowledge based pharmaceutical companies of Paradise Technology Park. In fact, strategic vision is the ability to provide and implement goals and prepared strategies and the results suggest revision and continuous investigation of such strategies in the staff of knowledge based pharmaceutical companies of Paradise Technology Park.

2. Second subsidiary hypothesis: intelligence of the staff of knowledge based pharmaceutical companies of Paradise Technology Park in shared fate is higher than average.

This hypothesis was measured using mean test of a population and the results of test (3.67) show its verification. The aim of this hypothesis was the importance of encouraging the staff to have supportive vision toward organization and investigation of goals. Supportive vision is created for attempting synergistically as a result of shared goal among the members. On the other hand, one of the outstanding characteristics of the committed people is emphasizing the fate of organization which is the main area of discussion in shared fate. Results of the study reveal that the staff of knowledge based pharmaceutical companies of Paradise Technology Park put the principle of interference and sharing of the staff in the affairs and their participation in determining and achieving goals of the company, creating successful business teams and

strengthening cooperation among the members, creating job security and the sense of belonging to organization as the radical steps in reaching shared fate.

3. Third subsidiary hypothesis: the company intelligence of the staff of knowledge based pharmaceutical companies of Paradise Technology Park in appetite for change is more than average.

This hypothesis was verified by attaining the mean of 3.26 from testing the mean of a population, as it is observed it has the lowest mean among the components. The aim of this hypothesis also was encouraging progress in high levels that is summed up in appetite for change, interest in taking risk and curiosity and it is the feature of talented and potentially competent people to see to what extent it is available in the staff of knowledge based pharmaceutical companies of Paradise Technology Park. The outcomes of this study manifest that supporting the teams of developing and improving products and services, promoting business processes, encouraging the staff to make familiar and apply new technology and the proposition committees are for getting in line with the changes in the workplace in the staff of knowledge based pharmaceutical companies of Paradise Technology Park.

4. Fourth subsidiary hypothesis: company intelligence is more than average in the staff of knowledge based pharmaceutical companies of Paradise Technology Park in spirit.

This hypothesis was measured using the mean of a population and the results were verified with the mean of 3.37. In this hypothesis the aim was to give spirit to the staff of knowledge based pharmaceutical companies of Paradise Technology Park so that they function with more energy. They have tendency to use this component and their success depends on the success of the organization. Besides, optional attempts of the members of organization in achieving goals of the company is the effect of the above-mentioned encouraging factors.

5. Fifth subsidiary hypothesis: company intelligence is more than average in the staff of knowledge based pharmaceutical companies of Paradise Technology Park in alignment and congruence dimension.

This hypothesis was measured using the mean of a population and the results suggest its verification. With regard to the obtained mean (3.75), it is observed that the state of bank was described favorably in the above cases, but it is still far from the ideal. This hypothesis was mentioned so that it can be the cause of alignment and congruence, the presence of systems and series of specified laws to implement commands for individuals and groups. The outcomes of study reveal that lack of codified laws for executing commands will make lots of problems and disagreement for the working group.

6. Sixth subsidiary hypothesis: company intelligence is more than average in the staff of knowledge based pharmaceutical companies of Paradise Technology Park in the dimension of applying knowledge.

This hypothesis was measured using the test of mean of a population and the results of test (3.28) suggest that the component of applying knowledge has the lowest degree after appetite for change. While acceptable grade was obtained in

this regard, it is far from ideal and requires more attempt of authorities to realize management strategies of knowledge to have a successful organization. The aim of this hypothesis was to investigate the importance and enforceability of knowledge and specialty. No one will be able to do so unless he has what it takes in that field. Assets of knowledge, systems and information technology are useful in the development of company intelligence in the staff of knowledge based pharmaceutical companies of Paradise Technology Park, intelligence is a God-given feature that needs to be strengthened and this requires technical knowledge and applying new and evolved knowledge in the organization.

7. Seventh subsidiary hypothesis: company intelligence is more than average in the staff of knowledge based pharmaceutical companies of Paradise Technology Park in the dimension of performance pressure.

This hypothesis was measured using the mean of a population and the results (3.48) manifest its verification. In this hypothesis we wanted to know if clear understanding of roles and responsibilities by the staff, proper working relationship among the unites, abrupt measures of directors for solving problems, receiving feedback and feeling of being effective for the organization can be factors for developing and promoting company intelligence. Therefore, recognition and promotion of company intelligence must be taken into consideration as a new subject whose reinforcement leads to the success of organization, then we will succeed in making organization attain its vision and mission.

### Conclusion and propositions

According to the findings of research, to develop organizational intelligence the managers of knowledge based pharmaceutical companies must continuously focus on the seven intelligent dimensions of organization. By the same token, the following eight steps are recommended to promote knowledge based companies into intelligent ones:

- Findings of the study reveal that the main verified hypothesis of organizational intelligence with the mean of 3.49 is higher than the theoretical mean of 3. Paying attention to the component of organizational intelligence results in the promotion of company intelligence and finally it leads to the formation of an intelligent company. Thus, it is proposed that the managers of knowledge based pharmaceutical companies put all components of company intelligence, its measurement, periodic investigation and its reevaluation in their agenda.
- Findings of the study reveal that the first verified subsidiary hypothesis with the component of strategic view with the mean of 3.64 is higher than the theoretical mean of 3. This finding manifests that emphasizing strategic vision can contribute to the enhancement of ability to provide and achieve goals and prepared strategies. In this regard, we propose that the managers of knowledge based pharmaceutical companies emphasize the development of this component among the staff. To perform this important task in the dimension of strategic vision: revision and rearrangement of structures compatible with the missions of company and the existence of a compiled

plan are necessary for identification and promotion of managers.

- Findings of the study reveal that the second verified hypothesis has the same fate with the mean of 3.67 which is higher than theoretical mean of 3. Thus, emphasizing this component in the knowledge based companies can cause sympathy among the staff, formation of contribution among them and finally success. Therefore, it is proposed that the managers of such companies take measures to provide a vision to achieve this goal.
- Findings of the study reveal that the third verified subsidiary hypothesis of appetite for change with the mean of 3.26 is higher than theoretical mean of 3. The component of appetite for change has had the lowest amount compared to the other components of organizational intelligence. However, this component has a determining role in the survival and development of organizations. Thus, it is proposed that to develop the component of appetite for change in such companies we should consider developing capabilities such as having inclination to change, creating the situation for accepting change and new ideas at the part of managers, avoiding haste in expelling the managers that don't function well and giving permission to the managers to question current accepted methods. The main priority in this regard is to provide a proper atmosphere and employ leaders who are change-oriented.
- Findings of the study reveal that the fourth verified subsidiary hypothesis with the mean of 3.37 is higher than theoretical mean of 3. Sprit is a component that is in the third place in terms of amount and its promotion is recommended. In the dimension of sprit we need enthusiastic planners who apply all their power to create a good quality for working life and create the opportunity for promotion of the staff for the young generation of the staff of knowledge based pharmaceutical companies of Paradise Technology Park.
- Findings of the study reveal that the fifth verified subsidiary hypothesis with the mean of 3.75 is higher than theoretical mean of 3, this component has the highest amount compared to the other components of company intelligence among the staff and this advantage can be used to enhance ability of the staff. In terms of alignment and congruence it is proposed that the managers give enough responsibilities to deputies and there must be coordination among the goals of different deputies rather than conflict.
- Findings of the study reveal that the sixth verified subsidiary hypothesis with the mean of 3.28 is higher than theoretical mean of 3. Applying knowledge is the lowest component after appetite for change. It is proposed that the managers of knowledge based companies increase that with more emphasis and making the culture. In general, despite measures taken in the dimension of applying knowledge, it is still far from the desirable level. The process of identifying,

classifying, knowledge distribution, power to learn from experiences and memory of the company are weak, so the proper methods of saving and recovery of data has a determining role in improvement of this component.

- Findings of the study reveal that the seventh verified subsidiary hypothesis with the mean of 3.48 is higher than theoretical mean of 3. In the dimension of performance pressure despite the staff's proper understanding of the roles and responsibilities, lack of receiving feedback and on-time action of managers in solving problems are counted as important factors in the reduction of performance and to strengthen this dimension it is proposed that the pharmaceutical companies take the processes of decision-making, policy-making and taking measures for reaching goals serious.

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