

## Relationship Between Organizational Structure Dimensions and Knowledge Management (KM) in Educational Organization

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**Abstract:** This study evaluates the relation between organizational structure and knowledge management in Iran ministry of Education's organizational units. Stephen.P.Robbins model is used for measuring organizational dimensions including formality, complexity and focus. Main Elements of knowledge management consist of 8 blocks: aim, acquisition, gain, sharing, development, knowledge maintenance, knowledge utilization and knowledge assessment which are determined based on model from Probst, Rub, Ramhart. The population of this research is all of the Iran ministry of Education's organizational units employees in Razavi khorasan province of Iran. According to the sampling methods, we chose 90 individuals as the sample and we carried out a survey by the means of knowledge management questionnaire and standard questionnaire of Robin's structure among this sample. After collecting and analyzing data based on correlation coefficient of Pierson, the results clearly showed that there is a meaningful relation between organizational structure dimensions and knowledge management. In addition, we found out there is a relation between organizational formality and knowledge management. Moreover, there is a relation between organizational focus and knowledge management. The last recognized result was the relation between organizational complexity and knowledge management.

**Key words:** Knowledge management • Structural dimensions • Educational organization

### INTRODUCTION

Educational organization<sup>1</sup> as the most effective organization in cultural, social and economical development of each country, must match itself with new standards of the world and effective indicators for organizational improvement to reach long term goals of a country. Organizational knowledge, as the most important improvement source and organizational expansion, as a valuable and invisible wealth, provide a valuable opportunity to promote quantity and quality indicators of all organizations. The most important problem in an organization is the large amount of information and knowledge in organizations which managers need them, but they are not available at a needful time or there is no capability to recall them. It seems that it must be examined in depth and obstructive elements must be detected in this field. Although we know that knowledge is the main wealth of an organization that must be detected and acquired in all around of the organization and also we know that knowledge is an endless source from destructible resources of organization that provide

possibility of growth, development and survival of organization among world formidable competitions.

Knowledge management is a new viewpoint for organization which believes that if organizations want to be successful, they must access to knowledge and have a deep understanding of it in all layers. Today, knowledge management rush to develop its domain on organizations and we can observe newer and more applicable models of knowledge management, however, many organizations do not consider knowledge management and it seems that there is no meaningful and organizational movement in this field especially in educational organizations.

In one hand, based on previous studies about KM and its related factors, it is clear that social factors affects KM [1]. It also can be distinguished from the researches carried out at Ernest&Young center that KM helps organizations to improve their service quality and increase their organizational empowerment. In addition, the results of relevant studies confirm that KM is an important factor in governmental organizations [2]. Furthermore, Rikans and Mc. Oyli proved in their researches in 2005 that network structure can influence knowledge [3].

On the other hand, Iranian researchers also focused on this matter in the recent years. Takabi's studies about structural dimensions about the KM in Zamiaad manufacturing company at 2007 showed a relation between organizational complexity, formality, focus and KM [4]. Moreover, in a study about KM implementation parameters which was done in 2009, it was strongly confirmed that organizational structure has a meaningful role in KM implementation process [5]. Fathollahi (2010) also proved in his research that organizational structure and organization processes have an important role in KM implementation [6].

Consequently and regarding previous studies, we will evaluate the relation between organizational structure dimensions and Km in educational organizations.

**Organizational Dimensions:** Organizations have special characteristics that make them to understandable and comparable. Content dimensions indicate whole organizational and structural dimensions and also state internal characteristics of an organization. They provide a basis for organization which make it measurable and comparable [7].

**Structural Dimensions Characteristics Are:**

**Formality:** It tries to set a standard for duties. When the level of formality increases, then description of specified rules and regulations would be great and clear instructions for job process is available.

**Concentration:** It relates to levels of hierarchy authorities that could make decisions. If the head make most of decisions in organization, organization will be centralized. In decentralized organizations more power is vested in to inferiors and such decisions are made in lower layers.

**Complexity:** The amount of separation which exists in an organization and it is categorized in to 3 categories: horizontal separation, Vertical separation, Geographical separation.

**Tendency to Expertise (Specialization):** It divides works and affairs to expert duties.

**Hierarchy:** It defines that everyone should report their work to their superior who will be defined by vertical lines in organization chart.

**Setting Standard:** It defines similar duties in organization with a similar and alike style.

**Professionalism:** The level of formal education of personnel. To compare organizations in this case, the average of personnel education years will be measured.

**Personnel Ratios:** It states the ratio of people who employ in different divisions. According to these characteristics, the limitation of every organization structure would be between two kind of mechanic samples and organic samples. In mechanic sample which is administered by one chief (bureaucracy); works are formal and information network is limited and works are divided into divisions, in such an organization, inferior employers can not participate in decision-making process. In other way, there is another formation which is called organic and the structure of this formation is widely and horizontally spread and including teams whose members are expert and belong different levels of organization [8].

Robins believes that expertise, professionalism and hierarchy are related to complexity for different job situation make relations slow and puts management in difficulty to coordinate their activities. Increasing levels of organization hierarchy, vertical separation of organization raise and organization complexity would be more [8].

In this study, organizational structure dimensions are comprehensive from Robins point of view and compromise all other structural dimensions like formality, concentration and complexity are independent variant elements of study and they are the basis of this study as organizational structure indicators.

**Knowledge Management:** There are a lot of definitions for knowledge management that everyone was according to that organization's tasting. There are strategies and processes to create, determine, gain, organize and administer knowledge information to make people capable. People have the most valuable knowledge in organization but they don't tend to share it because they worry about losing their influence and control [9].

According to T.M Koulopoulos, knowledge management is map road to understand applications better and useful strategies to fulfill education aims. This map determines people who execute its steps and it describes how they relate to each other, it also presents necessary potential to make revolutionary changes in organizations. Knowledge management theory leads activities to fulfill desired aims [10].

Knowledge management is an interfiled major and its emphasis on knowledge distinguishes it from other management viewpoints. Knowledge compromises the identity and nature of knowledge management [11].

Knowledge management is discovery, gain, develop and creation, maintaining, assessment and utilization of suitable knowledge at a suitable time by a proper person in organization that will be done by creating a relation between personnel, IT and connections and making a proper structural to fulfill organization's aims [11].

Probest, Rob and Ramhart define knowledge management as a process including selecting aims, recognizing, sharing and utilization of knowledge and recent definition is the most useful definition [12].

**KM Importance in Educational Organization:** Educational organization is one of the most important organizations of any country and special clients of this organization are infants and adolescents who make the future generation of men and women and their large population, cultural and geographical variant show the importance and big responsibility of this organization in comparison to other organizations [13]. This great and full responsibility needs a powerful organization with exact organization and scholar managers and worthy administrators to take this huge boat with all of travelers to its destination safely [14]. It is certainly true that managers can not lead this broad and huge organization lonely and they need preliminaries and facilities and after all personnel who must be capable, skillful, elite and knowledgeable. Educational organization could fulfill its lofty aims only when all abovementioned matters cooperate with each other and with knowledge of day basis, make this dream true and preliminary for this important affairs would be the special attention of officials, proper strategies to develop education and enough budget [13].

Education related organization is an organization that majority of society members and maybe whole country are its beneficiary, so problems and deficiencies in this organization will harm all the society. There are some problems which needs high ambition of managers and employers cooperation and those are some uninterested and negative viewpoint of managers, no updating in organization equipment and personnel, bureaucracy, high populated classes, wasting time in traditional schools, boring schedules, personnel welfare, retirement of elite employers, general lectures without enough new information, different distance and complication of organization, less opportunities for teachers relations and many other important problems [15].

Fortunately, there is necessary knowledge and ability inside educational organization for this change and this is managers duty to use it when they gain related knowledge. Only a knowledge manager can use organizational knowledge. As education is decided to

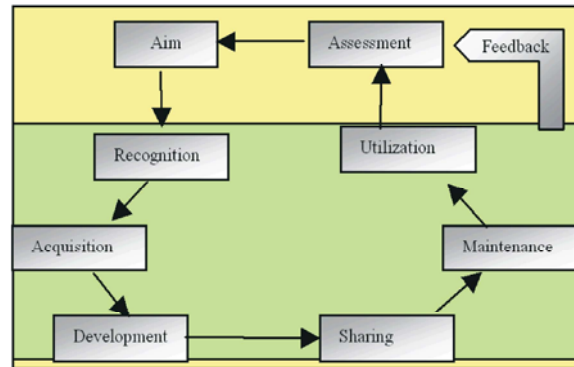


Fig. 1: Model of Structural Basis (Probest, 2003)

fulfill the aims of long term plans of the country like other institutions, educational organization could be successful with managers of great insights and stamina.

**Structural Model Based on KM:** This model is on the basis of Probest, Rub and Ramhart; and it compromises two sectors - internal cycle and outside cycle - which always turn. The complementary sector is feedback. (Fig. 1).

**Aim:** It determines the levels of strategies & applications.

**Knowledge Recognition:** This is the first phase including wide range of activities like detection, people absorbing, supporting and encouraging.

**Acquisition:** In this phase knowledge must be collected and gained through internal and external sources like knowledge of managers, experts, authorities and other external resources like radio and television, non-profit schools, education masters etc.

**Development:** Including educating capabilities, abilities, improving quality of educating, creating variety for processes and services of educational organization etc.

**Sharing:** It includes knowledge sharing and knowledge transition from individuals to group and organization.

**Knowledge Utilization:** Using actions as authority conferment, decentralization, changing individual decision to group decision making, to get Paperless, satisfaction, process updating, to do scientific activities, to get virtual.

**Knowledge Storage:** Maintenance and Knowledge updating prevent from ruin knowledge.

**Knowledge Assessment:** In this step, all steps and contents will be evaluated.

Undoubtedly, knowledge in Khorasan Razavie educational organization is considered as the most powerful resources like other organizations; and it exists in hidden or visible units of organization, in processes and trends, skills and activities, directives and instructions, offices, schools, classrooms, assembly and associations, dialogues and discussions. Knowledge development and sharing would be a great masterpiece in organization and organization attains its goal; superior managers and even all managers and scholar employers should do this task to facilitate the usages of knowledge in collaboration and after that they can see its surprising results [16].

It is hard to manage something untouchable like knowledge, but the physical, cultural and more important structural conditions must be prepared. Those organizations would be successful that prepare underground and design a suitable structures.

Due to the fact that educational organization is a knowledge-based organization and it plays an important role with providing and developing knowledge and on the other hand, the excessive speed of science, knowledge and technology make other countries embarrassed and this make a kind of ambiguity for future among society and educational organization and parents, maybe they cannot find a proper procedure of educating, so with respect to these problems, we will tend to recognize and gain opinions and experiences of managers and scholar employers but unfortunately we sometimes have difficulty to reach and find out them or we do not have a direct connection with them. Most of professional and expert personnel of educational organization prosper from society knowledge and high relationship, but there are some threats, weaknesses and lacks in vertical and horizontal, formal and informal relation that must be treated for solving internal and external problems of organization quickly.

Educational organization has to find any possible barrier in using knowledge management with collaboration of managers and their commitment and obligation for change. Astonishing results of these changes and reforms, in addition to solving problems of clients, satisfying parents and making society happy, is very effective to satisfy and encourage employers and teachers [7]. Therefore it is extremely important to consider substructures of knowledge especially the most important one that is organizational structure. As the organization gains and recognize knowledge, it also needs to prepare preliminaries and knowledge substructures, especially in

organizations that are full of relations whether formal or informal. So senior managers must consider organizational structure and they must pay attention to make proper organic structures for pioneer organizations and modern internal organization relations in planning and strategies of organization.

As we know if a job is very formal, the liberty of that person will be very little in doing activities of that job and when it must be done and how it must be done. In this condition, there is an expectation that employers always do their job with a firm style and they will get the same results. So when the formality of job is high, there are determined descriptions for job, a lot of regulations and clear instructions about job process in organization. When the formality is low, employers' behaviors could be without planning comparatively. In this condition, people are freer to use their viewpoint on their job.

Regarding that education organization is an organization with an average formality, as it is less formal than hospitals and army and more formal than factories and as its correlation is 0.57, it could be concluded that managers must have some priorities such as consideration to high quality of upcoming scientist of education organization, problems of formality, like creation and easiness of formal laws and regulations about innovation for education organization, issuing clear and exact instructions for all personnel of office and education for sharing and using and finally knowledge assessment.

It seems that educational organization of Khorasan Razavie must prepare some laws and bills to make employers remove obstacles for their capabilities and skill fast and easy and they take an action to gain knowledge and develop their skill with more motivation and interest, also scholars share their knowledge without disturbance and worries and no fear for losing control.

On the other side, setting standard for processes and duties, education and office activities etc was forgotten in education organization for a while. High falling of education and the repetition rate in educating grades demonstrate the low quality of educations. So this is very important that senior managers of organization consider setting standard for internal organization operations in organizational planning and strategies and they must mention teachers and office workers to oblige instructions of job improvement and education setting standard with doing assessment and assessing employers activities and emphasis on standards.

We know that centralization shows the levels of decision making, in centralized organizations, senior managers and those who are head of organization make the most important decisions of organization.

These decisions are made in lower levels in decentralized organizations. The more managers trust their inferiors the more entrusting to inferiors would be and finally there would be no centralization in organization. When making decision by a unit affect more on other units operations, then sharing amount of other units in decision-making would be higher and this will pave the way for organizational decentralization.

Because the main reason for survival and continuance of any organization is utilizing knowledge as a merit and what plays role in increasing knowledge basis and using knowledge is entrusting and sharing of managers and operational employers, so more centralization is a barrier for creations and talents, experiences and knowledge of employers. The more centralization has the low knowledge management. Actually what distinguish creative and knowledge based organizations from other organizations is decentralization that prepare personnel to do effective, creative and innovative of knowledge tasks and better knowledge administrative by managers.

Therefore in Educational organization of Khorasan Razavie, there must be decentralization to improve the knowledge management condition and doing its processes and they must use trends like sharing management, sharing decision-making, considering to groups and team-making, entrusting and no monopoly in information and knowledge.

Although Educational organization is widely complicated from geography and space viewpoint and its units disperse in different parts of province, however, because complication has no effect on knowledge management, units' dispersion or low or high hierarchy could not play an important role on knowledge management.

**Research Hypothesis:** In this research we focused on a main hypothesis and some secondary hypothesizes which are mentioned below.

**Main Hypothesis:** There is a relation between “organizational structure dimensions” and KM in Khorasan Razavi educational organization.

**Secondary Hypothesises:** There is a relation between “organizational formality” and KM in Khorasan Razavi educational organization.

There is a relation between “organizational complexity” and KM in Khorasan Razavi educational organization.

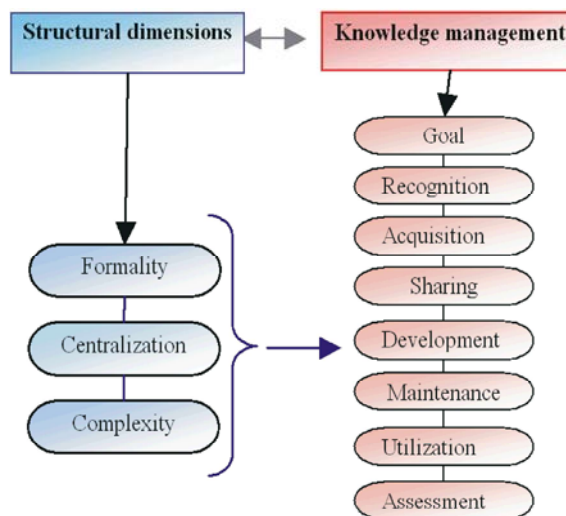


Fig. 2: Research theoretical framework

There is a relation between “organizational focus” and KM in Khorasan Razavi educational organization.

**Theoretical Framework for Research:** Research theoretical framework is based on fig 2. In fact structural dimensions and structural organization are the most important and effective factors on knowledge management.

**Research Tools:** Robins standard questionnaire and Researcher-made questionnaire is used to measure variable of structural dimensions and knowledge management respectively. Allowance of pre-tested instructional dimensions and allowance of knowledge management was superficial.

Cronbakh alpha test was used to assess questionnaire validity. Amount of alpha for KM questionnaire was 0.95 and for structural dimensions was 0.86.

According to the sampling methods, we chose 90 individuals as the sample and we carried out a survey by the means of knowledge management questionnaire and standard questionnaire of Robin’s structure among this sample.

## RESULTS AND DISCUSSION

Instructional dimensions variable in education organization of Khorasan Razavie has reached a relative low mark with considering response average of 2.80. Reaching average mark of 3.0.1 by formality norm will show that formality variable is normal.

Table 1: Descriptive statistical of structural dimensions of organization

	Sum	Mean	Std. deviation	Variance
Structural Dimensions	261.04	2.90	0.29	0.15
Formality	271.25	3.01	0.64	0.41
Concentration	294.77	3.28	0.40	0.16
Complexity	258.57	2.87	0.13	0.016

Table 2: Descriptive statistical of KM in educational organization

KM valuable	Sum	Mean	Std. deviation	Variance
Knowledge management	259.79	2.89	0.49	0.24
Aim	269.25	2.99	0.66	0.43
Recognition	226.25	2.51	0.62	0.39
Acquisition	252.20	2.80	0.61	0.37
Development	252.27	2.80	0.61	0.37
Sharing	257.56	2.86	0.53	0.29
Maintenance	274.40	3.05	0.64	0.41
Utilization	270.70	3.01	0.55	0.30
Assessment	275.99	3.07	0.62	0.39

Table 3: Coefficient of correlation of structural dimensions and knowledge management

Knowledge management				Structural dimensions
	Formality	Centralization	Complexity	
Coefficient of correlation	0.57	-0.37	0.151	0.67
P- value	0.000	0.000	0.156	0.000
Relationship kind	Direct relationship	indirect relationship	Without relationship	Direct relationship

And concentration in organization got a high mark with considering response average of 3.28. Average mark of complexity variable is 2.87.

Average mark of knowledge management is 2.89 which are lower than normal. Deviation shows that most people assess Knowledge management lower than normal. First norm of knowledge management is “knowledge purposes”. Average marks of purposes are 2.99 that is lower than normal. Average of responses for questions of “knowledge recognition” norm is 2.51 which are lower than normal. “Knowledge acquisition” reached average makes of 2.80 which are lower than normal. Another factor of knowledge management is “Knowledge sharing”. Average of people responses for its questions is 2.86 which are lower than normal. “Knowledge maintenance” is another factor of knowledge management. Average of people responses for its questions is 3.05 which are higher than normal.

Another norm of knowledge management is “utilization”. Average of people responses for its questions is 3.01 which are almost normal. Average of “knowledge assessment” is 3.07 which is a little higher than normal.

**Statistical Deduction:** Main hypothesis of research: there is a relationship between instructional dimensions and knowledge management.

Pearson correlation coefficient between instructional dimensions variable and knowledge management is 0.67 and meaningful level of Pearson correlation coefficient test is 0.000 which is lower than 0.05, so there is a meaningful direct relation between instructional dimensions and knowledge management in education organization in Khorasan Razavi province.

Discussion and interpretation: as education organization is a knowledge based organization which plays a major role in country development and extension with knowledge production and future scientists educating, on the other hand some people and countries are puzzled by amazing speed of science, knowledge and technology and some kind of ambiguity for future was created in whole society and education organization and parents and they might not recognize the right approach and educating samples, so considering these problems, it unconsciously leads us to recognize and reach the opinions and experiences of scholar personnel and managers which we sometimes have difficulties to reach

them, we don't know them or we don't have a direct access to them, unfortunately, it is true that most professional and expert personnel of education are good in social knowledge and relation knowledge but in vertical and horizontal relation, formal and informal, threatens, weaknesses are existed which must be considered to solve the internal and outside problems of organization.

Khorasan Razavie education organization have to consider what is a barrier for knowledge management and knowledge creation and knowledge sharing with coordination of its all managers and their commitment for change. The amazing results of these charges and reforms in addition to solve the problem of client, satisfaction and trust of parents and happiness of society, it is very efficient in satisfaction and maturation of personnel and teachers. Therefore it is very important to consider the substructures of knowledge specially the most important one. That is, organization structural and as knowledge acquisition and recognition need to make preliminaries and knowledge substructures, organizations full of relations, whether formal or in formal. So senior managers should regard to structural dimensions of organization and there must be considered to create organic structures which is suitable for leading organization and internal relations of nowadays modern organizations in organization strategies and planning.

First secondary hypothesis of research: there is a relation between formality and knowledge management.

Conclusion: there is a relation and positive correlation of 0.57 between formality and knowledge management. This correlation was achieved between variable in statistics sample. We can conclude with statistics calculation that zero assumption is refused and researcher's claim was confirmed. Therefore the result would be: with 99% confidence, there is a relation between formality aspect and knowledge management in education organization.

Discussion and interpretation: as we know, formality refers to the amount of organizations duties which are standardized. If a duty benefits from high formality, someone who is in charge of it, is very limited to do its activities and he doesn't know what time should it be done. In this manner, it expects personnel do their duties with a determined why that will lead to pre-determined outcomes. So when the formality is high, there are duties description, many rules and regulations and clear instruction about job process in organization. Where the formality is low, personnel behavior can be relatively unperformed. In this situation, people have more free to apply their view points in their duties.

Regarding that, education organization is an organization with relative average formality as its formality is lower than or my organizations and hospitals as more than factories and considering correlation relation of knowledge management with formality which is 0.57, it could be concluded that to produce more knowledge and high quality of education organization for future generation scientists, regarding problem of formality such as making and facilitating rules and official regulations about innovations, suggestion, making knowledge bases, information distribution and scholar's view points in education organization, scholar's support and creating clear and careful instructions for office and training personal for knowledge recognition, knowledge acquisition knowledge development and sharing, knowledge utilization and finally knowledge assessment must be done.

It seems that education organization of Khorasan Razavie must make some rules for personal to remove barriers of ability and skill easy and fast and they become interested in knowledge in acquisition and skill development and without any stress for knowledge sharing scholars share their knowledge with no fear of losing control.

Unfortunately, it was forgotten for a while to set standard for processes and duties, educating and office activities, in education organization. So it is so important for senior managers of organization to consider internal operation setting standard in planning and strategies of organization and they need to provide teacher and office personnel's consideration to work improving instructions and education standard setting with assessing and measurement of personnel's activities and emphasize on standards.

Second miner hypothesis of research: there is a negative relation between centralization dimension and knowledge management.

## CONCLUSION

There is a relation and negative correlation (- 0.37) between concentration dimension and knowledge management. Because Value-P is less than 0.05, so zero assumption is refused and researcher's claim is confirmed.

So we concluded that: There is a meaningful research relation between centralization and knowledge management in education organization of Khorasan Razavie.

**Discussion and Interpretation:** As concentration shows the decision makers levels in organization, in centralized organization, senior managers and these who are in key position. Make the most important decision of organization. In decentralization organization, these decisions are made in lower level. The more manager trust inferiors, the more vesting power to inferiors; and finally decentralization would be made in organization. If decision making of a unit influence on other units operations, amount of other units sharing would be more in decision making and this provide back ground for decentralization of organization.

Because utilization of knowledge as superior merit is a condition for survival of any organization and resting power and managers sharing and operational personnel are what play a role to increase knowledge based and knowledge utilization, So increasing concentration is a barrier for using innovations, talents, experiences and knowledge of personnel. The more concentration has the lower knowledge management. Actually what distinguishes innovative and knowledge-based organizations from other organizations are decentralization management that prepares personnel for effective duty, innovative and better management for knowledge by managers.

There fore, in Khorasan Razavie education organization, there is a necessity for decentralization to improve knowledge management. And they must use sharing management, sharing decision making, regarding groups and team making, vesting power and no monopoly in information and knowledge.

Third secondary hypothesis research: there is relation between complexity and knowledge management.

Conclusion: according to achieved results from Pearson actual coefficient correlation, relation between complexity and knowledge managements 0.149. Because Value-P is higher than 0.05, so zero assumption (H0) is confirmed and researcher's claim is refused. Therefore, we can result that there is no meaningful relation between complexity and knowledge management in Khorasan Razavie education organization.

Organization complexity refers to separation a mount in organization and divided to three categories: horizontal (the amount of separation between organization units). Vertical (the height of organization hierarchy), geographical (dispersion of units and facilities and people)so, though Khorasan Razavie education organization have space and geographical complexities

and its units are dispersed in different regions in province, however, because complexity has no impact on knowledge management, so unit dispersion and /or low or high hierarchy has no considerable impact on knowledge management.

**Research Suggestions:** Related suggestions for one secondary hypothesis: based of get result from this hypothesis, suggest to managers, planners, educational organization decision makers:

Severe and autocratic laws and regulations that are on the way of knowledge management and the obstacle for doing knowledge processes and knowledge cycle in organization must be removed or corrected. Distinct jobs legends not only don't disorder at the knowledge management, but also it cause knowledge management improvement. In the jobs legend (exposition) must attention to knowledge activities specially.

Related suggestions for two secondary hypotheses: based of get result from this hypothesis, suggest to managers, planners, educational organization decision makers: As the condition of survival and searching for organizations is making use of organizational knowledge, so all obstacles and disturbances that created for organizational centralization in knowledge management must be removed and devolve or delegate (power & authority) to a lower level, especially from central organization to local or regional administration or schools managers.

**And Develop Self-running and Self-Controlling**

Related suggestions for one secondary hypothesis: based of get result from this hypothesis, suggest to managers, planners, educational organization decision makers: Structural complication can not be an obstacle for knowledge management, even; we can use current complications best, because dispersion of employers in different areas and urban and rural schools provide great amount of experience and storage of knowledge that managers can use it and spread their experiences in other organizations.

Related suggestions for main hypothesis: based of get result from this hypothesis, suggest to managers, planners, educational organization decision makers: This is the first step toward knowledge management that we should use the simplest and cheapest change and this change is nothing other than structural dimensions.



**Research Limitations:** There were several limitations for the researchers that reduced the speed of research processes and took a lot of time to be solved. From that pool of problems and limitations, the limitation of human attitude complexity can be mentioned which caused that the population members do not answer the questionnaire carefully. In this case, researchers increased the population members' sensitivity to the questionnaire.

Another limitation in the research was population dispersion which increased the research time. In addition, time limitation was another problem that researchers faced. Moreover, the limitation of relevant resources, references and previous studies was one of the major limitations in this study.

### REFERENCES

1. Afrazeh, Abbas, 2006. knowledge management for concepts of measurement and landing models, Tehran, Amirkabir Publication.
2. Hasanzadeh, Mohamad, 2007. knowledge management: concepts and substructures, Tehran, Ketabdar Publication.
3. Yougesh Mahutra, 2007. knowledge, assessment and measurement, Mohamad Hasanzadeh, Tehran, Ketabdar Publication.
4. Prost, Gilbert, *et al.* 2006 Knowledge management, Ali Hoseinkhah, Tehran, Seitaron Publication.
5. Adli Fariba, 2003. knowledge management a movement toward to beyond knowledge, Tehran, Farashenakhtie Andisheh Publication.
6. Robins, Stephen Publication. 2006. organizational behavior: organization, Ali Parsaeeian and Aarabie, vol. 1,2,3, ninth edition, Tehran, pagooheshhaye Farhangie Office.
7. Queng, M.D., 2005. Knowledge management in four steps, translated by: Afsaneh Hazerie and Maryam Sarafzadeh, second issue, fifth course of e-magazine by information Pagooheshgah and scientific documents of Iran "nama".
8. Fathian, Mohamad, Leila Beig and Atefe Ghavamie far, 2005. role of knowledge management for updating new generation of research and development, Tehran, Modirsaz Monthly.
9. Ali mohamadloo, Moslem, 2004. knowledge management and talents, Tadbir, pp: 147.
10. But, Ganeb, D., 2007. knowledge management in organization, inspection of mutual technology, techniques and humanity, inform scientific publication, Eighteenth Period, pp: 1-2.
11. Bagavad Gita, 2001. Knowledge management: function and challenges, Azarie Mehrdad, Tadbir Magazine, pp: 114.
12. Fathian, mohamad and Leila Beig, 2005. Role of knowledge management in creation and innovation, Tadbir, pp: 164.
13. Karimie, Neda, 2006. Knowledge management, nowadays organizations need, nama magazine- issue 3, sixth period Bahman.
14. Entehaei, alireza, 2002. Delivering suggested model for knowledge management in special libraries which are depend on guiding and culture ministry on Tehran, master thesis. Azad university, Tehran Shomal Unit.,
15. Moshirian, Hamid, 2005. Model of knowledge management in Fajr industrial group. Master thesis. Industrial university of Malek-e- Ashtar, university complex of IT, Relations and Security.
16. Khansarie, Jeiran, 2005. Inspection the situation of knowledge management in specialized libraries and delivering suggested model, doctoral thesis. Azad university, Researches Sciences Unit.