



# Investigating the Dimensions and Components of Knowledge-Based Decision Making in Iranian National Tax Administration

*Hamidreza Shahidi Bonjar<sup>1</sup>, Sanjar Salajegheh<sup>2\*</sup>, Masoud Pourkiani<sup>3</sup>, Saeed Sayadi<sup>4</sup>*

<sup>1</sup> *Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran*

<sup>2\*</sup> *Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran*  
<https://orcid.org/0000-0002-3412-6731>, Email: [s.salajeghe@iauk.ac.ir](mailto:s.salajeghe@iauk.ac.ir)

<sup>3</sup> *Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran*

<sup>4</sup> *Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran*

## Abstract

The purpose of this study was to investigate the status of knowledge-based decision-making dimensions in the Iranian National Tax Administration. The present study is applied, and a survey method is used. The statistical population of the present study was comprised of 2115 senior, basic and middle managers of the Iranian National Tax Administration. The sample size was estimated to be 325 people based on Cochran formula who were selected by stratified random sampling. To collect the data, a questionnaire of 69 questions with a 5-point Likert-scale from completely inappropriate to completely appropriate was used. The conceptual and face validity of the research questionnaire was evaluated and approved by 15 experts. The content validity ratio or CVR of the questionnaire was calculated by 0.93.8 by 15 experts and university professors. Cronbach's alpha coefficient was estimated at 94.6, which was higher than 0.7, indicating the internal consistency of the items and confirming the reliability. One-sample t-test using SPSS software was used for data analysis. The significance level of the test (0.000) was smaller than the significance level (0.05), so considering the mean of variables of knowledge-based decision making (3.519), functional factors (3.572), behavioral factors (3.639), attitudinal factors (3.297), motivational factors (3.503), and structural factors (3.542) which were above the base mean (3), the variables were in a desirable condition. The mean of the variables indicated that this amount is not high enough to indicate that the variables of knowledge-based decision making are being well applied in these organizations. Therefore, planning is needed in this regard.

**Keywords:** Attitudinal and Behavioral factors, Functional factors, Knowledge-based decision making, Motivational factors, Structural factors.

## Introduction

Today's changing world requires organizations to look for new tools for survival, one of the tools that can help organizations reach these goals is knowledge-based decision making. Knowledge-based decision making is a process that helps organizations find, select,

organize, and disseminate important information. And it is a specialty which is applicable for activities such as problem-solving, dynamic teaching and decision making to review their policies and formulate and announce supportive and mandatory policies to guide employees in applying knowledge management indicators and components, including utilizing

knowledge resources out of organizations, giving importance to doing research in the field of decision-making, gathering the experiences of the organizational individuals for making better decisions, and establishing databases for supporting decision-making and ... . Knowledge-based decision making was first seen in 1970 in the works of outstanding individuals, such as Peter Drake, Paul Sterlus, and Peter Senge, and about ten years later in 1980, Everett Rogers introduced knowledge-based decision making as a precious means of competing within organizations (Amiri, 2018). Nowadays, organizations work hard to be recognized as pioneers of knowledge management skills and thereby, obtain the results of their attempts and efforts. This is possible through applying knowledge for innovation purposes. Today, in leading organizations, knowledge-based decision-making is recognized as an empowering element that can transform an organization in a way that it can deliver great productivity and efficiency capabilities. Accordingly, (Asam Kish, 2019) declares that knowledge management is the ability to acquire, maintain, and selectively access the best work-related knowledge practices and the decision-making of employees and managers for group and public behaviors (Sauk Hau & Kang, 2016). (Barzegar 2013) also believes that knowledge-based decision making can help organizations find, select, organize, distribute and transfer information and expertise necessary for activities such as problem-solving, learning, dynamic, strategic planning and decision making in important organizational affairs. (Pajouhan & Amir Kabiri, 2011) states that knowledge-based decision-making enables organizations to act smarter and conduct their organizational processes faster and more efficiently, due to reducing the need to re-create solutions, a lot of money can be

saved by organizations (Dargahi et al, 2018). Nowadays, with increasing emphasis on knowledge-based organizations rather than production-oriented organizations, knowledge management and its related decisions are considered to be important factors in organizations, and having up-to-date knowledge and information has become an indispensable necessity for the lives of organizations. Therefore, managers of organizations should emphasize on their knowledge-based decisions and make more reasonable decisions to enhance their organizational performance and ensure their survival (David 2018). Given that knowledge-based decision making is one of the significant and effective subjects in every organization and the problem that some of the managers of organizations currently face is how to make knowledge-based decision to accelerate organizational innovation. To this end, managers of organizations can transform their power-intensive technologies into knowledge-based technologies by making knowledge-based decisions and ensuring the survival of the organization.

Therefore, the purpose of this paper is to investigate the status of dimensions and components of knowledge-based decision-making in the Iranian National Tax Administration.

## **Research Methodology**

The present study is applied in terms of purpose and a survey method is used. The statistical population of the present study is comprised of senior, middle and basic managers of the Iranian National Tax Administration (2115 persons). The sample size was estimated 325 people based on Cochran formula who were selected by stratified random sampling. A questionnaire



was used for collecting data. Based on previous studies, the research literature has consisted of 5 components of knowledge-based decision making: Functional factors including (team work and cooperation, questions 1-3), (thinking and analysis, questions 4-6), (use of new technologies , Questions 7-9), (Beliefs, Questions 10-12), (Self-confidence, Questions 13-15), (Risk taking, Questions 16-18); Behavioral factors including: (specialized knowledge, Questions 19-21), (Problem Recognition, Questions 22-24), (Leadership style, Questions 25-27), (Independence, Questions 28-30); Attitudinal factors include: (Culture of work and innovation, Questions 31-33), (Future orientation, Questions 34-36), (Planning for future challenges, Questions 37-39), (Changing organizational issues and decision-making power, Questions 40-42); Motivational factors including (Payment and wage, questions 43-45), (Organizational incentives, Questions 46-48 ), (Reward System, Questions 49-51); Structural factors including (Sense of responsibility and social commitment in the workplace, Questions

52-54), (Workplace information knowledge, Questions 55-57), (Appropriate teaching practices for applying ideas, questions 58-60), (Organizational culture, questions 61-63), (Organizational structure, questions 64-66), (Organizational atmosphere, questions 67-69) which are measured using a 69-item questionnaire, and the score on a 5-point Likert scale ranging from completely inappropriate to completely appropriate given by the subjects indicates the status of knowledge-based decision making in the study population. Content validity ratio or CVR of the questionnaire was calculated to be 0.93.8 by 15 experts and university professors. Cronbach's alpha coefficient was estimated to be 94.6, which was higher than 0.7, indicating the internal consistency of the items and confirming the reliability. One-sample t-test using SPSS software was used for data analysis.

### Research Findings

Research Hypothesis: The status of knowledge-based decision making variable and its components is desirable.

**Table 1. Status of knowledge-based decision-making variable**

Variable	Mean	t-statistic	Significance level
Knowledge- based decision making	3/519	21/069	0/000
Functional factors	3/572	17/413	0/000
Behavioral factors	3/639	18/637	0/000
Attitudinal factors	3/297	6/409	0/000
Motivational factors	3/501	14/212	0/000
Structural factors	3/542	19/421	0/000

As indicated in (Table 1), since the p-value (0.000) is smaller than the significance level of (0.05), the null hypothesis is rejected. In

other words, according to the mean obtained for the variables, the variables were in the desirable condition.

Table 2. Status of the research variables based on the sample t-test outputs

Variable	Mean	t-statistic	Significance level	Lower limit	Upper limit
team work and cooperation	3.513	13.917	0.000	0.440	0.585
thinking and analysis	3.566	12.397	0.000	0.476	0.656
use of new technologies	3.467	11/184	0.000	0.385	0.549
Beliefs	3.508	10.440	0.000	0.412	0.603
Self-confidence	3.598	12.592	0.000	0.505	0.691
Risk taking	3.788	18.665	0.000	0.696	0.861
specialized knowledge	3.305	6.225	0.000	0.208	0.401
Problem Recognition	3.624	14.888	0.000	0.541	0.706
Leadership style	3.724	17.166	0.000	0.641	0.807
Independence	3.905	22.703	0.000	0.830	0.980
Culture of work and innovation	3.665	15.851	0.000	0.582	0.747
Future orientation	3.120	2.470	0.014	0.024	0.216
Planning for future challenges	3.356	۷,۹۳۱	0.000	0.268	0.444
Changing organizational issues and decision-making power	3.049	0.826	0.039	0.068	0.166
Payment and wage	3.372	8.611	0.000	0.387	0.457
Organizational incentives	3.411	10.550	0.000	0.235	0.488
Reward System	3.724	16.725	0.000	0.639	0.809
Sense of responsibility and social commitment in the workplace	3.536	10.764	0.000	0.438	0.634
Workplace information knowledge	3.467	10.762	0.000	0.381	0.552
Appropriate teaching practices for applying ideas	3.715	16.750	0.000	0.631	0.799
Organizational culture	3.442	11.366	0.000	0.366	0.519
Organizational structure	3.570	12.135	0.000	0.478	0.663
Organizational atmosphere	3.521	14.025	0.000	0.448	0.594

As shown in (Table 2), since the p-value is less than the significance level of (0.05), the null hypothesis is rejected. In other words, considering the mean obtained for all 23

indicators of knowledge-based decision-making variable, it can be declared that the status of all indicators is desirable.

### Discussion and Conclusion

As the variable of knowledge-based decision-making dimensions and components has a significance level of less than (0.05), Iranian National Tax Administration is in a desirable condition, but this is not high enough to claim that knowledge-based decision-making dimensions and components are being well applied. These results are consistent with the findings of (Mactaggart, 2016) and (Molan, 2017) Decision making is an important part

of every human life because we have to decide when making choices. Decision making is considered as a central part of the processes in the organization and it is regarded as the main task of managers at all levels so that some experts believe that management is all decision making. Organizations constantly make decisions. Decision making is what managers do in different levels of organization and move in its atmosphere. But the point which is important in decision making and changes



the destiny of the organization is knowledge-based decisions of the managers, and these managers make these decisions based on their knowledge and experience and shape the bright future of the organization. It is not only decision making which is important but the knowledge along with decision; more importantly, making knowledge-based decisions by managers is of greater importance for the future of the organization, and therefore plays a constructive and important role in the bright future of the organization.

As the significance level of the mean of the variables of functional factors in the Iranian tax administration is less than (0.05), which is above the base mean of 3.00 indicating that it is in a desirable condition, but it is not high enough to claim that the functional factors are being well applied in these organizations. These results are in line with the findings of Pajouhan and Amir (Sandra, 2016). Decision-making, along with having an organizational impact, has an individual impact, too. The quality of a manager's decisions is related to his or her professional success and sense of satisfaction. Apt decisions not only help the organization but also make the decision maker feel to be more efficient and satisfied with their decision making, and the most important factor in achieving this is the knowledge-based decisions of managers. Because of this, managers' knowledge-based decisions are made in a rational way, which include all the benefits of the organization as well as the people working in it, so it can be stated that knowledge-based decisions are the basis and foundation of establishing a strong and leading organization in the organizational realm.

Regarding the evaluation of behavioral factors in the Iranian National Tax Administration, it was found to be at the significance level of less than (0.05) which

is greater than the base mean of 3.00 indicating that they are in a good condition, but it is not high enough to claim that that the behavioral factors are being well applied in these organizations. These results are consistent with the findings of (Barzegar, 2013) Knowledge-based decision making is choosing the right, logical, and preconceived solution among a number of options in a preventive behavior in order to achieve a specific goal with the least risk possible and representing the way to achieve the organizational goals. Therefore, knowledge-based decisions can be made by managers as the best option for the success of organizations and individual employees.

At the significant level less than (0.05) the mean obtained for the variable of attitudinal factors in the Iranian National Tax Administration which is higher than the base mean of 3.00, indicates that this variable is in a desirable condition but not high enough to claim that the attitudinal factors are being well applied in these organizations. These results are in line with the findings of Asam Kish (2019). One of the most important and constructive tasks of a manager during his or her service in the organization is to make the right, logical, and knowledge-based decisions to achieve the best possible results in the organization. Knowledge-based decision making of the managers is of great importance individually as well as organizational impact, and one of its consequences is to make others' evaluations more positive, and this right evaluation results in the satisfaction and organizational performance of managers as well as other employees. On this basis, it can be said that knowledge-based decision making is one of the most important requirements of any organization.

Investigation of the motivational factors in the Iranian National Tax Administration indicated that the significance level was less

than (0.05) which was above the base mean of 3.00 indicating that this variable is in a desirable condition but this level is not high enough to claim that the motivational factors are being well applied in these organizations. These results are in line with the findings of (Zemaitis, 2014). Decision-making is often defined as choosing an option among various solutions. Accordingly, the main task of the decision maker is to identify the possible outcomes and results, and choose the best solution among them. Obviously, decisions will be constructive and effective when these decisions are made based on the knowledge and skills of the decision maker, and the decision maker can make the choice properly and efficiently. Therefore, it can be stated that knowledge-based decision making of managers has a lot to do with the success of organizations.

Investigation of the structural factors in the Iranian National Tax Administration indicated that the level of significance was less than (0.05) which was above the base mean of 3.00 indicating that this variable is in a desirable condition but this level is not high enough to claim that structural factors are being well applied in these organizations. These results are consistent with the findings of (Sandra, 2016). Decision-making is one of the essential skills that human beings need throughout their lives. People's general knowledge, specific information, values and tastes can influence all of their decisions. One of the most important decisions in all areas, including personal and organizational life, is knowledge-based decision making. Involving knowledge in decision-making, in addition to achieving better and faster results, has both constructive and desirable consequences for the organization as well as individuals. And that includes a sense of satisfaction, increased job motivation,

increased skill and awareness, and consequently improved job and organizational performance, that is why some experts have stated that knowledge-based decisions form the basis and foundation of an organization.

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