

# Investigating on the Relationship between General Styles of Decision Making for Managers in Government Organizations

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**Abstract**— Decision making, as the essence of managers activities, is of great importance for all their responsibilities. Managers select their decision making style regarding various individual, organizational and environmental factors. The main goal of the current study is investigation on the relationships between general decision making styles of managers of National Iranian Oil Products Distribution Company based on the structural reliability of questionnaire for general decision making styles. In this regard, 55 managers of the company were selected as statistical population and 5 decision making styles, namely Rational, Intuitive, Dependent, Spontaneous and Avoidant, are investigated among them. Data related to decision making style were collected by decision making style questionnaire. Regarding the fact that the results of Kolmogorov-Smirnov test confirm normal distribution of data related to each style of decision making, Pearson correlation test was used to investigate the correlation between each style of decision making. The results were showed that there is a negative meaningful relationship between rational and intuitive decision making style while there are positive meaningful relationships between rational and avoidant decision making styles as well as intuitive and spontaneous decision making styles. Further, there are negative meaningful relationships between avoidant decision making style and dependent and spontaneous decision making styles. In the current research, there are not meaningful relationships between each style of decision making and two demographic characteristics, namely work experience and education of managers.

**Index Terms**— General Styles, Decision Making, Managers, Government Organizations, Human Resource Management

## 1 INTRODUCTION

Decision making is one of the most important processes in organizations and is a primary duty for managers in all levels [6], so that some experts are believed that "management is decision making at all" [8]. Koontz believed that the presence of plan, policy and strategy are dependent on decision making, he also believed that manager usually takes decision making as his/her primary duty since he/she must always think about what way should be selected, what should be done, how divide duties between people and what work should be done by who, when, where and how? [5]

Studying the process of decision making is not a new issue. During recent years, numerous researches have been performed in various fields and contexts about decision making resulting various classifications regarding the styles and models of decision making [7]. Those classifications are different based on their attitude about the individual, organizational and environmental factors that affect the reactions and behaviors of people when encountering with decision making [13]. Scott and Bruce investigated on the decision making styles and effective factors on those and emphasized on internal characteristics and individual differences of people to suggest five decision making styles entitled as general decision making styles. These five styles are Rational, Intuitive, Dependent,

Spontaneous and Avoidant decision making [9].

Regarding the fact that there have not been any investigation on the decision making styles of managers based on general decision making styles, the main goal of the current research is investigating on general decision making styles among managers of National Iranian Oil Products Distribution Company. General decision making style model of Scott and Bruce and its questionnaire can be used in researches about the personal components and individual characteristics of managers and organizational decision makers. In the current research, the original questionnaire of general decision making style is translated and hence, the validity and reliability of translated form is evaluated in order to use in related researches (with focus on individual differences). In order to evaluate the validity of questionnaire, content validity and construct validity are used [1-23]. Content validity is studied by experts and for construct validity, the correlation between each general decision making styles are calculated. According to the literature review in the field of decision making and above mentioned styles, it is estimated that there would be positive and negative meaningful correlations between some general decision making styles [24-49]. Hence, measuring the correlation between these styles is performed for evaluating construct validity of translated questionnaire and its applicability in management researches. In the current investigation, the correlations between each style and the questions of questionnaire also calculated [50-67]. In order to measure the reliability of questionnaire, the internal consistency of questions is calculated using Cronbach's alpha. Regarding the fact that education and work experience are two major demographic characteristics, especially in management levels, the relation-

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ship between work experience and education of managers and their general decision making styles are investigated to answer the question that if these demographic variables are effective on the attitude of managers towards general decision making styles or not [68-90].

## 2 LITERATURE REVIEW

### 2.1 Decision Making

In the middle of past century, Chester Barnard, one of the chief administrators of telephone industry, brought the term "decision making" from the literature of government sector to business world. This term gradually became the alternative for weaker terms such as "resource assignment" and "policy making" [2]. Decision making is selecting a solution among two or more options in a precautionary behavior in order to achieve a goal or specified objective with least possible risk [3]. Therefore, decision making is the core of planning. A plan cannot be existed unless decision was made [15]. Managers always encountered with situations which must make decisions. It shows the importance of decision making for all duties of managers and organizational processes.

Decisions are our responses to the environmental phenomena and occurrences which consist of three aspects [7]:

- (1) There should be more than one solution for a considered phenomenon. In other words, if there is one solution for a problem or one usage from an opportunity, decision making does not make sense.
- (2) Decision makers predict future occurrences based on a set of possibilities and with a specified reliability.
- (3) The consequences induced by each solution should be evaluated in the form of achieving personal values and goals.

### 2.2 Decision Making Style

Decision making style of people explains their behavior in the time of decision making. In other words, the decision making style of each individual is its personality attitude towards the understanding and reaction to decision making [14]. As a result, in addition to organizational and environmental factors affecting the decision making style of managers, the difference in personalities of managers lead to different decision making styles.

Five decision making styles are introduced by Scott and Bruce as general decision making styles:

- **Rational Decision Making Style:** The style explains the tendency of decision maker to identify all possible solutions, to evaluate the consequences and results of each solution from various points of view and finally to select optimum and favorite solution in the time of decision making [7]. In other words, in this decision making style, the problem can be defined accurately and decision maker follows a constant and completely identified process for selecting and implementing the best solution and for achieving to goals [4]. People who have rational decision making style make their decisions based on complete and comprehensive search and analysis of all available data originating from both internal and external resources [11].

- **Intuitive Decision Making Style:** Intuitive decision making is an unconscious process that achieved through inferred experiences [1]. In this style, decision maker has not a clear reason about the accuracy of decision but implements what that seems right based on his/her internal thoughts and attitudes [10]. People who have intuitive style does not completely reject wisely analysis but they are believed that internal intuition can help people for making appropriate decision when encountering with a crisis, with no confidence, when encountered with a huge volume of unprocessed data and when the complexity of problem and critical environment does not allow to collect all possible data about the considered problem and there is not possible to systematically evaluate these data.

Three most important resources of internal intuition in this style are [12]:

- (1) **Inherent / Inborn Responses:** Inherent responses are originated from unconscious of human; it is not educable and is inherently along with human.
- (2) **General Experiences:** This resource of intuition consists of learnings and experiences of human during past events and situations.
- (3) **Focused Learnings:** These learnings are toward reducing the dependency of individual to wisely analyses in ambiguous and unclear conditions and improving intuitive abilities.

In this regard, it can be said that intuitive decision making is more comprehensive and flexible in unclear and turbulent environments.

- **Dependent Decision Making Style:** The style explains rational and practical dependency of decision maker to supports and helps of others in the time of decision making [9]. Managers who have this style are need to have and follow someone orders when encountering with a problem. Such people are completely relied upon the attitudes of others instead of advising with others to finally make their own decision.

- **Spontaneous Decision Making Style:** The style explains the urgent feeling of decision maker and his/her tendency to make the final decision in shortest and fastest possible way [14]. In other words, managers who have this style immediately make their final decision when encountering with a problem.

- **Avoidant Decision Making Style:** People who have this style postpone decision making as long as possible and prevaricate any response when encountering with a problem [9]. Therefore, this style can be defined as tendency of decision maker to avoid making any decision and to elude from any possible situation of decision making [14]:

Spicer and Smith studied these five general decision making styles among two groups of 200 students of business in one of England universities and found negative meaningful relationships between rational style and intuitive, spontaneous and avoidant styles in group (1) while they found positive meaningful relationships between intuitive and spontaneous styles as well as dependent and avoidant styles in group (1). In group (2), the results were similar with group (1) and there was a positive meaningful correlation between avoidant and spontaneous styles, as well [9]. Thunholm studied among 206

officer of Sweden Army about the general decision making styles and found a meaningful reverse relationship between rational styles and intuitive, avoidant and spontaneous styles while there was a positive meaningful relationship between intuitive and spontaneous styles as well as dependency and avoidant styles [14].

### 3 METHODOLOGY

Regarding the fact that the current research investigates the relationships between general decision making styles among sample managers, this is a survey research in which, the main question of research is evaluated by selecting a statistical population and through correlation method, and hence, it can be categorized into applied researches.

### 4 STATISTICAL POPULATION, MEASURING TOOLS AND STATISTICAL TECHNIQUES

The statistical population of the current research consists of 70 managers of National Iranian Oil Products Distribution Company among them, 55 people were randomly sampled as statistical sample.

General decision making styles questionnaire consists of 25 questions. In order to measure each style, 5 questions are assigned to each decision making style and for responding to each question, Likert spectrum is used. As the original general decision making styles questionnaire was translated, the content validity of translated questionnaire was firstly evaluated by experts and was confirmed. In order to evaluate construct validity, the correlations between styles as well as the correlations between scores of each question and scores of each style were calculated. In order to measure the reliability of questionnaire, its Cronbach's alpha was calculated as 0.71 which indicates its acceptable reliability.

In order to select appropriate correlation test, Kolmogorov-Smirnov test was used to indicate normal distribution of data related to each style. In order to investigate the relationship between work experience of managers and decision making styles, Pearson correlation test was used. Chi - square test was used to evaluate the relationship between education of managers and decision making styles.

### 5 RESULTS AND DISCUSSION

All decision making styles are larger than acceptable meaningful level (0.05) obtained from Kolmogorov-Smirnov test. Hence, the scores of all styles follow normal distribution and as the scale of variables is quantitative, Pearson correlation test is selected to evaluate the relationship between general decision making styles of managers and to confirm the construct validity of GDMS questionnaire.

As can be seen, the meaningful level of Pearson test is calculated between rational styles and both intuitive (0.011) and avoidant (0.045) styles which are lowering than acceptable meaningful level (0.05). In this regard, it can be said that there is a reverse meaningful relationship between rational and intuitive styles of managers while there is a direct meaningful relationship between rational and avoidant styles of managers.

In addition, the meaningful level of correlation test between intuitive and spontaneous styles (0.013) and between avoidant style and both dependent (0.002) and spontaneous (0.029) styles are lower than acceptable meaningful level. Therefore, there are direct meaningful relationships between intuitive and spontaneous styles of managers and between avoidant style and both dependent and spontaneous styles of managers. As the obtained meaningful level from Pearson test between work experience and scores related to each decision making style of considered managers are larger than acceptable meaningful level (0.005), it can be concluded that there is not a meaningful relationship between work experience (years of service) and general decision making styles.

In order to investigate the relationship between education of managers and general decision making styles, Chi-square test is used between education levels of managers (under graduated and lower - graduated and higher) and having each decision making style by managers.

Meaningful level of chi-square test between education level and general decision making styles of managers are higher than acceptable meaningful level (0.005). Therefore, there is not a meaningful relationship between education level of managers and their general decision making styles.

### 6 CONCLUSION

An experimental research about the individual differences affect decision making style is dependent on a valid measuring tool. General Decision Making Styles (GDMS) questionnaire can be considered as one of those valid tools. Regarding the fact that general decision making styles have not been evaluated in management researches in Iran, it can be considered as a valid measuring tool for decision making styles based on individual characteristics in management researches by confirming its validity and reliability.

The first finding of the current research, i.e. reverse meaningful relationship between rational and intuitive styles, are in agreement with the results reported by Spicer and Smith as well as Thunholm. In the current research, managers who have fewer tendencies to following wisely principles of rational style are more tend to their internal feelings, thoughts and experiences. In ambiguous situations that the problem is not easily identifiable, such managers make their decision based on their internal thoughts and past experiences instead of identifying all possible solutions which may be impossible to do.

In the current research, a positive meaningful relationship is found between rational and avoidant styles which is in agreement with findings of Smith and Spicer as well as Thunholm in view of presence of the relationship not in view of its direction. Based on this result, it can be concluded that managers who believed that rational style should be followed in all decision making situations are not made decision at all when encountered with real situations that are very complicated and it is not possible to wisely and rationally made decisions.

Another finding of the current research explains that there is a positive meaningful relationship between intuitive and spontaneous styles which is in agreement with findings of Smith and Spicer as well as Thunholm. Regarding the fact that intuition pro-



cess in human mind occurs very fast, managers who have strong ability and tendency for relying upon their internal feelings and cleverness are tended to make decisions immediately based on their internal intuition and feelings.

In the current research, it finds that there is a positive meaningful relationship between avoidant and dependent decision making styles which is in agreement with findings of Smith and Spicer as well as Thunholm. In this regard, managers who are completely relied upon the comments of others in the time of decision making and have not enough independency for making appropriate decision are eluded for responding and making practical decisions to solve the problem and when they are under pressure for responding to the problem, they are completely relied upon the comments of others.

The presence of a positive meaningful relationship between avoidant and spontaneous styles in the current research also is in agreement with findings of Smith and Spicer as well as Thunholm. Based on the obtained results in the current research, managers who are tended to ignore any issue (opportunity or threat) and eluded from responding to and encountering with decision making situations, when are under pressure for making a decision, make their decisions immediately.

Regarding the confirmation of content validity of GDMS questionnaire by experts, the obtained results from Pearson correlation test between general decision making styles of managers confirm the construct correlation of the questionnaire. By confirming content and construct validities of translated questionnaire as well as its reliability with Cronbach's alpha of 0.71, the translated questionnaire of general decision making styles can be used as an appropriate tool for measuring decision making style in researches focused on individual and internal characteristics of decision makers.

There is not a meaningful relationship between work experience and education, as two demographic parameters, and general decision making style of managers. This is in agreement with the findings of Smith and Spicer and is a confirmation on the approach of Smith and Spicer about the relation of internal nature of individual and characteristics of decision making styles. In other words, as work experience and education are not originally inherent, those have not effective on decision making style of people. Therefore, it is critical to find individual and internal characteristics that affect people tendency towards general decision making styles in the future studies.

- As the internal correlation of decision making styles are investigated in the current research, it is suggested that the correlation of decision making styles with other duties of managers such as leadership will investigate in future studies.

- Effective strategies and solutions for overcoming the problems and limitations of decision making styles would be investigated in future.

- Other researches in this field can be performed such as investigating on the interaction of general decision making styles with demands and duties of various managers and other people in organizations and on the relationship between general decision making styles and personality and cognitive styles of individuals.

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