Study of the Relationship Between Emotional Intelligence (EI) and Management Decision Making Styles

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Abstract: This study deals with clarifying the relationship between Emotional Intelligence (EI) and decision making styles (rational, intuitive, dependant, spontaneous and avoidant) of managers in Iranian oil industry. A collection of 55 managers were tested. Emotional intelligence was measured by an EI questionnaire and Scott and Bruce’s decision making style questionnaire was used for measuring decision making styles of managers. A number of managerial professionals considered and accepted content validity of emotional intelligence and decision making style questionnaires. Test of Alpha-Cronbach ($\alpha = 0.71$ for decision making style questionnaire) and ($\alpha = 0.82$ for emotional intelligence questionnaire) indicated that reliability of these questionnaires are accepted too. Because all the variables are in normal form, Pearson correlation was taken to test the relationship between emotional intelligence and each of the decision making styles. Analyzing data results revealed that there are negative meaningful relationship between emotional intelligence and each of rational and avoidant decision making styles and there is a positive meaningful relationship between emotional intelligence and intuitive decision making style of managers. This study didn’t find any meaningful relationship between emotional intelligence and each of dependant and spontaneous decision making styles of managers. By using Logistic Regression, predictor models of accepted hypothesis are also presented.

Key words: Emotional intelligence · Rational style · Intuitive style · Dependant style · Spontaneous style · Avoidant style

INTRODUCTION

Turbulent environments make organizations look for employees who have various skills to cope with changes in appropriate ways. One of the most important personal factors affecting employees' responses in such situations is their emotional capability which management scholars, educators and development practitioners have evidenced their interest in understanding it in the work place for more than a decade. Emotional intelligence (EI) is an important factor in work place performance both on individual level and group level [1]. Despite the undeniable effect of EI on employees performance in different organizational levels and confirmation of its positive effects on employees growth [2], their general health improvement [3] and workplace development [4], one may assumes that people in higher levels of organizations need to be in higher level of EI to do their work more effectively. The reason for this assumption is that managers are more involved in situations demanding more capabilities than IQ; also, different dimensions of EI seem to be more related to their job contingencies. In other words, as an individual goes higher in organizational hierarchy, the positive effect of emotional intelligence on coping with situations and doing tasks in effective ways increases.

For several years, what makes a manager successful has been a principle research question for organizational scholars. Since Goleman popularized the concept of EI in 1995, different researches have tented to measure how EI helps managers' success in changing environments. In this way, empirical studies on emotional intelligence in managerial levels have expanded. Each of these studies investigates managers' emotional intelligence regarding to one of the managerial aspects or responsibilities; such as, studying relation between managers' EI score and their performance [5], EI and management leadership style [6], EI and managers' work attitudes, behaviors and outcomes...
[7] and studying the impact of managers' emotional intelligence on employees' satisfaction [8]. Results of these researches revealed that EI predicts positive outcomes for managers and at the higher level for their organizations. Based on this finding, some researchers recently have sought to answer the question that whether EI can be developed through training programs or not [9, 10].

The present study aims to explore the differences among managers' EI of National Iranian Oil Company (a public sector organization) and how this affects their decision making styles. Beside various organizational and environmental factors, managers' responses to decision making situations seem to be different because of their personal characteristics and orientations. Therefore, it has recently mentioned that to consider special factors that influence decision making, managers in public organizations should look for effective personal characteristics that affect their responses to decision making situations positively, instead of just relying on traditional and bureaucratic approaches. In this case it is predicted that EI as an important personal factor can play an important role in public managers' orientation or disorientation to a special decision making style. We are going to show this effect by investigating the relationship between EI and five general decision making styles; that is, rational, intuitive, dependent, spontaneous and avoidance styles [11].

The rest of this paper is organized into 5 sections. In the next section, literature review will be done that includes the history of EI, different definitions of the concept and five dimensions of EI by Goleman in 1995, the concept of decision making style and the role of EI in managers' decision making style. Then the research methodology will be discussed. After that the results of the research hypothesis and predictor models of decision making styles will be represented. In the discussion section the results of the study will be discussed and finally conclusion and some recommendations for future studies will be represented.

**Literature Review**

**Emotional Intelligence (EI):** Over the past several years, studies on intelligence have mainly focused on the adaptive use of cognition [12]. With the dawn of 21st century, human mind added a new dimension which is now considered as a more important factor for success than intelligence. This is termed as Emotional Intelligence (EI) and measured as Emotional Quotation (EQ)[13]. According to Van Maanen and Kunda in 1989, emotions are "ineffable feeling of the self-referential sort" and comprehensively defined as "self-referential feeling an actor (employee) experiences or at least claims to experience in regard to the performance she or he bring off in the social world" [7].

As longer ago as 1920s, Thorndike reviewed the predictor intelligence to explain the aspects of success which could not be allocated for by IQ [10]. He defined social intelligence as the ability to understand and manage men and women, boys and girls and to act wisely in human relations [14]. Therefore, it is true to say that EI has its roots in studies of "social intelligence" and perhaps earlier [15]. However, it was not until the early 1980s that Gardner resurrected interest in factors other than IQ which may influence individual success. In an educational context, he developed the concept of multiple intelligence subjects. In particular, his "Personal Intelligence" included inter-personal, self-awareness and emotional traits [10]. In addition to being born with various multiple intelligence subjects, Gardner suggested that some of intelligences are potentially determined by the cultural environment in which individuals are socialized, including their work environment [16]. In 1990, Mayer and Salovey first termed it as "Emotional Intelligence" [7] and Goleman popularized the concept of EI in his 1995 book. Also, he mentioned that EI might matter more than IQ [15]; in other words, he believes that EI gives you a competitive edge [17]. Harris states that emotional intelligence is a rare concept; it is both an academic and a popular phenomenon that has generated a vast literature [18].

Although, today, there is general agreement that EI encapsulates personal qualities commonly held as positive tools toward effective interactions and conducing daily life events, discussion continues around its actual definition and measurement [19]. There have been numerous definitions of what constitutes EI and different models describing EI dimensions. All of these definitions and models reference EI as thoughts and feelings behind people actions which guide their response patterns in different situations [20]. In other words, EI can be regarded as an attempt to comprehend the relationship between thinking and emotion [21]. Mayer and Salovey defined EI as the subset of social intelligence that involves the ability to monitor one's own and others feelings and emotion to guide one's thinking and actions [22,23] view EI as a non cognitive intelligence which is defined as an array of emotional, personal and social abilities and skills that influence an individual's ability to cope effectively with environmental demands and pressures.
Goleman in the 1995 and also 1998 has argued about the importance of emotional intelligence in everyday life of organizations work. He acknowledges that EI has its roots in classic management theory [24] and provides a useful definition of EI construction which is about [25].

- Knowing what you are feeling and being able to handle those feelings without having them swamp you,
- Being able to motivate yourself to get jobs done, being creative and perform at your peak and
- Sensing what others are feeling and handling relationships effectively.

Based on the above construction, two models of EI have emerged. First, the ability model that describes EI as "abilities that involve perceiving and reasoning abstractly with information that emerges from feeling". Second, the mixed model that defines emotional intelligence as "ability with social behaviors, traits and competencies" [26]. The ability model of EI is largely upheld by Mayer and Salovey; while, the mixed model is espoused by Goleman in 1995 and 1998 and Bar-On in 1997, there are slight differences in these models and EI remains a fashionable current research topic and debate [19]. In our study, we measure EI with respect to Goleman model presented in 1995. In his model, five dimensions for EI are identified [25].

**Self Awareness:** Knowing own feeling and being in touch with them.

**Emotional Management:** Not reflecting on own feelings, being able to express feelings (not passive).

**Self Motivation:** Do not use impulse in pursuing goals, do not give up in face of set backs.

**Empathy:** Sense what others are feeling and feel rapport with them.

**Relationship:** Persuading others to work to common goal and helping others to learn promoting social harmony.

**Decision Making:** Study of decision making processes is not a new topic. It has been evolving with contributions from a number of disciplines for over 300 years [27]. Decisions are the core transactions of organizations [28] and may include three aspects [27].

- There may be more than one possible courses of action.
- Decision makers can form expectations concerning future events that are often described in terms of probabilities as degree of confidence.
- Consequences associated with possible outcomes can be assessed in terms of reflecting personal values and current goals.

As with leadership decision making has been studied from multiple perspectives [29], decision making by individuals within an organizational and social context has become an increasing complex part of leadership [30]. Over the years, there has been much debate on how to accurately describe decision making processes in general beyond an implicit agreement that decisions are made through some sort of chaotic processes [31].

Decision making is about deliberately choosing an option from two or more options in a proactive manner, under conditions of uncertainty, in order to reach a specific goal, objective or outcome with the least amount of risk [32]. Managers, sometimes, see decision making as their central job because they must constantly choose what to be done, who is to do it, when, where and occasionally even how it will be done [33]. We can say that managers face with situations (opportunities or threats) that have to make decisions in doing all their activities; therefore, decision making is of great importance in all managerial activities and organizational processes.

Decision theories have embodied several prevalent concepts and models which exert significant influence over almost all the biological, cognitive and social sciences [27]. There are different factors affecting the ways in which decision makers concern with decision situations. Based on Tatum et al [29] there is no universally accepted classification of decision making style. Hunt et al in 1989 considered decision making style as closely related to the term cognitive style. Cognitive style in decision making often refers to individual "thinking practices" central to the understanding of decision processes [34]. Scott and Bruce in 1995 Described decision making styles as the learned, habitual response pattern exhibited by an individual when confronted with a decision situation. With more attention to individual differences in decision making style Scott and Bruce in 1995 considered five decision making styles as the General Decision Making Style (G.D.M.S) [11] that we measured these five styles among the managers in our study:
Rational Decision Making Style: Harren in 1979 explained that individuals engaging in rational decision making anticipate the need to make a decision and prefer it by seeking relevant information about themselves and their environment. Such individual’s primary approach to information gathering and processing is systematic and oriented toward both internal and external sources [35]. In rational decision making style, decision makers analyze a number of possible alternatives from different scenarios before selecting a choice. These scenarios are weighted by probabilities and decision makers can determine the expected scenarios for each alternative. The final choice would be the one presenting the best - expected scenario and with highest probability of outcome [27].

Avoidant Decision Making Style: It means avoiding or postponing making decisions [11]. In this style, decision maker attempts to avoid or postpone making decisions [34].

Intuitive Decision Making Style: Since the 1950s it has been known that organization of maternal in the brain provides neural respecters and prefers pathways for staring new information [36]. The role of intuition in decision making can be conceptualized as a two step process in which (implicit) knowledge is first marked with a positive or negative valence depending on the outcome of previous decisions and then is used to shape further (explicit) decision making by means of the somatic maker (the emotional valence) associated with the knowledge [37]. Patton [36] identified three sources of intuition that decision makers truth them when they are trying to cope with uncertain and unpredictable decision making situations due to rapid and complex changes in environment:

- Innate response: The instinct that bring subconscious but usually still appropriate reactions to situations. It is not learned but inborn.
- General experience: The learning that occurs in the normal process of aging and of accumulating experience.
- Focused learning: The learning that stems from deliberate effects to develop habits and achieve intuitive reactions.

EI and Decision Making Style: EI as an important personal trait has an inevitable role in doing all managerial activities in appropriate ways; especially, in changing environments that relying on cognitive intelligent is not effective enough to make suitable decisions and cope with unknowns for different managers.

Whilst, decision making has been the subject of long-standing conceptual concern, despite some theoretical work, there has been little consideration of the impact of individual differences between decision making approaches to as style of decision making [11]. There are different individual characteristics that can influence decision making style of managers; such as, individual value systems [38], self regulation habits [34] and emotional intelligence (EI) as an important personal factor that its effect on decision making styles of managers is studied in this research.

Ashkanasy et al. in 2002 presented both the narrow interpretation limiting emotional intelligence to the distinct abilities of perception, identification, understanding and management of emotions, to the broader interpretation which would include empathy, time management, decision making and team working [22]. Therefore, in today's organizations that face with complex and changing internal and external environments, decision makers should have various skills and abilities to make decisions in order to deal with these extreme situations. This usually requires managers to evaluate their current skills and develop more creative approaches.

According to Diggins [20], the best managers need to possess EI to make decisions based on a combination of self management, relationship skills and awareness of their behavior's effects on others in the organization. He argued that EI plays a greater role than "traditional intelligence" in determining leaders and organizations' success and concluded that EI helps people to:

- Be more aware of their interpersonal style.
- Recognize and manage the impact of emotions on their thoughts and behavior.
- Understanding how well they manage relationships and how to improve.

EI with its unique elements is of great importance in managerial decision making activity. Self-motivation helps
managers in better understanding of their own feelings when they are confronted with a threat or opportunity that demands their decision or reaction. Self-controlling as another important factor of EI helps managers to control their internal feelings and reactions; such as, fear or negative excitement in decision making situations. Self-motivating as the third element of EI increases managers' desire to respond to the problems in an active way instead of passive ways. Empathy as another important element of EI help managers to understand others' feelings and needs and make decisions because all decision makers make decisions that is implemented by their employees. Finally, social communication or relationship makes managers able to connect with their employees. In this way, managers can make suitable decisions and also facilitate their implementations. Therefore, managers who are high in EI are expected to understand and analyze decision making situations in better ways comparing those who are in lower level of EI.

**Research Hypothesis:**

H1 : There is a meaningful relationship between EI and rational decision making of managers.

H2 : There is a meaningful relationship between EI and intuition decision making of managers.

H3 : There is a meaningful relationship between EI and dependent decision making of managers.

H4 : There is a meaningful relationship between EI and spontaneous decision making of managers.

H5 : There is a meaningful relationship between EI and avoidant decision making of managers.

**RESULTS**

Table 1 shows the result of Kolmogorov-smirnov test for each of the research variables.

Based on the table above the levels of significance for the KS test of emotional intelligence (.926), rational decision making style (.296), intuition decision making style (.492), dependent decision making style (.551), spontaneous decision making style (.343) and avoidant decision making style (.41) is more than the level of acceptable significance (.05), therefore it can be concluded that all the variables in this study follow the normalized distribution. As a result Pearson correlation test was taken to investigate the relationship between EI and each of the decision making styles.

The results of Pearson correlation for each of the research hypothesis are shown in the table 2.

**Hypothesis One: For the hypothesis one since the level of significance in Pearson test (.021) is less than the acceptable level of significance (.05) and also its coefficient is negative, therefore there is a negative meaningful relationship between EI and rational decision making style of the managers.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kolmogorov-smirnov test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>.926</td>
</tr>
<tr>
<td>Rational Decision Making Style</td>
<td>.296</td>
</tr>
<tr>
<td>Intuition Decision Making Style</td>
<td>.492</td>
</tr>
<tr>
<td>Dependent Decision Making Style</td>
<td>.551</td>
</tr>
<tr>
<td>Spontaneous Decision Making Style</td>
<td>.343</td>
</tr>
<tr>
<td>Avoidant Decision Making Style</td>
<td>.41</td>
</tr>
</tbody>
</table>

**Methodology**

**Sample:** To explore the relationship between EI and decision making styles of managers the authors conducted their research among managers of Iranian National oil industry. 55 managers who have enough knowledge and experience (22-28 years experience) and most of them work in high level departments of oil industry were selected and asked to answer the questionnaires. 18 managers selected from highest levels of the central departments in Tehran and 37 high level managers were selected from the 37 regional departments of the oil industry around the country. Among the sample of this research there was 1 female manager and other 54 managers were male. 58 % of respondents had bachelor education while 38 % had master and 3% had higher.

**Measures:** Data collection was conducted by using 2 questionnaires. In order to measure managers emotional intelligence an EI questionnaire was taken. This questionnaire consists of 33 questions and 5 main dimensions of EI [25] were measured through this questionnaire. Decision making style was measured by using Scott and Bruce questionnaire [11], consists of 25 questions. Questions in both questionnaires were answered using a five-point Likert-type scale (e.g. 1=not at all important, 2=not important, 3=not thinking about it, 4=important, 5=extremely important). The Alpha-Cronbach for EI questioner (.82) and decision making style (.71) indicates that both the instruments of this study have acceptable reliability.
Table 2: Result of Pearson correlation for each of the research hypothesis

<table>
<thead>
<tr>
<th>Research hypothesis</th>
<th>Sig.</th>
<th>r</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a meaningful relationship between EI and rational decision making style</td>
<td>.021</td>
<td>-.31</td>
<td>55</td>
</tr>
<tr>
<td>There is a meaningful relationship between EI and intuition decision making style</td>
<td>.005</td>
<td>.374</td>
<td>55</td>
</tr>
<tr>
<td>There is a meaningful relationship between EI and dependent decision making style</td>
<td>.281</td>
<td>-.148</td>
<td>55</td>
</tr>
<tr>
<td>There is a meaningful relationship between EI and spontaneous decision making style</td>
<td>.221</td>
<td>-.168</td>
<td>55</td>
</tr>
<tr>
<td>There is a meaningful relationship between EI and avoidant decision making style</td>
<td>.002</td>
<td>-.4</td>
<td>55</td>
</tr>
</tbody>
</table>

Table 3: Chi-Square and level of significance for the logistic regression equations of rational, intuition and avoidant decision making styles

<table>
<thead>
<tr>
<th>Decision style</th>
<th>Chi-Square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational style</td>
<td>Step 1</td>
<td>9.463</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td>9.463</td>
</tr>
<tr>
<td>Intuition style</td>
<td>Step 1</td>
<td>11.365</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td>11.365</td>
</tr>
<tr>
<td>Avoidant style</td>
<td>Step 1</td>
<td>5.828</td>
</tr>
<tr>
<td></td>
<td>Model</td>
<td>5.828</td>
</tr>
</tbody>
</table>

Table 4: Elements of logistic regression model of rational, intuition and avoidant decision making styles

<table>
<thead>
<tr>
<th>Decision style</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Sig.</th>
<th>Decision style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational style</td>
<td>EI Step 1</td>
<td>-.144</td>
<td>.053</td>
<td>7.303</td>
<td>.007 Rational style</td>
</tr>
<tr>
<td>Intuition style</td>
<td>Constant</td>
<td>18.454</td>
<td>6.756</td>
<td>7.461</td>
<td>.006 Intuition style</td>
</tr>
<tr>
<td></td>
<td>EI Step 1</td>
<td>.160</td>
<td>.055</td>
<td>8.385</td>
<td>.004 Intuition style</td>
</tr>
<tr>
<td>Avoidant style</td>
<td>Constant</td>
<td>-20.308</td>
<td>7.012</td>
<td>8.388</td>
<td>.004 Avoidant style</td>
</tr>
<tr>
<td></td>
<td>EI Step 1</td>
<td>-.106</td>
<td>.048</td>
<td>4.988</td>
<td>.026 Avoidant style</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>13.626</td>
<td>6.034</td>
<td>5.099</td>
<td>.024 Avoidant style</td>
</tr>
</tbody>
</table>

Hypothesis Two: Based on the table above since the level of significance (.005) in this test is less than the acceptable level of significance (.05) and also its Pearson coefficient is positive, we can conclude that there is a positive meaningful relationship between EI and intuition decision making style of the managers.

Hypothesis Three: The level of the significance of this hypothesis (.281) is more than the level of acceptable significance (.05) and based on that there is not any relationship between EI and dependent decision making style of the managers.

Hypothesis Five: The result of Pearson correlation for the hypothesis five indicates that since the level of the significance in this test is less than the acceptable significance level (.05) and the coefficient of the test is negative, it can be concluded that there is a meaningful negative relationship between EI and avoidant decision making style of the managers.

Predictor Models of Decision Making Styles: In this study by taking logistic regression we can represent predictor models for those decision making styles that their relationships with EI have been confirmed, that are rational, intuition and avoidant decision making styles. Therefore by putting EI score of each manager in rational, intuition and avoidant predictor decision making model it can be predicted which of these three styles is the dominant decision style for each manager.

The amount of predictor Chi-Square for each of the rational (9.463), intuition (11.365) and avoidant (5.828) decision making styles are shown in the table above. Also the level of significance for rational style (.002), intuition style (.001) and avoidant style (.016) is less than the acceptable significance level (.05) and it is apparent than EI as an independent variable can affects on rational, intuition and avoidant decision styles and predictor models of these have appropriate fitting.

With regards to the result of Wald statistic and the level of significance predictor models of rational, intuition and avoidant decision making styles are as following:

Predictor Model of Rational Decision Making Model:

The output of the predictor model for rational decision making style of the managers is:
If we accept that possessing high level of self confidence and maintaining internal calmness are of critical characteristics for decision makers, high level of EI also can help decision makers to react appropriately when they face with opportunities or threats of their environment.

Finally because of the criticality of decision making among different management tasks, it is important to consider emotional intelligence (EI) as necessary competency for those who are going to be assigned at management levels of organizations.

**Conclusion and Recommendations:** This research provides a number of contributions to the theoretical debate about emotional intelligence and decision making style, that is, "Study of the Relationship between Emotional Intelligence (EI) and Management Decision Making Styles". The first contribution is that this study explored the relationship between manager emotional intelligence and their tendencies to different decision making styles for the first time. Moreover, we constructed our research work on the valid models of EI and decision making style. The second contribution establishes that emotional intelligence does lead to wide variety styles of managerial decision making and finally the result of the current study tried to make managers pay much more attentions to emotional intelligence in their training programs and managerial assignments.

**Further Research:**

- Since the current study conducted at managerial level and explored the relationship between EI and decision making as one of the most important tasks of managers, it is suggested to investigate the relationship between EI’s dimensions and each of managerial tasks. Bu doing this it can be identified if some dimensions of EI have stronger impacts on manager’s performance.
- Management effectiveness is one of the factors that can be influenced by emotional intelligence. So it is also recommended to investigate the relationship between manager’s EI and their effectiveness from lower levels employees.
- Till now mot of the researches about emotional intelligence have been conducted at managerial levels, so study of the importance and also influences of EI at non-managerial can helps to transfer the concept of EI into other level of organizations.
REFERENCES