

**A FEASIBILITY STUDY OF IMPLEMENTING KNOWLEDGE MANAGEMENT  
A CASE STUDY OF NATIONAL IRANIAN OIL PRODUCTS DISTRIBUTION COMPANY (NIOPDC) IN  
ZAHEDAN REGION**

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**ABSTRACT:** Less comprehensive studies have been conducted on feasibility of implementing knowledge management than on knowledge management itself; and on the other hand it is through studying key factors of knowledge management success that necessary dimensions of implementation can be identified and moving towards implementation can occur. Thus, the aim of the present study is studying the feasibility of implementing knowledge management in National Iranian Oil Products Distribution Company in Zahedan region from different cultural, structural and technological aspects. In terms of aim, the present study is applied and in terms of the way data are collected, this study is descriptive and of survey type. Based on the subject of the study one general hypothesis and based on the dimensions of theoretical framework three specific hypothesis have been proposed. The population of this study is all employees of National Iranian Oil Products Distribution Company in Zahedan region and 120 individuals were selected as sample from the population by simple random sampling method and by using Morgan's table. Questionnaire has been used for collecting necessary data in this study. For data analysis chi-square statistical test and for ranking dimensions Friedman's variance analysis has been used. The results of the study indicated that implementing knowledge management in the aforementioned company from different cultural, structural and technological aspects is possible. Also, based on the findings, cultural dimension had the highest ranking in implementation which means that implementing in that company in terms of organizational culture has the highest feasibility. Of course, balanced growth of the aspects should be taken into consideration. Thus, it can be said that governments has started extensive actions in this regard and this is paid attention to by government officials too and at the end of the study some suggestions were provided for reinforcing implementation dimensions based on the results of the study.

**KEYWORDS:** knowledge management, conceptual model, Iran case study

**INTRODUCTION**

The issues facing organizations such as competition and gaining competitive advantage in national and even international fields, globalization and international trade and communication have created challenges for them. The governmental sector similar to non-governmental organizations should face these challenges too and should use the opportunities obtained from globalization, knowledge-centered economy and finally knowledge-centered organizations in the best possible way; or else this would mean losing the opportunities proposed by knowledge management (Lindner and Wald, 2011). It is vital for an organization to understand the concept of knowledge management well when beginning knowledge management actions. Substantial direction changing for implementing knowledge-centered organizations is not easily possible; choosing the right tools and techniques and structures that are utilized consistently and that are more

appropriate for achieving objectives are considered as factors in succeeding in implementation of knowledge management. Based on various models of knowledge management and its key factors, a conceptual model has been provided. Thus, the study of feasibility of implementing knowledge management can be done from three aspects of organizational culture, structure and technology. Of course, it should not be forgotten that first we should create a close bond between organizational strategy and knowledge management strategy (Kim et al., 2014). If organizational culture is not defined well, in other words if a proper mental state is not created in employees and managers of an organization and there is no cooperation and interaction culture in it or a proper structure or technology that can implement knowledge management processes does not exist, no result will be gained from knowledge management system.

This paper has been dedicated to discussion and interpretation of the results of measurement and findings of the study so that a clear picture of the findings of the study is obtained and so that the results are more explicit. In addition, the aim is to provide necessary background for the overall conclusion of the study and to combine the findings with theory.

## FINDINGS

The present study is presented in the two sections of findings as the results of descriptive statistics and findings based on testing hypotheses and answering research questions.

### 2.1. Descriptive statistics

A high percentage (62.5%) of the respondents has Associate and Bachelor's degree and only 20% has higher education degrees.

Most of the respondents have supervisor and expert organizational positions thus they have enough experience and skill regarding the role and importance of knowledge.

The job experience of the employees has a high dispersion.

### 2.2. Chi-square test

This study has one general hypothesis and three minor hypotheses and the study of the four hypotheses have been verified by chi-square test in 95% confidence level thus the possibility of implementing knowledge management in terms of three aspects of organizational culture, structure and technology exists. Therefore, it can be said that governments has started extensive actions in this regard and this is paid attention to by government officials too. Now based on the obtained statistics, we elaborate on the findings of testing each hypothesis:

**Secondary hypothesis 1:** implementing knowledge management in National Iranian Oil Products Distribution Company in Zahedan region is feasible from organizational culture dimension.

The value of the statistic is 93.8 which is higher than 7.815 in chi-square table and the significance of this difference can be confirmed based on the calculated significance level for the test statistic which is lower than 0.05; because based on this, in 95% confidence level the null hypothesis can be rejected and it can be said that from the viewpoints of the respondents implanting knowledge management is culturally feasible.

**Secondary hypothesis 2:** implementing knowledge management in National Iranian Oil Products Distribution Company in Zahedan

region is feasible from organizational structure dimension.

The value of the statistic is 64.46 which is higher than 7.815 in chi-square table and the significance of this difference can be confirmed based on the calculated significance level for the test statistic which is lower than 0.05; because based on this, in 95% confidence level the null hypothesis can be rejected and it can be said that from the viewpoints of the respondents implanting knowledge management is structurally feasible.

**Secondary hypothesis 3:** implementing knowledge management in National Iranian Oil Products Distribution Company in Zahedan region is feasible from organizational technology dimension.

The value of the statistic is 73.53 which is higher than 7.815 in chi-square table and the significance of this difference can be confirmed based on the calculated significance level for the test statistic which is lower than 0.05; because based on this, in 95% confidence level the null hypothesis can be rejected and it can be said that from the viewpoints of the respondents implanting knowledge management is technologically feasible.

**Main hypothesis:** implementing knowledge management in National Iranian Oil Products Distribution Company in Zahedan region is feasible.

The value of the statistic is 73.53 which is higher than 7.815 in chi-square table and the significance of this difference can be confirmed based on the calculated significance level for the test statistic which is lower than 0.05; because based on this, in 95% confidence level the null hypothesis can be rejected and it can be said that from the viewpoints of the respondents implanting knowledge in National Iranian Oil Products Distribution Company in Zahedan region is feasible. On the other hand this conclusion can be made based on the conformation of the three secondary hypotheses too. Based on literature, for developing a knowledge management system and achieving its objectives in organization first, an organizational culture is needed so that the activities become knowledge-centered in that organization and the employees of that organization are turned into knowledge-centered employees which means that a culture supporting knowledge management is created which values knowledge and encourages its distribution, creation and application; second, an appropriate organizational structure is needed so that the communication is not restricted to

team, group, or even organizational boundaries and the free flow of information, knowledge and ideas exists, the working structure and atmosphere is in a way that individuals can communicate in an informal atmosphere and without disturbing others and without limitation, the meetings are managed in a way that never an individual is dominant on the meeting and free and multilateral communication with participation of everyone exists; and third, the importance of technology (information) as a main foundation-crating for knowledge management is taken into consideration in a way that this infrastructure makes possible the collecting, saving and exchanging knowledge fast and in a large scale that was not possible in the pacts and thus it helps in creating knowledge. This infrastructure makes easy communication possible for employees and through verification of study hypotheses it is confirmed that National Iranian Oil Products Distribution Company in Zahedan region has the potentiality of implementing knowledge management in terms of organizational culture, structure and technology dimensions.

Of course the importance of bond between organizational strategy and knowledge management strategy and also intimate cooperation of high rank management, the management support in financial, personnel and technical resource fields and enough educational opportunities and encouragement systems still remains.

### 2.3. Friedman's variance analysis test

As the conditions for establishing knowledge management in terms of the three dimensions of organizational culture, structure and technology is available in the aforementioned organization, for ranking each of these factors in that organization using Friedman's test the researcher concluded that the three dimensions of establishing knowledge management in National Iranian Oil Products Distribution Company in Zahedan region according to priority are as follow:

- Culture
- Technology
- Structure

As the highest ranking of means is related to culture, it can be said that the feasibility of establishing knowledge management is higher in terms of organizational culture thus, that company can be more confident in terms of cultural aspect for establishing knowledge management and it should pay more attention to technological and structural dimensions and reinforce their components.

## CONCLUSION

Although implementing knowledge management in governmental and non-governmental organizations will have good achievements, most organizations have neglected it and delayed its implementation. Organizational factors of culture, structure and technology as the key factors in success of knowledge management can be paid attention to in implementing knowledge management ([Patočková, 2012](#)). Thus, the present study in National Iranian Oil Products Distribution Company in Zahedan region was after investigating these backgrounds for implementing knowledge management. The analysis of the findings related to research question indicated that from the viewpoints of the studied population the conditions for implementing knowledge management is available in terms of the three different dimensions of culture, organizational structure and information and communication technology as the factors in the success of knowledge management in that company ([Belhaddioui and Knouzi, 2014](#)). Thus, for benefiting from the numerous and useful advantages of knowledge management quick actions for implementing it should be taken. Also, through the comparison of different dimensions of the feasibility study of implementing knowledge management in the studied company it can be concluded that the conditions are more favorable in terms of organizational culture in a way that the highest mean of ranking was related to culture and the second ranking was related to technology and the next one was related to structure. In another words, the components of organizational culture including trust, sincerity, organizational learning, the feeling of mutual dependency between the employees, innovation and creativity, the spirit of cooperation and sharing knowledge, the support of senior management and the importance of experienced employees provide the best conditions for implementation of knowledge management ([Li and Jin, 2014](#)). Thus, the results of this study help National Iranian Oil Products Distribution Company in Zahedan region to have a correct understanding of the three dimensions of organizational culture, structure and technology in implementing knowledge management and to use effective and efficient strategic programs for preparing for implementation of knowledge management using various tools through observing the priorities of these dimensions and paying attention to the balanced growth of the aspects together; and to step towards turning the adopted plans in to practice based on multivariate indicators related to the three

identified dimensions and thus making the implementation of knowledge management feasible. Therefore, based on the findings of this study it can be said that National Iranian Oil Products Distribution Company in Zahedan region specifically, and other organizations generally, should pay attention to reinforcing organizational culture, structure and technology for implementing knowledge management.

Based on the results of data analysis, it can be accepted that there is complete consistency between the results of this study and the results of previous studies by other researchers who have studied subjects regarding organizational culture, structure and technology of information and communication as the key factors in implementing knowledge management ([Jamalzadeh, 2012](#)). The differentiating aspect of the present study compared to other studies is the comprehensiveness of the dimensions and components of the conceptual model as in the present study which has documented review of the literature, the conditions of implementing knowledge management (summarized in three dimensions and six components) that researchers and experts have paid attention to, have been used and studied. Also, regarding the study of the feasibility of knowledge management no comprehensive work had been done previously and it was paid attention to in this study as the main objective.

### SUGGESTIONS

Based on the verification of the hypotheses (the existence of conditions for implementation of knowledge management) and above conclusions, the aforementioned organization can reinforce the aspects for implementing knowledge management using various tools beside paying attention to the balanced growth of the aspects together; and to step towards turning the adopted plans in to practice based on multivariate indicators related to the three identified dimensions and thus making the implementation of knowledge management feasible. Thus, in line with the findings of the study some suggestions are provided for the aforementioned organization based on the three dimensions for implementing knowledge management:

Based on the first secondary hypothesis of the study the culture supporting knowledge management exists and it has a better position compared to the other two aspects. Now, for balanced reinforcement and growth of this aspect several points are recommended:

- The employees should witness valuing others for their knowledge and they should know that the organization needs their specialized

help. Also the feeling should be created in the employees that they are still valuable after sharing their knowledge with others

- The awareness to the benefits of knowledge management should be improved in such a way that simultaneously as they believe that knowledge is power, they should understand that sharing knowledge is power too.
- The organization needs creative cultural nurturing in which the employees are always encouraged to create new ideas and knowledge. In another words, freedom and initiatives should exist in the organization.

Based on the second secondary hypothesis, cultural conditions exist too but they are in a lower ranking to the cultural dimension. Thus, some suggestions are provided in this regard.

- Holding specialized courses for making the employees familiar with information and communication technology and providing necessary facilities for using this technology.
- Information should be gained on high communication abilities and organizational technology cooperation.
- The access to knowledge resources by employees, beneficiaries and others should be investigated.

Also based on the results of the third secondary hypothesis it was verified that structural conditions exist too but in ranking based on Friedman's test it was determined that this dimension is in the lowest position compared to cultural and structural aspects, thus for improvement of the conditions for implementing knowledge management some suggestions are provided.

- Under the president of the company or "organizational knowledge management unit" an independent organizational unit should be created under its departments so that the strategies based on knowledge are placed line with the organization's strategy and the company is turned into a learning organization by comprehensive planning.
- For preventing the exit of organizational knowledge through the retirement of knowledge employees that have high professional and specialized skill, it is necessary that the organization utilize these individuals as knowledge advisors for transferring their knowledge to managers and working employees.
- Using experienced knowledge management advisors and creating change groups for implementing knowledge management.
- Creating research and development center and providing financial resources for these units.

- It should be tried to obtain knowledge resources from inside the organization and outside the organization and to develop and save them.
- It should be tried to asses and refine the obtained knowledge and to produce appropriate knowledge.
- For success in implementing knowledge management the organization should recruit knowledgeable individuals that have high level of education and expertise.
- Developing colleague groups. These groups are the focus of the knowledge of an organization in which a group of individuals with similar working responsibilities create, share and utilize knowledge without being officially a member of a working group. Culture should encourage group activities.
- A motivation system should be created so that the employees are rewarded in proportion to their participation in implementing organizational knowledge management processes in various organizational levels.
- For encouraging employees to participate and for effective activities in organizational knowledge management processes, it should be tried to choose a model manager and employee in each unit and to appreciate them in proper manner.

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