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Studying The Effect of Strategic Thinking Training on Intuitive Decision – Making Style of Female Employees at the General Department of Tax Affairs of East Azerbaijan Province^a

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Abstract

This research is conducted to study the effect of strategic thinking training on intuitive decision making style. The statistical population consists of 87 female employees at the General Department of Tax Affairs of East Azerbaijan Province. These 87 female employees are candidates for the position of basic manager. 32 persons of these female employees are randomly selected and divided into two equal trial and control groups. This research method was applied and semi-experimental with pretest and posttest design with trial and control groups based on study method. In order to measure female employees' decision making style, Scott & Bruce Decision Making Style Questionnaire (DMSQ) was used. The trial group received the intervention based on strategic thinking training for nine sessions. The results of statistic test of covariance analysis indicate that strategic thinking training affects enhancement of intuitive decision making style

Keywords:

Strategic Thinking,
Decision Making
Style, Intuitive

JEL Classification:

A19; A20; A29

Stratejik Düşünme Eğitiminin Doğu Azerbaycan Eyaleti Vergi İşleri Genel Müdürlüğü'ndeki Kadın Çalışanların Sezgisel Karar Verme Stillerine Etkisinin İncelenmesi

Öz

Bu araştırma, stratejik düşünme eğitiminin sezgisel karar verme stili üzerindeki etkisini incelemek amacıyla yapılmıştır. İstatistiki popülasyon, Doğu Azerbaycan Eyaleti Vergi İşleri Genel Departmanında çalışan 87 kadın çalışandan oluşmaktadır. Kadın çalışanlar, temel yönetici pozisyonuna adaydır. Kadın çalışanlardan 32 kişi rastgele seçilmiş ve iki eşit deneme ve kontrol grubuna ayrılmıştır. Bu araştırma yöntemi, çalışma yöntemine dayalı olarak deneme ve kontrol gruplu ön test ve son test deseninde yarı deneysel olarak uygulanmıştır. Kadın çalışanların karar verme tarzlarını ölçmek için Scott ve Bruce Karar Verme Stili Anketi (DMSQ) kullanılmıştır. Deneme grubu, dokuz oturum için stratejik düşünme eğitimine dayalı müdahaleyi almıştır. Kovaryans analizinin istatistiksel testinin sonuçları, stratejik düşünme eğitiminin sezgisel karar verme stilini geliştirmeyi etkilediğini göstermektedir.

Anahtar Kelimeler:

Stratejik Düşünme,
Karar Verme Stili,
Sezgisel

JEL

Sınıflandırması:

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1. Introduction

In a world faced with technological, health and environmental change and uncertainty, decision-making is challenging (Walton, 2020). Decision making as one of principal processes in each organization, is the most important task of the managers in all levels (Heracleous, 1996). Decision-making takes place when there are alternative choices that could be made. One solution is selecting a decision from several potential variants. The choice of a variant should consider various factors, such as an achievement of the organization's goals, re-sources, regulations in force, planned effects, and expected benefits (Sulich et al., 2021). Koontz and Weihrich believe that organizations' plans, programs and policies depend on decision making. They also state that the managers usually consider decision making as their primary task; since they should always be concerned about what pass to choose, what action to take, how to divide organizational tasks between employees, and decide that the who, when and how should do specified tasks. Models and styles of decision making are needed to make appropriate decisions so the managers can encourage employees to find creative strategies for organization's success (1998). Due to Sternberg, methods of decision making are changeable and everyone can improve their decision by practice (Tabesh and Zareh, 2011). On the other hand, strategic thinking and learning its skills have been point of interest in management fields in the past decade; and the importance of having the skills of strategic thinking have been denoted in many researches. In Mintzberg's point of view, reinforcement of strategic thinking leads to development of better strategies. He believes that the managers with strategic thinking capabilities are able to encourage other workers to find creative solutions for the success of organization (Mintzberg, 1994).

So the organizations today need managers who have mastered the skills of strategic thinking to be able to compete with other companies and remain distinguished and growing. Turner (1998) states that we are limited in predicting the future; and the world is changing fast and unpredictably and we have no control on its vital resources, so the organizations cannot formulate and apply strategies. This very organizational need brings out the question that how we can train proper mangers with open minds and strategic thinking skills, to help the organization to take the right pass to growth and success. Such managers, with characteristics like systematic perspective, long term vision, opportunism, timely thinking, creativity and many other mental and cognitive capabilities, benefit appropriate decision making styles, make suitable decisions and lead the organization to a better future (Liedtka, 1998).

On the other hand, considering the present conditions, tax as one the most important government's financial resources, plays a crucial role in economic growth and income distribution. Tax share of total general revenues, differs in countries and depends on their development level and economic structure. Tax income is one of the most important sources in the budget of most countries specially developed ones; and is considered as an economic

indicator in country ranking. Volume and amount of tax income in budget sources represents the economic health of the government and the strength of economic system. Clarity and integrity of the economic system relies on tax income (LaridashtBayaz et al, 2014). Also an efficient tax system is crucial for the proper functioning of the economic system. The purposes of tax system in various countries include financing of public resources, providing social and economic services, redistribution of revenues and social justice; and the governments have to apply a portion of their management through tax incomes. In many developed and even developing countries, almost 90% of government's current payments are supplied by tax incomes (Kamali et al., 2014). Therefore, the role of tax in country's economy, gives the decision making of the managers of the tax system a great importance. So we can daresay that necessity of right decisions by the managers and finding appropriate strategies is an issue that requires to be scrutinized. Meanwhile, alongside with the process of comprehensive tax plan supervised by the World Bank and the French company of Bull, which is considered a great evolution in the country's tax system; there is a great need for using strategic management techniques in managers decision making. So Instructing strategic thinking and creating the skills of this type of thinking in managers as key factors in decision makings need much more attention. The present research, studies the effects of instruction of strategic thinking on intuitive decision making style of managers at State Tax Administration in East Azerbaijan province for the first time.

2. Instruction of Strategic Thinking

Strategic thinking is a fascinating mental process (Halevy, 2020). On the other hand, Strategic Thinking (ST) is defined as the way people, organizations, and societies think in order to achieve a pre-defined goal. Strategic Thinking is a part of Strategic Management (Tome and Gromova, 2021). People with natural talent in finding potential resources, business opportunities, challenging the obvious, macro perspective on the value-productive system, identifying strategic issues, etc. are very rare. But fortunately there are solutions for people lacking these capabilities. First of all, the instructions of strategic thinking must be learned and understood. The first step in learning is to realize the lack of knowledge and ignorance; which is achieved by learning strategic thinking instructions. The next step is to practice these instructions in the real environment (Lashkarbolooki, 2013). Nowadays the courses on strategic management are among the most favorite ones in scientific and academic circles. We must admit that what practically creates success is not the science, but it is the art of strategy. In classic strategy approaches managers and students are taught to recognize and develop capabilities and apply planning tools and methodologies in order to create strategies for organizations. In scientific point of view strategy, like other branches of scientific management, is a set of principles and rules; recognizing which gives the managers better ability in administration of the organization. In strategic thinking training approach, the emphasis is on developing perspectives and recreation of beliefs rather than training principles and concepts of strategy to develop the skill of strategic planning. Strategic thinking and strategic planning can be complementary. Thinking creates the

strategy and determines the way of success creation, and strategic planning, helps to implement them (Moghaddasi, 2014).

Different patterns of training strategic thinking have been proposed by researchers, most of which focus on identifying elements of strategic thinking in individual level. Casey and Goldman (2010) in a study on strategic thinking, proposed a model for training strategic thinking. This model considers strategic thinking as a learnable phenomenon and offers different ways for its realization. First, the managers can help other employees to understand their habits and desires associated with developing strategic thinking abilities. Second, the managers can adopt work experiences that develop strategic thinking. And third, the leaders can combine organization processes and strategic planning sessions with factors associated with developing strategic thinking (Golmohammadi et al., 2013). Holding classes and courses causes the managers to recognize their thinking characteristics, and helps them find out how much strategic they think. When the managers are aware of their strategic thinking and increase their knowledge about it in training courses, they automatically match their characteristics with those of a strategic thinker and improve their thinking level (Basheer Bataem, 2011).

However, it is still difficult to answer the question that "can training improve the managers' strategic thinking abilities?" because of lack of study in this field. It is obvious that such an important issue demands comprehensive study' which was emphasized in a recent gathering of experts in the United States. They announced study on strategic thinking as one of 10 important and critical future debates of management. One of the main questions to be answered in these studies is the one mentioned earlier. Of course it is not enough to select people with great strategic thinking abilities or holding courses on this field to make sure of emersion of strategic thinking in the organization; but they should create structures, processes and systems that increases continuous strategic dialogue between managers and create grounds for utilization of ingenuity and creativity of the employees (Bidaghi, 2010).

So far, no significant research has been done on the effect of strategic thinking training on decision-making styles. Only Steptoe-Warren et al. (2011) address these two issues in their article, "Strategic Thinking and Decision Making: A Literary Review". Therefore, the research question is Does the strategic thinking training affect the intuitive decision-making style of female employees at the General Department of Tax Affairs of East Azerbaijan Province?

3. Research Methodology

This research has been done on female employees in the first stage. The research method was applied and semi-experimental with pretest and posttest design with trial and control groups based on study method. Before the training of strategic thinking, both trial and control groups took the pretest and then after training the trial group, the two groups again took the posttest. Statistical population is the 87 female employees at the General Department of Tax Affairs of East Azerbaijan Province. These 87 female employees are candidates for the position of basic manager. Sampling method is random; so 32 people were randomly chosen and divided to two 16-people trial and control groups. The two

groups was homogenized in terms of the annual placement test score in national tax administration office.

The measurement tool in this research is the Scott & Bruce Decision Making Style Questionnaire (DMSQ, 1995). This questionnaire consists of 25 questions with Likert's Scale, from which 5 items are dedicated to evaluate the intuitive decision making style. The validity of general decision making styles questionnaire is calculated by Scott & Bruce who have reported a high validity and a reliability of more than 0.8. The scores of general decision making styles questionnaire are based on a 5 Likert's Scale which are:

1: never, 2: rarely, 3: sometimes, 4: often, 5: always

So the maximum score of intuitive style is 25 and the minimum is 5.

The strategic thinking training package presented in this research includes 9 training sessions which are:

1st session: introduction, course program announcement, initial assessment (pretest and presentation of first step of strategic thinking training: "gather strategic intelligence". In this session the trainees learned what has changed, what is changing and what will change.

2nd session: presentation of second step of strategic thinking training: "assess your strategic capabilities". In this session the trainees learned more about characteristics of clients, spirits and mental abilities of the staff, the organizational culture of the department, their own management capabilities and how to use office equipment.

3rd session: presentation of third step of strategic thinking training: " create strategic knowledge". In this session the trainees learned to add up strategic intelligence and strategic capabilities and combining them, create strategic knowledge.

4th session: presentation of fourth step of strategic thinking training: " make strategic predictions". In this session the trainees learned to foresee what happens in case of no change.

5th session: presentation of fifth step of strategic thinking training: "develop strategic vision". In this session the trainees learned to picture an optimistic future and specify a promising strategic orientation.

6th session: presentation of sixth step of strategic thinking training: " create strategic options". In this session the trainees learned to identify obstacles and Challenges ahead and analyze available options to resolve the obstacles, and think creatively about ideas and innovations.

7th session: presentation of seventh step of strategic thinking training: " take strategic decisions". In this session the trainees learned to make rational decisions in harsh situations. They also get to know the decision making style of strategic leaders.

8th session: presentation of eighth step of strategic thinking training: " manage the changes". In this session the trainees learned to understand resistance reason of some

people against change, and dominate the resistances by persuasion, negotiation and delegation.

9th session: Summary of Topics, holding the posttest and obtaining the viewpoints and assessment of training.

4. Research Finding

In order to analyze data and find the answer to the research question and control the effect of pretest on dependent variable, and making sure the establishment of assumptions of covariance statistic test, we have used covariance analysis (ANCOVA).

Table 1. Mean and Standard Deviation in Pretest And Posttest of Intuitive Decision Making Style in Both Groups

Group	SD	Mean	Max	Min	N
Control -Pretest	4.05740	16.9375	21	7	16
Control - Posttest	3.76829	16.7500	21	7	16
Test - Pretest	3.24551	19.0000	25	12	16
Test - Posttest	3.51188	20.2500	25	13	16

As we can see in table 1, the maximum mean is in test group in posttest with an amount of 20.25 and standard deviation of 3.51. In order to determine if the increase of mean in test group in the posttest has a significant difference with other means, we have used the covariance analysis.

First, to examine the normality of distribution of variables, the Kolmogorov-Smirnov's test, and to examine the homogeneity of variances, the Levene's test was used.

Table 2. Kolmogorov-Smirnov's Test Results for Examining The Normal Data Distribution in Intuitive Decision Making Style

Statistical Indicators	Pretest	Posttest
Kolmogorov-Smirnov Number	0.812	1.016
Significance Level	0.525	0.253

Table 2 shows that the distribution of pretest-posttest of intuitive decision making style does not have a significant difference with normal distribution; and we have normal data distribution in intuitive decision making style variables in pretest and posttest and in control and test groups.

Table 3. Levene's Test Results for the Homogeneity of Pretest and Posttest

Variable	Levene Statistic	Df1	Df2
Intuitive Posttest	0.031	1	30
Intuitive Pretest	0.557	1	30

The results of homogeneity of variances test show that variances homogeneity significance level is higher than 0.05; so the assumption of homogeneity of variances is verified. The next assumption of using covariance method is assuming homogeneity of regression slopes, which is checked in Table 4.

**Table 4. Results of Analyzing Homogeneity of Regression Line Slope
Intuitive Decision Making Style**

	SS	DF	MS	F	Sig
Corrected Model	a 87.133	2	43.567	3.090	0.061
Interaction	378.049	1	378.049	26.814	0.000
Group*Pretest	87.133	2	43.567	3.090	0.061
Total	11448.000	32			

According to the results inserted in the table, the significance level of interaction of group and pretest $p=0.06$ is higher than 0.05. So according to covariance analysis assumptions we can use it to analyze the research hypothesis.

Table 5. Results of Covariance Analysis of Effects of Training Strategic Thinking on Intuitive Decision Making Style

VS	SS	DF	MS	F	SL
Adjusted Model	98.235 a	2	49.117	3.581	0.041
Interaction or Interference	393.954	1	393.954	28.722	0.000
Pretest Score	0.235	1	0.235	0.017	0.897
Groups	87.855	1	87.855	6.405	0.017
Error	397.756	29	13.716		
Total	11448.000	32			
Adjusted Total	496.000	31			

a. R Squared = .198 (Adjusted R Squared = .143)

In the table above, the results of analysis of covariance show that when the pre-test effect is removed from the post-test results related to the groups, the difference between the groups is significant at the level of more than 95% confidence. In other words, the value of $F = 6.4$ is significant at the level of 0.05. Therefore, considering the significance level of 0.017, the answer to the research question that "strategic thinking training has an effect on intuitive decision-making style" is confirmed with a confidence level of 0.05.

5. Discussion and Conclusion

The research results show that strategic thinking training of the female employees at the General Department of Tax Affairs of East Azerbaijan Province affects their intuitive decision making. This result is in accordance with results of studies by Davtalab (2013) on positive effects of strategic thinking on improving managers' decision, Golmohammadi et al. (2013) on proposing a model for learning strategic thinking to improve managers' strategic

thinking skills, Tabesh and Zareh (2011) on effects of training emotional intelligence skills in decision making styles, Hadizadehmoghaddam and Tehrani (2011) on explaining relation of emotional intelligence and managers' decision making style and Zareh and Araabsheibani (2011) on effects of risk perception (being in a situation where one have to take some risks) on students' decision making style.

A great part of strategic thinking is intuition based on recognition and comprehensive consideration to all the factors important in organization's strategic planning and performances. Achieving intuition needs sufficient insight of the organization and its successes and failures, analyzing its past experiences and the future goals. Employees with strategic orientation have better creative skills. On the other hand, strategic thinking as an important personal characteristic plays an important role in decision making style. Decision making is an intrapersonal process and has a characteristic nature. The personal differences in decision making, reveals its intrapersonal nature. Studying the relation of strategic thinking and decision making styles, unfolds that strategic thinking is able to predict intuitive style. It helps the individual to understand threat or opportunity situations and based on past experiences, even in lack of complete information, react proportional to the situation using their natural intelligence. However the Employees with intuitive decision making style do not completely reject rational analysis, but believe in many situations (dynamic and complex environments) it is not possible to follow the rational pattern and one must choose the strategy proven by intuition.

It is suggested that other researchers do this research on employees of other organizations. It is also suggested that the results of this research be made available to the training units of organizations and that universities pay the necessary attention to the strategic thinking training program.

Researcher's Contribution Rate Statement

I am a single author of this paper. My contribution is 100%

Researcher's Conflict of Interest Statement

There is no potential conflicts of interest in this study.

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