

## Relation Between Organizational Intelligence and Organizational Knowledge Management Development

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**Abstract:** This article, studies the relationship between organizational intelligence and organizational knowledge management development. Statistical universe of the research is Fars province Agricultural organization personnel and for collecting data and information, questionnaires are used. Research findings, show a statistical significance between organizational intelligence and organizational knowledge management and also states the significant relationship between much of the organizational intelligence indexes and organizational knowledge management, particular knowledge application that has the most important role. Statistical results also show that how is the relationship between personnel demographical features and organizational intelligence.

**Key words:** Strategic vision • shared fate • tendency for change • union and mutual agreement • enthusiasm • knowledge application • function pressure

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### INTRODUCTION

In today's management, knowledge management has attracted managers' attention and thus, has experienced various disruptions. Managers assign titles such as "superior knowledge manager" for themselves without fully conceiving it's concepts. This issue had become more evident when recently one of these managers showed concerns regarding the necessity of having such managers.

We mostly agree with the Gartner Group definition of knowledge management which states: "knowledge management, is a general approach concerning the identification, management and allotment of the organization's informational possessions". However, in recent conferences, objections were made to this definition. Chief knowledge managers have set forth the questions mentioned below:

- How do modern organizational infrastructures assist knowledge management?
- How can they be used in order to support knowledge management?
- How can advantages be measured?
- How can people be put in knowledge allotment's path?

It seems that knowledge management is facing a conflict. On the one hand we have to convince people that knowledge has eminent value and on the other hand, we want them to share it with others and this is in opposition to humans' innate nature.

It is obvious that such intruding factors cannot be reduced without understanding the extensive area that knowledge management works in and that is "smart organization".

One of the greatest challenges in today's management is creating new generations of smart organizations, organizations in which organizational smartness is a defining factor, a factor that can increase the organizations' revenue if used sufficiently.

### Thus:

- In the first stage managers have to ask themselves how they can perform smartly.
- The next stage is to allow people to think. When even the simplest worker knows his ideas, experiences, insights and suggestions will be heard, we are benefiting from more knowledge than employed initially and a brain power more than what we paid for, is now in our hands.

- Thirdly, is a planned, consistent and unending attack on social stupidity factors. Karl Albrecht [1] states in his rule that when smart people are employed in an organization they have a tendency for communal distaste and group stupidity. Organizations generally harm themselves more than being harmed by their competitors. Lack of performing expertise, inter- company arguments, political struggles in all levels, organizing disorders, meaningless rules and approaches are all schemes for preventing the use of full brain power being paid for.

In Civi’s opinion [2], organizational knowledge is all that employees know about processes, products, services, customers, market and the organization’s competitors.

In a general classification, Bhatt [3] has divided knowledge into two groups: individual and organizational knowledge. Individual knowledge is the knowledge that flows in the individual’s mind and organizational knowledge is the knowledge formed by technological interaction, technologies and people within an organization. Another classification in knowledge exists which also divides it into two groups: implicit and explicit [4]. Implicit knowledge is an organized knowledge with a fixed content and it’s distribution and complement is by applying information technology and coding. Explicit knowledge is personal, cognitive and dependant on the text and exists in people’s mind, behavior and perceptions. This knowledge is the inferior level of the knowledge iceberg.

Malhotra [5] believes that knowledge management consists of organizational processes in search of a synergic combination of data processing capacity and information by information technology and the creativity capacity of individuals. In Bukowitz and William’s opinion [6], knowledge management is a process in which the organization can produce value and wealth by gaining advantage from it’s mental and knowledge based possessions.

Chong and his colleagues [7] state that knowledge management is the process of applying skills and abilities of people within an organization, whom are supported by information technology.

Meso and Smith [8] believe that the knowledge management system is a system that improves and elevates organizational learning through facilitating exchange and distributing knowledge.

Since people are the most important factors in organizational knowledge management, assessing their

Table 1: Comparison between IQ and OI

Function	Humans	Organizations
Measurement	Intelligence Quotient (IQ)	Organizational IQ
Information Technology	Personal IT Systems	Organizational IT Systems
Structure	Network of Nerve Cells	Network of Business Units
Subjective filter	Personal Values & Beliefs	Organization Culture
External Linkages	Social Relations	Stakeholder Relations
Knowledge Store	Memory	Knowledge Management
Strategy Formation	Problem-Solving	Strategic Processes
Direction	Ego	Leader
Guidance	Vision	Mission
Decision-Making	Choice	Strategy
Conger System	Id	Information Organization
Routine Decisions	Autonomous Nervous System	Policies and Procedures
Knowledge Gain		
Single-Loop Learning	Education & Action	Training & Action
System Improvement (Double-Loop Learning)	Personal Change	Organizational Change

complex behavioral aspects is particularly valuable. One of these aspects is intelligence and their intelligence quotient (IQ) which is the main factor in forming organizational intelligence (OI). The comparison between IQ and OI has shown in Table 1.

Elain Mosrie Mikesall [9], in her research by the name of “Organizational intelligence and Vitality: A systematic framework for organizational renewal”, addresses the important issue of assessing and potentially improving an organization’s ability to adapt and renew itself.

William E. Halal [10], worked on Organizational intelligence and how managers can use it to improve performance and recognizes five organizational subsystems which were organizational structure, organizational culture, stakeholder relationships, strategic processes and knowledge management.

Albrecht’s paper by the name of “ Organizational intelligence and knowledge management: Thinking outside the silos”, mentions four key enablers of organizational intelligence which are Thought leaders, Communities of interests, Ad-hocracies and knowledge platform.

On the basis of previous research, a conceptual framework based on studies and interviewing managers ad critics, has been introduced for organizational and individual intelligence, which will be mentioned subsequently.

On mathematical perspectives organizational intelligence is:

Available brain power (the sum of individuals' IQ)- Entropy (chaos)+ Syntropy (synergy), [11].

**Entropy:** means that an organization pays for all of the IQ of each and every individual, while only using a percentage of that and this consists of the organization's first tax.

**Syntropy:** when people with various IQ's work together, the resulting synergy can be used and instead of adding IQ's paid for, be multiplied together. Thus we have a higher IQ than what we initially paid for.

Yolles [12] believes the concept and idea of organizational intelligence have minor paradigms such as organizational learning and knowledge management. David and James Matheson [13] state that the performance chance in smart organizations compared to organizations with lower organizational IQ is five times as much. However, Albrecht mentions three factors affecting work success which are smart individual, smart team and smart organization. He states that when smart people gather in an organization they tend towards group stupidity and dullness.

He uses the title organizational intelligence for preventing and answering group dullness as follows: organizational intelligence is an organization's talent and capacity in activating the organization's mental ability and congregating this ability towards the organization's final goal. Albrecht's main emphasis in the organizational intelligence issue is on the employees' mental power.

Now that the most intelligent organizations believe: "It's never good enough", organizations have to gain more advantage than what they are paying for through applying factors such as organizational intelligence and knowledge management.

Considering the new issue of organizational intelligence and its importance within the organization and also undone research about its relationship with knowledge management, its measurement necessity and trying to improve and expand in the organization is important and considering the importance of organizational knowledge management development, understanding the relation between these two, is an important step towards the organizations development.

**Organizational intelligence and knowledge management:** Organizational individuals are factors that knowledge

and information transfer at all levels depend on. So, overcoming all obstacles and creating incentive is crucial and vital.

In today's complex world where only knowledge and information can solve its obscurities, it's obvious that strengthen the organization in confronting issues of knowledge management is of importance and because the organization's existence key is in the hands of smart organizational individuals, thus, in the age of information and communication, organizations' intelligence is determining in this worldwide competition. Similar Allen Rading's [14] classification of organizational intelligence, Albrecht also mentioned seven dimensions for organizational intelligence:

**1) Strategic outlook:** This means the capability to create, conclude and explain an organization's goal.

**2) Shared fate:** When all members of an organization are involved in work they know what the organization's aim and mission is. Thus, by feeling a shared fate, each and every one of the individuals understand the organization's success and inevitably they can act synergically for achieving the specific outlook.

**3) Appetite for change:** Some organizational cultures guide their performing teams. In these cultures function method, thought and reaction of all individuals regarding the environment is so similar that any change can be the start of an illness or even a chaos. But in other cultures, change can be a sign of challenge and gaining experience and is exciting for everyone. In other words, it's a chance for starting a new work or activity. In such environments people think the need for recreating work role models are an exciting challenge that provides a circumstance for success. Of course tendency for change has to adapt with needed changes for fulfilling the strategic outlook.

**4) Alignment and congruence:** Without an existing set of rule to perform, any group will come across many difficulties and disagreements in continuing a task. Individuals and teams have to organize themselves for goal fulfillment and organizational mission and divide responsibilities and tasks and create a set of rules for interacting and communicating with others and confronting the environment. Eventually, any imagined organizational structure will impose restrictions and straits on the whole set for higher cooperation. In a smart organization, systems have come together to enable individuals in fulfilling missions.

**5) Heart:** When we contemplate on a worker's work life quality and concentrate on a worker's feeling towards work and management, a concept called enthusiasm forms in our minds. In other words, feeling pride, performing tasks with enthusiasm and optimism and the managers' belief and commitment are characteristics that affect organizational intelligence and are related to enthusiasm.

**6) Knowledge deployment:** Nowadays, effective use of knowledge, information and data, determines the success or failure of an organization. With a wider look on current changes it can be stated that information technology considering knowledge management means applying related knowledge, together with creating the culture of valuable mental and informational resource use. At this stage it's better to introduce knowledge application as a humanistic opinion than a technological and structural theory.

**7) Performance pressure:** For managers being just involved in functions is not enough. In a smart organization, all executive managers have to be in their own professional position and also support it. However this is most effective when aligned under an effective set of mutual expectancies and functional necessity. For success Josef Haddad [15] has also classified knowledge management into four groups of knowledge creation, knowledge establishment and knowledge allotment.

So in this article by dividing knowledge management into four components and organizational intelligence into seven components, it has been tried to assess the relationship between organizational intelligence and knowledge management. Therefore research hypotheses have been compiled as follows:

#### **Research Question and Hypotheses**

**Main hypothesis:** Organizational intelligence is related to knowledge management development.

#### **Minor hypotheses:**

- Strategic outlook is related to knowledge management development.
- Shared fate is related to knowledge management development.
- Appetite for change is related to knowledge management development.
- Union and mutual agreement are related to knowledge management.

- Heart is related to knowledge management development.
- Knowledge deployment is related to knowledge management development.
- Performance pressure is related to knowledge management development.

Apart from the above mentioned hypotheses this research is in search of answers to the following questions:

- Are there any relation between workers' demographic characteristics and organizational intelligence?
- How much is each organizational intelligence component's share in knowledge management development?

#### **MATERIALS AND METHODS**

Regarding the method of gathering data, the present research is unexperimental, descriptive-analytic and correlative. The statistical universe of this research are 2820 employees of Fars province Agricultural Organization during the year 2007.

For research samples, Cochran's method with 0.08 error was used, 150 people of this society were chosen and finally after applied moderation 141 people were assessed as samples.

This research's measurement tools, consists of Albrecht's organizational intelligence scale and Haddad's knowledge management.

Albrecht's organizational intelligence scale consists of 49 phrases on the basis of Likert's spectrum and the seven components of strategic outlook, shared fate, tendency for change, union and mutual agreement, enthusiasm, knowledge application and function pressure. The questions' validity is accepted by related professors and the tool reliability which in previous research was 0.93 using Cronbach's Alfa, after evaluation Chronobach's Alfa coefficient in the evaluated society was 0.89, which shows the desired reliability of this survey. Concerning Haddad's knowledge management scale which consists of 21 phrases on the basis of Likert's spectrum and four components it can be stated that the tool validity has been confirmed by experts of this science and for determining the survey's reliability, Cronbach's Alfa method has been used which is 0.79.

For analyzing data the following methods were used: Correlation analysis, regression analysis, one way Anova analysis, post Hoc analysis and Independent groups T- test.

**RESULTS AND DISCUSSION**

In this research, Cochran's formula is used for research statistical sample which is:

$$n = t^2pq/d^2$$

- t: The variables rate in a normal distribution which is 1.96 in this research.
- P: The characteristics distribution percentage in the society, which here is 0.5.
- Q: Percentage of people lacking the studied characteristic, which is 0.5 here.
- D: real characteristic ratio difference, which is 0.8 in this research.

After applied calculations, 150 people were obtained as samples under assessment, which was reduced to 141 people.

After collecting data and assessing it through SPSS software, the organizational intelligence mean of the assessed sample was 179. This is acceptable according to Albrecht's classification, but it doesn't mean the organizational intelligence of the sample group is ideal. Rather it means that for increasing the organizational intelligence of this organization appropriate measures have to be taken.

**Experimenting research hypothesis:** For experimenting the above hypothesis Pearson's correlation coefficient was used and the following results were achieved:

**Knowledge explains that:** as shown in the chart above between organizational intelligence and knowledge management there is a meaning-ful relationship, in a way that the shown correlation coefficient is 0.931 and is meaningful at the 0.001 level. Experimenting minor hypothesis also shows a close relationship between the two variables.

Table 2: Correlation coefficient between organizational intelligence and knowledge management

Organizational intelligent	Km
Pearson correlation	0.931**
N	141

\*\* p < %1

Considering the statistically significant relationship between organizational intelligence and knowledge management, we will now assess organizational intelligence and knowledge management's components which are introduced in the form of minor hypothesis.

**1) Strategic outlook is related to knowledge management:** Considering the achieved results Pearson's correlation coefficient level was 0.032 and at the meaningful level of 0.705 and because this amount is more than 0.05 of the permitted error this hypothesis is rejected.

**2) Shared fate is related to knowledge management:** Considering achieved results Pearson's correlation coefficient was 0.032 and at the meaningful level of 0.797 which confirms this hypothesis.

**3) Appetite for change is related to knowledge management:** With obtained results Pearson's correlation coefficient was 0.031 and at the meaningful level of 0.63 and because this amount is more than 0.05 of the permitted error, refutes this hypothesis.

**4) Alignment and congruence are related to knowledge management:** Considering obtained results, Pearson's correlation coefficient was 0.644 and at the meaningful level of 0.00,1 which confirms this hypothesis.

**5) Heart is related to knowledge management:** Considering obtained results Pearson's correlation coefficient was 0.856 and at the meaningful level of 0.001, which confirms this hypothesis.

**6) Knowledge deployment is related to knowledge management:** Considering obtained results Pearson's correlation coefficient was 0.705 and at the meaningful level of 0.001, which also confirms this hypothesis.

**7) Performance pressure is related to Knowledge management:** Considering obtained results Pearson's correlation coefficient was 0.220 and at the meaningful level of 0.01 which also confirms this hypothesis.

**Research Questions:** 1) Is there any meaningful relation between employees' demographic characteristics and organizational intelligence?

For answering this question. Three statistical tests, were used which consist of Pearson's correlation coefficient, T group independent tests and one way Anova analysis.

Table 3: Correlation coefficient between organizational intelligent and years of service

Organizational intelligent	Km
Pearson's correlation	0.368**
N	141

\*\* P < %1

Table 4: Organizational intelligent status corresponds to labor sex

Sex	N	Mean	St.Diviation
Female	10	173.8	13.41
Male	131	180.02	15.76

Table 5: Independent T-Test

T	Df	Sig
1.214	139	0.227

Table 6: One way Anova analysis

	Sum of square	d.f	Mean of square	F
Between group	10923.988	3	3641.329	21.346**
Within group	2337.324	137	170.586	
Total	13261.312	140		

\*\*P < %1

Table 7: post- Hoc Analysis

	Mean difference	Standard error	Sig
Diploma/Master's degree	28.7846	4.7366	0.001
Advanced Diploma	25.4028	4.7442	0.001
Bachelor's degree	11.5968	4.8813	0.1

Table 8: Regression analysis

R	R <sup>2</sup>	R <sup>2</sup> Residual	F	Sig
0.948	0.898	0.893	167.993	0.001

Table 9: Regression coefficient analysis of organizational intelligence components

	B	T	Sig
Constant	5.44	1.64	0.05
Strategic outlook	0.228	3.72	0.001
Shared fate	0.491	3.88	0.001
Appetite for change	0.213	2.16	0.032
Heart	0.328	2.88	0.005
Alignment and congruence	0.299	4.81	0.001
Knowledge deployment	0.727	9.10	0.001
Performance pressure	0.541	4.88	0.01

1-1) In evaluating the relationship between years of service and organizational intelligence Pearson's correlation coefficient was used and the following results were obtained:

1-2) In evaluating the gender difference in organizational intelligence t group independent tests were used and the following results were obtained:

1-3) In evaluating different educational levels in organizational intelligence, one way Anova analysis was used and the following results were obtained:

Considering the above chart there is meaningful difference between educational levels and organizational intelligence and because of the nature of one way Anova analysis real difference between different educations in organizational intelligence is not shown and this test only expresses general differences.

Thus, for evaluating occurred differences in different educational levels, post Hoc tests were used and the results are as follows:

Considering the above chart real differences in one way Anova analysis is resulted from the difference between the organizational intelligence of those who have M.A degrees and those who have diplomas and advanced diplomas.

2) How much is each organizational intelligence component's share in knowledge management development?

For answering this question, regression analysis test with Enter method was used and the results on the seven organizational intelligence components are as follows:

Considering the obtained results almost 89 percent of existing changes in knowledge management are defined by organizational intelligence components and the existing regression, considering the observed level and it's meaningful level, will be a meaningful regression.

Considering the above results each organizational intelligence component's share as independent components in determining organizational knowledge management (as a dependent component) is as follows:

- knowledge deployment (0.727)
- Performance pressure (0.541)
- Shared fate (0.491)
- Heart (0.328)
- Alignment and congruence (0.299)
- Strategic outlook (0.288)
- Appetite for change (0.213)

Based on obtained results from statistical tests interesting results are achieved as follows:

Considering the analytic framework of the present research, what is obtained from this research is as follows:

The first result obtained from the research's main hypothesis is that considering organizational intelligence as a factor related to organizational knowledge, is completely correct.

According to obtained results in secondary theories, we can conclude that except the first and third components or organizational intelligence, an existence of a meaningful relationship between organizational intelligence components and organizational knowledge, shows the prediction power of organizational knowledge management.

The result obtained from assessing the relationship between employee's characteristics and their organizational intelligence in answer to the research's first question, shows that work experience and educational level, unlike gender, can predict the level of organizational intelligence. However, follow-up tests show that the organizational intelligence of people who have a master degree is much more than those who have a diploma or advanced diploma, but there is little difference between this group and those who have a bachelor's degree.

The last point is that about 89% of existing changes in knowledge management is defined by organizational intelligence components that shows the existence or relationship between organizational intelligence and knowledge management development.

**Analyzing research findings:** Although there is a lot of emphasis on strategic outlook in today's world, the findings of this research show that the studied society knows this factor to be unimportant. This can also mean that either they were not informed by the organization or they did not participate in this process and therefore do not care about it.

Fortunately, considering knowledge deployment in explaining organizational knowledge management, we can see the highest percentage and this shows that the society of the research are completely aware of the importance of organizational knowledge management.

Regarding shared fate, mentioning this point is enough that the first result of understanding it by organizational individuals is "group work" which is an important element in achieving organizational aims and this society has a good share for it in organizational knowledge management.

The spirit of people within an organization, can create exceptional creating abilities and in some cases unfulfilled general organizational expectations. Considering its importance and sensitivity in an organization or even the society, unfortunately, in this research's society, it has little share in defining knowledge management.

In today's complex world, the importance of structural changes in the organization according to environmental changes, can not be denied. However, as expected in our statistical society, it has the lowest share.

Alignment and congruence in this research don't have much share and they have normal elements in the statistical society's opinion. This is while, as you have noticed, this factor make response ability to environmental changes and adapting to them possible and therefore makes the organization dynamic.

So, this research shows that organizational intelligence development in an organization is related to knowledge management development. Therefore, it has some suggestions as below:

Managers commitment and the worker's contribution in order to diminish resistance to change and performing more studies and assessments.

Granting authority and license to employees for designing strategic outlooks by the organizational managers, through using methods such as management by objectives (MBO).

Trying to improve employee's spirit by applying motivational tools.

Cleaning the worker's mind relating the necessity to reach organizational objectives as the individual's common destiny, by designing and applying systems that fulfill organizational goals with regards to individual goals.

According to the theory that the more hard the goal is hard to reach it (if possible), more motivation between employees is caused. The necessity of paying attention to goals within an organization is a step towards positive use of performance pressure regarding organizational aims.

He large share regarded for knowledge application by this society, shows that the target society is completely aware that "Action speaks for themselves" and this can be a guide for managers put obtained education to use and prove their worthiness, instead of collecting documents as a sign or worthiness.

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