STRATEGIC EFFECTS OF MANAGERS’ LEADERSHIP
CHARACTERISTICS AND CONTROL FOCUS ON DECISION
MAKING STYLES: AN APPLICATION IN ISTANBUL PROVINCE

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ABSTRACT

In the research, firstly, the learning styles of leaders and the decision-making styles of locus of control were determined, then the relationship between learning styles and locus of control and their effects on decision-making style were examined. 3 scales were used in the study. They were developed by Scott and Bruce and translated to Turkish by Taşdelen. The Locus of Control scale was developed by Dag by using Rotter’s Internal-External Locus of Control scale to determine the locus of control. It covers administrative staff working in state high schools under the Ministry of Education in Istanbul. The findings were analyzed by SPSS 21.0 and AMOS 20.0. As a result of the research; It has been concluded that leaders heavily use rational decision-making style, they are internal control-oriented, they adopt active living and abstract conceptualization learning style, learning style and locus of control are partially effective on decision-making styles, and locus of control is effective on learning style. In addition, differences in the learning styles according to learning style, locus of control and some demographic factors.

Keywords: Learning Style, Locus of Control, Decision-Making Style.

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INTRODUCTION

Leadership is stated as a natural (Ozturk, 2003), part of the manager, not the whole. The main distinction between management and leadership is that leadership is a new concept and that the leadership has a narrower meaning than management (Pmar, 1999: 26). While Luderick is directly concerned with human behavior, management is also involved in activities that do not affect human beings directly (Güney, 2007:359). It is stated that a manager with Luderick features may be a good manager.

While management and leadership were previously known as separate concepts, nowadays, they are two interdependent phenomena that cannot be separated from each other. While taking into account the skills and abilities of managers, the leadership characteristics of the manager have been pointed out and a consensus has been reached to bring together the characteristics of management and leadership. The idea that an effective manager should have leadership characteristics, regardless of the level of management, has become an idea that is widely accepted (Pmar, 1999). The speed of change has brought new tasks to managers, new tasks have created new management roles, thus leading the way in which the classical manager is dealt with the leading manager concept.

1. Features of Leading Managers

Another feature that makes the manager a leader is his ability to manage courage and risk in extraordinary situations. To come forward by seeing the risk, to make an unexpected solution at a time when everyone thinks there is nothing left to do and to make them take part in this solution is only possible thanks to their leadership knowledge, skill and ability. The executives who are able to achieve this can take a step into leadership and being a leading manager. Therefore, it is said that real leaders are good managers. Leading management is not achieving the target by oneself, but with the subordinates. This ability and skill is only present in managers who have leadership features and the most influence of the manager is in their leadership behaviors. Most people do not want to be managed, they want to be directed rather than managed. Therefore, managers of an organization or department must have both managerial and leadership skills at the highest level and leading managers should be able to use both skills in a balanced manner.

Leader Managers have the characteristics of:

- Effective language and communication
- Democracy, equality and non-discrimination
- Adherence to human values
- Devotion and desire to learn
- Durability, patience and determination
- Vision and mission creation
• Defining objectives, goals and strategies
• Emphasizing team work
• Foreseeing crises
• Thinking Long Term
• Using time correctly and effectively
• Supporting continuous development, change and innovation
• Being aware of change, analyzing the environment well

2. Decision-Making Styles of Leading Managers

The leading manager is the person who can use his/her legal powers and the natural powers arising from leadership in order to enable the organization to reach its goals. The leader manager is the person who has the characteristics of both the leader and the manager and who melts the characteristics of the good manager and the effective leader in the same pot, reflects this to his/her behavior and implements it.

3. Learning,

These are very permanent changes that occur in behavior as a result of repetitions and experiences. Briefly, changing the behavior as a result of experiences and making it permanent. Learning is the process of formation and change that takes place in the beliefs, values, attitudes and behaviors of people as a result of the knowledge and experience acquired. The style of learning is features that show the preferences and tendencies of the learner in the way he chooses to perceive and process the information, the method and the learning process. In short, it is defined as a different way of learning or approach of the individual from others.

3.1. Learning Style Dimensions

Kolb says that in order for the learners to be successful, there must be four different skills and the learning styles have four dimensions. the four learning dimensions are briefly explained in the following way:

   concrete life (cl): the individual should keep himself open to new experiences.
   abstract conceptualization (ac): the ability to combine individual observations with logical theories.
   active experience (am): the individual can combine the theories that can be used later to solve problems and to use to make decision-making.

3.2. Learning Style - Decision-Making Style Relationship

It is known that there are various ways of learning. The concept of learning is a concept that involves individual differences. Each individual learns, but not everyone can learn in the same way. In
a principal description, what happens during the process of learning is different for each individual and this is why the way in which individuals learn is different.

It is stated that the most suitable environment for people to learn is the most suitable environment for their personal characteristics. The individual is constantly affected by environmental stimuli as they interact with them constantly. These interactions help the individual to gain various experiences. These experiences gained affect the way they learn. The forms of learning of individuals is a product of the experiences that are formed as a result of their perception, choices and decisions. According to this result, individuals develop different learning styles or transform their concepts into different forms of learning.

4. **Locus of control**

People tend to evaluate the positive or negative events in two ways. the first one is that these events are caused by external factors, the second; their belief that they are determined by their own will. therefore they believe that either their own behaviors cause the situations they face or coincidence, fate, fortune, kismet, luck, relations with other people, strong influence of others cause these situations. this point where the person believes to be internal or external is called the locus of control. In general, the locus of control is an expression of the individual's perception of the events around him, the belief in his ability to control events in his life, and where he is looking for this control. in other words, it is expressed as the place where the causes of the events are sought and attempted to be explained.

The locus of control has two dimensions: internal locus of control and external locus of control. If individuals believe that negative or positive events occurring in their lives are results of their own behaviors, they have an internal locus of control, if they think factors other than themselves (other people, coincidence, luck, fate, kismet, etc) are effective in them, they have an external locus of control.

The external locus of control is when the individual attributes the responsibility of all positive or negative situations occurring around themselves to other factors and does not take responsibility for them. Individuals who have an external locus of control believe that all events occur out of their control and external factors are effective. individuals who have an external locus of control prefer to act in line with desire, need, perception and comments of others instead of their own desire, need, perception and comments. Individuals with an external locus of control believe that their gains are due to being in the right place at the right time. for this reason, they tend to choose the activities where luck can show its effect on their lives. While internal locus of control is accepted as a positive personality trait, external locus of control is accepted as a negative personality trait and shows the opposite features of the internal locus of control.

5. **Decision and Decision Making**

The decision, in the simplest sense, is the final judgment of the person in thinking about a problem and as a result of this. Decision is choosing one or more of the alternatives consciously in order
to achieve goals or desired results. Decision-making is the process of noticing a problem, making research in order to be able to solve the problem, evaluating the solutions and their possible results as a result of this research, and finally choosing the best solution. Decision-making is when managers choose and apply one of the options that they are examining in order to be able to manage or solve occurring problems. In short, decision-making is making the most appropriate and the best choice. One of the most important determinants of the decision-making process is the individual's decision-making style.

The decision-making style is the style, the approach that the individual chooses when he or she has to make a decision. Decision-making style is a result of the individual differences, lessons learned from prior experiences, a consistent, perceptual, cognitive activity and to totality of individual characteristics. In a study conducted by Scott and Bruce (1995), five different decision-making styles were introduced. These are rational, intuitive, dependent, avoidant and spontaneous decision-making styles. We can briefly explain the decision-making styles in this approach, which are used in our research: rational decision-making style: it is the decision-making style in which the access to information is at the highest level, all options are studied and evaluated, and the most rational choices are made among the options. Decision-makers using rational decision-making style follow systematic and logical strategies, are capable of solving problems and practicing self-control.

Intuitive decision-making style is the decision-making style where decision-makers' intuition and intrinsic emotions are at the forefront, in which decision-making is more reliant on insights than information. The decision maker acts quickly according to his senses, without much reflection on the decision, and everything depends on his intuition. In short, they decide on the effect of their feelings, dreams, feelings and trust in their hunches. Dependent decision-making style: in this style, the decision-maker is highly influenced by the words and directions of others in the decision-making process. They act in consideration of the advice, instructions and recommendations of others while making decisions, the guidance of others and the influence of the organization are quite large in their decisions. Those who use this decision-making style tend to reflect the responsibilities of their decisions to others. Avoidant decision-making style: there is a tendency for the decision-maker to avoid decision-making and the responsibility of the decision. They prefer postponing to decide or not decide at all if possible, wait until last minute without deciding. Spontaneous decision-making style: they decision-maker makes decisions without planning, thinking, researching or evaluating alternatives in face of sudden events. This decision-making style can also be called automatic or situation-based decision-making. In the natural process of the decision, whatever the situation requires at that moment, there is a rush to the first available option without thinking.

The starting point of this research, which is aimed at examining the effect of learning styles and locus of control on decision-making style, is the idea of what are the most important factors in the
organizations that influence the leader managers. This idea is united with the idea that today's executives cannot manage the organizations by just being an executive, and it has led us to the idea that each manager should have the characteristics of a leader at the same time. In this context, we focused on the concept of leader manager, which is a new concept. It is stated that the decision-making ability of the leading managers can be improved, and that mistakes and deficiencies can be corrected and correct and good decision-making skills can be gained.

As a result, decision-making emerges as an experience, knowledge and learning activity.

When the locus of control, learning styles and decision making researches are examined, it is clear that there is a relationship between these variables. In this context, the hypotheses that learning styles and locus of control of individuals have an impact on the decision-making styles have been developed and it was attempted to put forward the learning styles and locus of control and the decision-making styles of the leading managers in a holistic way.

6. Research

6.1. Subject of this research: The subject of this study is to determine the effects of the learning styles and the locus of control of leading managers on their decision-making styles. The research covers leading managers (principal, deputy principal, and assistant principal) in public schools in Istanbul.

6.2. The purpose of the research: The aim of this study is to determine the effects of the learning styles and the locus of control of leading managers on their decision-making styles, explain the relations between locus of control and learning style, put forward how the decision-making styles differ according to learning style, locus of control and demographic factors with the help of a model. In this context; firstly, the learning styles, locus of control, decision-making styles of the leading managers were determined, and then the relationships between the variables were examined and the effects of the learning styles and the locus of control on the learning style were investigated. In addition, if the decision-making styles differed according to learning styles, locus of control and demographic factors was tested and the effects between the variables were handled within a holistic model.

Learning style research is usually conducted on students in the field of education. There are few researches on the learning styles of managers and on the relationship between learning styles and locus of control. Therefore, this study is considered to contribute to the literature in terms of identifying the relationships between the leading managers' learning styles and locus of control. In addition, determining the learning styles, locus of control and decision-making styles of the leading managers are considered to be important in terms of determining the similarities and differences both individually and organizationally, and increasing the individual and organizational success. Determining the relationships between variables is important in terms of what should be considered in the selection and training of leading managers.
The multidisciplinary approach of the research increases its importance. It is considered that this research will contribute to the science of education in terms of learning styles, the science of psychology in terms of locus of control, the science of management in terms of management and decision-making styles. Therefore, the research is considered important in terms of bringing an integrated perspective as an interdisciplinary study.

6.3. Questions of the Research

What are the learning styles, locus of control, and decision-making styles of leading managers? Do the learning styles and locus of control of leading managers influence their decision-making styles?

Are the focus of control of leading managers influencing their learning styles?

Do the decision-making styles of the leading managers differ according to the learning style and locus of control?

Does the decision-making styles of the leading managers differ according to the demographic factors?

The following hypotheses have been developed for research questions.

H1: Learning styles of leading managers have a significant effect on their decision-making styles.

H2: Locus of control of leading managers has a significant effect on their decision-making styles.

H3: Locus of control of leading managers has a significant effect on their learning styles.

H4: Decision-making styles of leading managers differ according to their learning styles.

H5: Decision-making styles of the leading managers differ according to their locus of control.

H6: Decision-making styles of the leading managers differ according to their demographic factors.

H6a: Decision-making styles of leading managers vary by age.

H6b: Decision-making styles of leading managers differ according to gender.

H6c: Decision-making styles of the leading managers vary according to the level of education.

H6d: Decision-making styles of the leading managers differ according to their position.

H6e: Decision-making styles of the leading managers differ according to the working time at their position.

H6f: Decision-making styles of the leading managers vary according to the total working time.

The Population of the Research

Instead of reaching all of the 1143 managers working in high schools in Istanbul, stratified sampling method which is more suitable to be used in quantitative research which is thought to represent
the population was used. When calculating the sample size, the sample size calculation formula was used in the continuous variables proposed by büyüköztürk (2009) and karatay (2011). In the study, three scales, reliability and validity tests of which were conducted, were used: decision-making styles scale (dmss), locus of control scale (lcs) and kolb learning style scale-iii (klss-iii) were used. In addition, the demographic characteristics of the leading managers were gathered with the "information form," which was developed by the researcher. in this information form, the age, gender, position, education level, working time in their position, and total working time of the leading managers were asked.

Statistical Methods Used in Research

In order to determine the relationship between the learning styles and the locus of control and the decision-making styles, the correlation analysis and the structural regression and path analysis were performed to determine the effects of the variables on each other. Differential tests were performed to determine whether the independent variables and demographic factors differed according to the decision-making style examined as dependent variables. as demographic characteristics; education level, gender, age, position, working time in the position and total working time were used. Whether the decision-making styles of the leading managers differs according to gender and education level was tested by carrying out independent sample t-test. Whether the decision-making styles differed according to the age, position, working time in the position, and total working time was tested by carrying out one-way analysis of variance (anova). Levene test was performed for the equality of the variances of the groups before starting the analysis. in order to be able to carry out confirmatory factor analysis, structural equation modelling was utilized. frequency analysis of data, descriptive statistics, reliability analysis and correlation analysis were carried out in spss 21.0 program, and Amos 20.0 and lisrel program were used in confirmatory factor analysis and structural regression analysis.

Results

When the answers given to the questions in the information form are examined:

It is seen that the majority of the leading managers were male (74.0%), 35-54 years of age (80%), and has an undergraduate diploma (82.2%). It was found that the majority of leading managers worked in the assistant director position (57.8%) and worked 1-4 years at this position (57.5%), had an experience of 11-25 years (66.3%).
In order to test the hypothesis, the modified structural internal and external locus of control on the relationships between the decision-making styles in the model located in the center and the relationships established between the control-focus sub-dimensions and the relationships between the dimensions. H2: Locus of control of leading managers have a significant effect on their decision-making styles.

**Table 1:** Findings Related to Relationships of the Variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Δ$x^2$</th>
<th>Δ$x^2$/sd</th>
<th>RMSEA</th>
<th>CFI</th>
<th>GFI</th>
<th>RMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Model</td>
<td>753.649</td>
<td>3.153</td>
<td>0.077</td>
<td>0.844</td>
<td>0.848</td>
<td>0.119</td>
</tr>
<tr>
<td>Modified Structural Model</td>
<td>499.452</td>
<td>2.181</td>
<td>0.057</td>
<td>0.918</td>
<td>0.897</td>
<td>0.066</td>
</tr>
</tbody>
</table>

*p<0.05

Table 2. Locus of Control-Structural Equation Modelling Results of Decision-Making Styles

<table>
<thead>
<tr>
<th>Model</th>
<th>Δ$x^2$</th>
<th>Δ$x^2$/sd</th>
<th>RMSEA</th>
<th>CFI</th>
<th>GFI</th>
<th>RMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Model</td>
<td>1551.624</td>
<td>2.272</td>
<td>0.059</td>
<td>0.809</td>
<td>0.818</td>
<td>0.084</td>
</tr>
<tr>
<td>Modified Structural Model</td>
<td>1252.332</td>
<td>1.909</td>
<td>0.050</td>
<td>0.869</td>
<td>0.851</td>
<td>0.074</td>
</tr>
</tbody>
</table>

*p<0.05

**Table 3.** Locus of Control-Path Analysis Results of Learning Styles

<table>
<thead>
<tr>
<th>Variables</th>
<th>Regression Coefficient (β)</th>
<th>S.H.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Locus of Control</td>
<td>Learning Style</td>
<td>.392*</td>
<td>.027</td>
</tr>
<tr>
<td>External Locus of Control</td>
<td>Learning Style</td>
<td>-.543*</td>
<td>.042</td>
</tr>
</tbody>
</table>

As a result of the structural model and path analysis carried out in order to determine the effect of the locus of control of the leading managers on the learning styles, "H3: Locus of control of leading managers have a meaningful effect on the learning style" as a result of the structural model and road analysis to test the hypothesis created by the purpose (Lix2/sd=2.360; RMSEA=0.061; RMR=0.077; CFI=0.877; GFI=0.939); it has been found that internal locus of control has a positive effect on learning styles (P = .392, p <0.05), while the external locus of control has a negative (P = -.543, p0.05) effect.
Table 4. Mean and standard deviations of the decision-making styles according to the locus of control and Descriptive statistics of Decision-Taking Styles according to locus of control

<table>
<thead>
<tr>
<th>Decision-making style</th>
<th>Locus of Control</th>
<th>N.</th>
<th>mean</th>
<th>std. dev.</th>
<th>S.H Qt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDMS</td>
<td>Internal Locus of Control</td>
<td>314</td>
<td>4.1376</td>
<td>.52823</td>
<td>.02981</td>
</tr>
<tr>
<td></td>
<td>External Locus of Control</td>
<td>51</td>
<td>3.8000</td>
<td>.85229</td>
<td>.11934</td>
</tr>
<tr>
<td>IDMS</td>
<td>Internal Locus of Control</td>
<td>314</td>
<td>3.4764</td>
<td>.74423</td>
<td>.04200</td>
</tr>
<tr>
<td></td>
<td>External Locus of Control</td>
<td>51</td>
<td>3.6627</td>
<td>.84899</td>
<td>.11888</td>
</tr>
<tr>
<td>DDMS</td>
<td>Internal Locus of Control</td>
<td>314</td>
<td>3.4697</td>
<td>.74525</td>
<td>.04206</td>
</tr>
<tr>
<td></td>
<td>External Locus of Control</td>
<td>51</td>
<td>3.4020</td>
<td>.69835</td>
<td>.09779</td>
</tr>
<tr>
<td>ADMS</td>
<td>Internal Locus of Control</td>
<td>314</td>
<td>2.2217</td>
<td>.70853</td>
<td>.03998</td>
</tr>
<tr>
<td></td>
<td>External Locus of Control</td>
<td>51</td>
<td>2.6431</td>
<td>.92374</td>
<td>.12935</td>
</tr>
<tr>
<td>SDMS</td>
<td>Internal Locus of Control</td>
<td>314</td>
<td>2.3487</td>
<td>.71790</td>
<td>.04051</td>
</tr>
<tr>
<td></td>
<td>External Locus of Control</td>
<td>51</td>
<td>2.7990</td>
<td>.94342</td>
<td>.13211</td>
</tr>
</tbody>
</table>

* p<.05

According to the results of the examination carried out in order to determine whether decision-making styles vary with locus of control, it was found that leader managers with an internal locus of control has rational decision-making styles (mean=4.1376; std. dev.=0.528), external locus of control (mean=3.8000; std.dev.=0.852) has avoidant decision-making style, external locus of control
Learning Styles - Findings Related to Relationships Between Decision Making Styles

When the correlational relationships between the sub-dimensions of the learning style and the sub-dimensions of decision-making styles are examined;

While there is no significant relationship between abstract conceptualization and reflective observation and rational decision-making style (r = .052, r = -.037, p > .05), there is a positive relationship between the rational decision-making style and the active experience, and a negative relationship between the rational decision-making style and concrete experience (r = .161, r = -.182, p < .05).

There was no relationship between active experience and intuitive decision-making style (r = .013, p > .05), positive relationship between intuitive decision-making style and concrete experience (r = .225, p < .001), negative relationship between abstract conceptualization and reflective observation (r = -.124, r = -.106, p < .005).

Learning Styles - Findings Related to Relationships Between Decision Making Styles

There is a positive relationship between avoidant decision-making style and concrete living and reflective observation (r = .286, r = .113, p < .001), a negative relationship between abstract conceptualization and active living (r = -.129, p < .001, r = -.232, p < .05).

There is a positive relationship between intuitive decision-making style and concrete experience (r = .364, p < .001), negative relationship between abstract conceptualization and reflective observation (r = -.124, r = -.203, r = -.111, p < .05) there is no meaningful relationship between instant decision-making style and active life (r = -.073, p > .05).

There is no meaningful relationship between dependent decision-making style and learning styles (r = .031, r = -.080, r = -.008, r = .070, p > .05).

Locus of control - findings of relationships between decision-making styles

When the relationships between the sub-dimensions of the locus of control and the sub-dimensions of the decision-making styles were examined, it was found that there was a positive correlation between the internal locus of control and the rational decision-making style (r = .491, p < .05), a negative relationship with avoidant decision-making style (r = -.239, p < .05), a positive and meaningful relationship with intuitive and dependent decision-making styles (r = .122, r = .110, p < .001). There is no relationship between the internal locus of control and the decision-making style (r = .097, p > .05). When the relationships between the external locus of control and the sub-dimensions of the decision-making styles are examined; There is no relationship between the locus of control and the rational, dependent and spontaneous decision-making styles (r = -.084, r = .061, r = .250, p > .05), there is a positive and significant relationship with intuitive and avoidant decision-making styles (r = .329, r = .231, p < .05).

Locus of control - findings about relationships between learning styles

When the relationships between the internal locus of control and the learning styles sub-dimensions are examined; there is a negative correlation between internal locus of control and concrete experience (r = -.140, p < .05), a positive relationship with active living (r = .210, p < .05) there is no
relationship between internal locus of control and reflective observation and abstract conceptualization
\( (r = -.081, r = -.010, p > .05) \).

When the relationships between the external locus of control and the learning styles sub-dimensions are examined; there is a positive relationship between external locus of control and abstract living \( (r = .269, p < .001) \), a negative relationship between abstract conceptualization and active living \( (r = -.113, r = -.148, p < .05) \) there is no significant relationship between external locus of control and reflective observation \( (r = -.016, p > .05) \).

**Findings about hypotheses**

As a result of the structural equation modelling, regression and path analysis carried out in order to test the hypothesis h1: learning styles of leading managers have a significant effect on their decision-making styles \( (\Delta \chi^2/sd = 2.181; \text{rmsea} = 0.057; \text{rmr} = 0.066; \text{cfi} = 0.918; \text{gfi} = 0.897) \), it was found that the learning style has a meaningful and negative effect on intuitive, avoidant, and spontaneous decision-making styles \( (\beta = -.117, \beta = -.094, \beta = -.178, p < .05) \), and they have no meaningful effect on rational and dependent decision-making styles \( (\beta = .033, \beta = -.007, p > .05) \). According to the findings, learning styles partially affect decision-making styles. This effect is seen to be reducing intuitive, avoidant and spontaneous decision-making behavior.

In addition, when it is considered that the leading managers mostly use rational and dependent decision-making styles, it can be said that even though their experience and knowledge lead them to a certain decision at the moment, genius leading managers use all decision-making processes without taking initiative.

As a result of the structural equation modelling and the path analysis carried out to test the hypothesis h2: locus of control of leading managers has a significant effect on their decision-making styles \( (\Delta \chi^2/sd = 1.909; \text{rmsea} = 0.050; \text{rmr} = 0.074; \text{cfi} = 0.869; \text{gfi} = 0.851) \), it was found that internal locus of control has a positive effect on the rational and intuitive decision-making styles \( (\beta = 2.274, \beta = 1.193, p < .05) \), a negative effect on avoidant decision-making style \( (\beta = -.837, p < .05) \), and has no effect on the dependent and spontaneous decision-making styles \( (\beta = .456, \beta = -.751, p > .05) \).

The external locus of control has a meaningful positive effect on intuitive, spontaneous and avoidant decision-making style \( (\beta = .563, \beta = .454, \beta = .190, p < .05) \), and has no effect on rational and dependent decision-making styles \( (\beta = -.083, \beta = .009, p > .05) \).

It is seen that internal locus of control leads the leaders to adopt more rational and intuitive decision-making styles and to avoid avoidant decision-making style. In line with these findings, it can be stated that the leading managers with internal locus of control use rational and intuitive decision-making styles, it is important for leading managers to have an internal locus of control in order to make decisions that are rational and based on experience, the leading managers make decisions by taking theoretical approaches into consideration and evaluating the existing information, they are willing to
solve problems, they prefer to face problems, they make detailed examinations to solve the problem, but they also make room for their intuitions in their decisions.

It can be stated that the leading managers who have an external locus of control prefer to avoid problems rather than facing them, when they have to make a decision, they depend on their intuitions and focus on solving the problem at that moment.

As a result of the structural equation modelling and path analysis carried out to test the hypothesis h3: the locus of control of leading managers has a significant effect on their learning styles, as a result of the structural model and the path analysis ($\Delta \chi^2/{sd}=2.360; \text{rmsea}=.061; \text{rmr}=.077; \text{cfi}=.877; \text{gfi}=.939$), it was found that internal locus of control has a positive effect on the learning style ($\beta =.392, p<.05$), whereas external locus of control has a negative effect ($\beta=-.543, p <.05$).

It can be said that the characteristics of individuals with an internal locus of control such as being highly motivated, self-motivating, taking the responsibility in their learning activities affect their behavior during the process of learning, because it is seen that individuals with an internal locus of control gravitate towards learning by doing because they tend to show their abilities, and create appropriate activities where they can show these. In addition, individuals with an internal locus of control are people who constantly control their environment, change the negative circumstances in which they are, trying to turn them in their favor. because of these characteristics, they think during the process of learning and apply what they are thinking, due to being creative, they can combine thoughts with applications. it is thought that leading managers prefer to be active in the process of learning due to being research-oriented, eager to collect information, intellectual and academically-oriented. According to the findings of the hypothesis H4: decision-making styles of leading managers vary according to their learning styles, it is seen that decision-making styles, except dependent decision-making style, vary according to the learning styles ($r_{dms};f=1.009,$ $idms;f=3.204,$ $adms;f=7.384,$ $sdms;f=6.004, p<.05$).

**According to the examination of the origin of differentiation:**

more rational, concrete experience (ce) and active experience of the leading managers with abstract conceptualization (ac) and active experience (ae) (decomposing) learning style than those with concrete experience (reflection) and reflective observation (ro) more intuitive and instantaneous, abstract conceptualization (ac) and active experience (separating) learning than those who have (learning) the form of learning (ae) (abstract) and abstract reflection (ar) It has been determined that the decision is more intuitive, evasive and instantaneous than the ones with the form. Abstract conceptualization (ac) and active experience (separating) and abstract conceptualization (ac) and reflective observation (ro) (digesting) learning style than those who have been determined to be more ambiguous and instant decision. h5: the decision-making styles of the leading managers differ according
to the locus of control, according to the findings of the hypothesis; rational, avoidant and spontaneous decision-making styles differ according to the locus of control (t=3.831, t=-1.478, t=.637, t=-3.763, t=-3.961, p<.05), intuitive and dependent decision-making styles were not found to be different. in favor of internal locus of control in terms of rational decision-making style (mean = 4.1376; ss = 0.528), in favor of external locus of control in terms of avoidant and spontaneous decision-making style (mean = 2.6431; ss = 0.923; mean = 2.7990; ss = 0.943) it is seen that there is a difference. Based on these findings, the decision-making styles of the leading managers are influenced by the locus of control, and it can be stated that individuals who have different the locus of control also have different decision-making styles. In conclusion, it can be stated that internal locus of control leads leading managers to rational decision-making style, and these leaders do not avoid making decisions and they need time to make decisions.

\textbf{h6a: decision-making styles of leading managers vary by age.}

As a result of the evaluations made that the decision-making styles differ according to age, only intuitive decision-making style differs significantly according to age, and it has been found that other decision-making styles do not differ according to age.

According to the evaluations made in order to determine among which groups are the differences, only the age group of 45-54 years leading managers have more intuitive decision-making style compared to the leading managers of age group 35-44, in other words it was found that they were more intuitive than those in the 35-44 age group.

\textbf{h6b: the decision-making styles of leading managers differ according to gender.}

It was found that decision-making styles differed only by gender, in the style of dependent decision-making, and that men acted more dependent in decision-making than women. it can be stated that male leading managers have a more dependent decision-making style than female leaders and female leadership has a more flexible decision making structure. The reason why men use the dependent decision-making style is that they have higher managerial expectations and that they are more connected to their environment and to the senior management in the process of taking responsibility.

\textbf{h6c: The decision-making styles of the leading managers differ according to the level of education.}

It was found that the decision-making styles of the leading managers did not differ according to the education level. In other words, it can be said that the decision-making styles of the leading managers are not affected by the educational level, and the decision-making styles of the leading managers with different levels of education are not different. The fact that not all teachers can be assigned to the management level one day, the lack of situations in all education levels to include conscious decision-making, the lack of application of theoretical information gained from courses are among the reasons of the lack of difference.
h6d: the decision-making styles of the leading managers differ according to their position.

It was found that the decision making styles of the leading managers did not differ according to their position. Based on this finding, it can be stated that the decision-making styles of the leading managers do not change according to their positions and the position does not affect the decision-making style.

The reasons such as the fact that the leading managers in the management process consistently represent each other, stand side by side during the day, and have to produce similar solutions to similar situations can be considered among the reasons of this lack of differentiation.

h6e: the decision-making styles of the leading managers differ according to the working time in the current position.

There is a difference between the leaders who work between 1-2 years and those who work between 3-4 years in terms of instant decision-making style according to the working period in their position, and the leaders who work between 3-4 years prefer a more spontaneous decision-making style compared to the leaders who work between 1-2 years. It is seen that leading managers tend to have a spontaneous decision-making style on their 3rd-4th years in the light of their knowledge and experience gained in their first years. As a result of the similarity of the decision situation with the experience of managers in the past, less options for the solution are derived and it is decided that the information available is decided quickly.

h6f: Decision-making styles of the leading managers vary according to the total working time.

It was found that leader managers with a work experience of 21-25 years have a intuitive decision-making style, whereas those with more than 40 years and with 6-10 years and 16-20 years have an avoidant decision-making style. Based on this finding, it is considered that leading managers at the beginning of the profession have increased intuitive decision making tendencies due to their lack of knowledge and experience.

Conclusion and Recommendations

Considering that the leadership managers have a high value (86%) internal control focus also has a significant effect on decision-making styles and learning styles, all leading managers should acquire an internal locus of control, make rational and experience-based correct decisions, both within the organization and within the organization. It is proposed that the organization of seminars and in-service training programs, which enhance the decision-making ability, centering the decision-making processes and planning processes that are designed with the focus of internal control, and the creation of appropriate organizational environments, are thus considered to contribute to the success of the organization in the short term.(Gürül, 2019).
Due to the finding that the learning styles of the leaders make some difference in their decision-making styles, it is thought that the abstract conceptual and active experience learning style-based training programs where synthesis and assimilation-based approaches are synthesized and group-oriented training programs are designed and designed for the decision-making exercises will be beneficial for managers, where they can gain these syntheses. In addition, it is foreseen that by using learning styles, leading managers can avoid intuitive, spontaneous and avoidant decision-making and develop appropriate and correct decision making skills.

Because decision-making styles are sensitive to situational influences, it is considered that it is appropriate to choose one of these different approaches to decision-making styles of leader managers. Organizational environments can be organized according to specific decision-making styles. Organizational environments can be organized according to decision-making styles of leading managers. Leading managers can overcome stress in the decision-making process more easily, both through their decision-making styles and through creative discrepancies and through different processes (Akyürek, 2017). In terms of decision-making styles, it is found that leading managers mainly use rational decision-making style, have an internal locus of control, more active experience and abstract conceptualization learning style. In terms of the effects of learning styles of leading managers on decision-making styles, it has been found that learning styles have some effect on decision-making styles and this effect occurs in order to decrease intuitive, avoidant and spontaneous decision-making behaviors. In addition, it was found that decision making styles differ according to learning style, and this difference is concentrated in those who have differentiating, placing and changing learning styles.

Regarding the effect of locus of control on decision-making styles, the locus of control is partly effective on decision-making styles; It is seen that internal locus of control increases the tendency for a rational decision-making style and decreases the tendency for avoidant and spontaneous decision-making style, whereas external locus of control is effective on avoidant and spontaneous decision-making style and people with an external locus of control use these styles often. In addition, it was found that rational, avoidant and spontaneous decision-making styles vary according to locus of control, whereas intuitive and dependent decision-making styles do not. In terms of locus of control and learning styles, it was found that locus of control of leading managers is effective on their learning process, their learning style varies according to their locus of control, leading managers with an internal locus of control adopt a hands-on learning style and do not prefer intuitive learning styles, whereas the ones with an external locus of control use their intuition while learning and they cannot use their past experiences in their learning process. It was found that decision-making styles slightly vary according to age, gender, working time in the current position, and total work experience, and do not vary according to education level and the position. As a result of the research, the effect of the learning styles and of locus of control
on the decision-making styles, and the effect of locus of control on learning styles have been confirmed and it has been shown that the decision style is not a talent but a learnable feature.

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