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# DESIGNING A MODEL OF MANAGERS' COMPETENCE BASED ON THE RELATIONSHIP BETWEEN COMPETENCY DOMAINS AND COMPETENCY DIMENSIONS ACCORDING TO THEIR DECISION MAKING STYLE IN SOCIAL SECURITY ORGANIZATION

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#### **Abstract**

The purpose of this study was to design a model of competency managers based on the relationship between competency domains and competency competencies based on their decision making style in the social security organization. The statistical population of the present study consists of two groups. The first group consists of experts familiar with merit theory, whose number is unspecified and dispersed throughout the country. Their selection is selectively, and in this section the compilation and The design of the model has been used for them And the second group consists of senior managers, middle managers and social security organizations (2764 people), who work in the 31 departments of social security and treatment in 31 provinces, which according to the Cochran formula, 337 of them Sample title was selected. The methodology was descriptivesurvey research and in collecting data, the questionnaires of competency domain, managerial competency dimensions and decision styles were used. The validity of the questionnaire was 0/91.5, 0/94.9, 0/93.8, with a reliability of 0/86, 0/91, 0/94.6, are used. Data were analyzed using descriptive and inferential methods such as Pearson correlation coefficient test, single-variable ttest, Kolmogorov-Smirnov test, exploratory and confirmatory factor analysis and SPSS version 21, MINITAB version 17 and LISREL 8/8 editions. Considering the average for competency domain domains, their competency dimensions and decision making style in the social security organization, these variables are more than satisfactory. The results indicate that there is a significant relationship between the competency domain with the dimensions of managers' competence in the social security organization.

#### **Keywords**

Competency of managers – Competency domains – Competency dimensions

#### Para Citar este Artículo:

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#### Introduction

In the past decade, innovation and knowledge have turned into the axis of economic development of countries that have caused an extraordinary economic growth in these countries, and the physical economy has been replaced by knowledge economy, where the main factor of production is not labor and capital but knowledge, skill and technology. As the work place becomes more diverse than ever, the organizations must nurture and empower the capabilities and competencies of employees, regardless of race, age, religion, and gender. Accordingly, management thinkers argue that employees' knowledge and skills are the most significant sources of competitive advantage for every organization 9 \* 9 \*. Here, the merits of the managers as the most important human resource are so significant. Nowadays, the significance of the duties of managers in organizations is quite clear. They are responsible for coordinating human and material resources to reach the goals of the organization. In addition to classic roles, the most significant measures of each organization are decision-making, planning, coordination and leadership. No organizations can be found to have sustained growth and success unless managed and guided by a manager or a team of competent and efficient leaders.

#### Methodology

The study was applied-developmental in terms of purpose that the data was collected through field method. The study procedure was a series of consistent, relevant. and systematic measures taken to reach the desired goals from the beginning to the end of the study. Regarding this, the study had 4 steps and 16 measures. The population was composed of two groups: the first group was the experts familiar with the field of domains and competency aspects. In this research, managers' competency model in the Social Security Organization (SSO) has been used in designing the model. The second group was senior, base, and middle managers of SSO (2.764 people), who are in charge of 31 departments of SSO and Treatment in 31 provinces, 337 of whom were selected as the sample according to the Cochran formula. In this study, a questionnaire was used to collect the required data. The questionnaire had 29 five-option questions with regard to the macro domains of competence. 24 questions in competency aspects and 26 questions in decision-making styles. After getting the opinion of the experts, the items of the questionnaire with regard to the macro domains of competence was changed to 25, in competence aspects to 21 and in decision-making style to 24. Two methods were used to determine validity. Thus, the questionnaires of the present study were first examined and approved by 15 experts in terms of face and content validity and then for content validity measurement, content validity ratio (CVR) was used. The second method is construct validity which is based on making hypotheses about the concepts under test and testing these hypotheses and determining the correlation of its results with the initial measurement. If the result of the data confirms the predictions, the construct validity will increase. Factor analysis method was used to evaluate the construct validity. Cronbach's alpha was used to examine the internal consistency of the test. Both field and library methods were used to collect data, so that library method was to compile the literature and the background of the study, and field method to collect data on the variables. Additionally, a questionnaire was designed with 5-option Likert scale and the experts' comments were gathered to design and develop the model. To collect data based on the determined sample size of 337 individuals, 350 questionnaires were distributed among senior, executive and middle managers of SSO of nine provinces. Finally, 337 questionnaires were used to collect data and collected and analyzed in accordance with the sample size.

In this study, after data editing, encoding and data entry, data were analyzed using descriptive and inferential statistics and SPSS21, MINITAB17 and LISREL8/8. A description of the status of the demographic indices and the research hypotheses was presented along with making use of frequency tables and columnar graphs. Subsequently, to examine the research hypotheses, exploratory factor analysis was used to find the components of competency macro domains and competency aspects of managers, one sample t-test to examine the status of the variables of competency macro domains, competency aspects of managers, and decision-making styles. Moreover, Pearson correlation coefficient and multiple regression were used to examine the relationship between criterion variable (competency aspects of managers) and components of competency macro domain, and the mediating role of decision-making styles. Confirmatory factor analysis was used to find the characteristics of managers' competency model, and structural equation modeling was used to examine the validity of managers' competency model.

#### Research objectives

- 1- Recognizing and describing the features of the model of competency of SSO managers given the mediating role of decision-making styles
- 2- Recognizing and describing the validity of managers' competency model of SSO given the mediating role of decision-making styles

#### Research questions

- 1. Is there a significant relationship between decision-making styles and competency aspects in SSO?
- 1.1. Is there a significant relationship between directive decision-making style and competency aspects in SSO?
- 1.2. Is there a significant relationship between analytic decision-making style and competency aspects in SSO?
- 1.3. Is there a significant relationship between conceptual decision-making style and competency aspects in SSO?
- 1.4. Is there a significant relationship between behavioral decision-making style and competency aspects in SSO?
- 2. What is the competency model of the managers based on the relationship between macro competency domains and competency aspects of the managers according to their decision-making style in SSO?
- 3. How valid is the model of managers' competency based on the relationship between competency domains and managers' competency aspects according to their decision-making style in SSO?

#### Literature review

Haj Karimi et al.<sup>1</sup> conducted a study entitled "Designing the competency model of human resources managers in the public sector in Iran." The results showed that intelligence competencies affect managerial competencies and competencies of HR managers and management competencies affect the competencies of HR managers.

<sup>&</sup>lt;sup>1</sup> A. A. Haj Karimi; A. Rezaeian; A. Hadizadeh and A. Bonyadi Naini, "Designing the Competencies Model for Human Resources Managers in the Public Sector in Iran", Public Management Outlook, num 8 (2011): 23-43.

Abedian<sup>2</sup> conducted a study entitled "Designing the competency model for managers of educational departments in Ferdowsi University of Mashhad." Finally, the hypothetical model of the required competencies of the managers of the departments of Ferdowsi University of Mashhad, including 37 competencies was presented. In order of importance, they are patience, communication and interaction, adherence to professional ethics, accountability, trust building, leadership, planning, educational planning, teamwork, accepting criticism, conflict management, scientific-academic attitude, systemic attitude, coordination, meritocracy, organizing, time management, negotiation skill, problem solving, progress and continuous improvement, logical thinking, decisiveness, scientific belief in Islam, decision-making, organizational commitment, individual skills, being a role model, performance management, creativity, empowerment, innovation, strategic management, flexibility, being intelligent, information management, and technical expertise. It is organized as six clusters of reaching organizational results, communications, personality, perceptual, and technical traits and values.

Minui<sup>3</sup> conducted a study entitled "Examining the relationship between avoidance decision-making style and the competencies of managers of branches of Melli bank in Qazvin." The results showed a significant relationship between the avoidance decision style and the competencies of managers of branches of Melli Bank in Qazvin.

Taslimi et al.<sup>4</sup> conducted a study entitled "Designing and explaining the model of competency of managers of national projects considering risk." The paper only dealt with the results of designing the converging model of the technical-executive experts regarding the eligibility criteria of national project managers, ranking the risks and proposing proposals based on the results.

Zarei Matin et al.<sup>5</sup> conducted a study entitled "Designing the competency model for managers in cultural organizations of the country." Finally, the model of competency of managers of cultural organizations had three core competencies (cultural heritage, cultural motivation and soft intelligence), eight main competencies and 23 sub-competencies that were designed and proposed.

Asadi Nejad Taher Gourbi et al.<sup>6</sup> (2015) conducted a study entitled "Models of competency of the managers of government organizations." The results showed that the managers' competency in Iran will lead to training future managers of the executive agencies approved by the Supreme Administrative Council of the country.

<sup>3</sup> R. Minui, Investigating the relationship between avoiding decision-making style and competencies of managers of branches of nation banks in Qazvin province. Master's Thesis, Islamic Azad University, Qazvin Branch. 2012.

<sup>&</sup>lt;sup>2</sup> A. Abedian, Designing a Merit Model for Managers of Educational Departments of Ferdowsi University of Mashhad. Master's thesis of Ferdowsi University of Mashhad. 2011.

<sup>&</sup>lt;sup>4</sup> M. S. Taslimi; R. Raei; A. A. Farzin; M. Barghi, "Designing and explaining the model of competency of managers of national projects with a focus on risk". Public Management Publication, Vol: 5 num 4 (2013): 57-78.

<sup>&</sup>lt;sup>5</sup> H. Zarei Matin; M. H. Rahmati; Seyyed Mohammad Mehdi Mousavi and A. Vedadi, "Designing a Model of Competency Managers in Cultural Organizations of the Country", Journal of Management of Governmental Organizations. Vol. Issue 4 (2014): 19-36.

<sup>&</sup>lt;sup>6</sup> M. Asadinejad Taher Gurbi; S. Mohammad Taghizadeh Zarandi and R. Akhtartalee, Competency models of government agencies managers. The third International Management Conference, Economics and Accounting, Tabriz, Industrial Management Organization of the Azerbaijani Representation. 2015.

Javidmehr et al. <sup>7</sup> conducted a study entitled "Managers competency models." The results showed that designing management development plans are based on the approach of determining the managers' competency model, and the managers' competency model has four technical, environmental, managerial and individual domains including serving, accountability, being responsible and Islamic. The results showed that the best competence model is the one that can improve performance, education and success, culture change, better staffing, and standardization.

Imani and Godrati<sup>8</sup> conducted a study entitled "Conceptual model of the competency of human resources managers within the framework of Islamic value system." Research results, besides confirming the concepts and aspects identified as the aspects of the model, showed that the concept of managers' skills in the field of human resource management and the concept of individual capabilities and attributes of managers has the most and the concept of managers knowledge and awareness the least importance.

Karimian<sup>9</sup> conducted a study entitled "The model of competency required by managers and human resources specialists in East Azarbaijan Gas Company using ISM technique. The results showed that among the 20 factors extracted from the literature in this study, based on the questionnaire distributed, ten factors have been identified as the competence of the managers and human resources specialists of in East Azarbaijan Gas Company.

Kay and Moncarz<sup>10</sup> found that managers' success in managerial positions depends on competencies such as financial management knowledge, personal relationships, communication, leadership, human resource management, and other aspects of the job position.

Cochran<sup>11</sup> conducted a study entitled "Ohio State University extension competency study: Developing a competency model for a 21<sup>st</sup> century extension organization." Fourteen core competencies identified were communication, continuous learning, delivering customer service, diversity, flexibility and change, interpersonal relationships, development knowledge, expertise, resource management, teamwork and leadership, application of technology and compatibility to it, thinking and problem solving, understanding others and communities, and self-management.

<sup>8</sup> A. H. Imani and S. Ghodrati, "Conceptual Model of Competency of Human Resources Managers in the framework of Islamic Value System", Publication Quarterly, Ninth Edition, num 33 (2016): 191-221.

<sup>&</sup>lt;sup>7</sup> M. Javidmehr; T. Khosrojerdi and F. Mostafavi, Models of Competency Managers. National Conference on New Approaches in Management Sciences, Economics and Accounting, Mazandaran, Komeh Scientific Research Institute. 2015.

<sup>&</sup>lt;sup>9</sup> R. Karimian, "Model of competency required by managers and human resources specialists in Gas Company of East Azarbayjan province using ISM technique", Journal of Human Resource Management in Oil Industry, Vol: 9 num 8 (2017): 17-39.

<sup>&</sup>lt;sup>10</sup> Kay, C. & Moncarz, E. "Lodging management success: Personal antecedents' achievement KSAs and situational influencers", International Journal of Hospitality Management. Vol. 26 num 3 (207): 33–48.

<sup>&</sup>lt;sup>11</sup> G. Cochran, Ohio State University extension competency study: Developing a competency model for a 21st century extension organization (Ohio: Ohio State University, 2009).

Mumford et al.<sup>12</sup> conducted a study entitled "An analysis of competencies of managers in the hospitality industry" to identify top managerial competencies using Fuzzy Hierarchical Analysis and Delphi Technique Analysis and Prioritizing Indices. The most important competencies were leadership competencies, crisis management competencies, and problem solving competencies.

Amzat and Idris<sup>13</sup> conducted a study entitled "Structural equation models of management and decision-making styles with job satisfaction of academic staff in Malaysian Research University." The results showed that the university has analytical decision-making style. In addition, the study found that health factors predict job satisfaction at this university.

Dubois et al.<sup>14</sup> conducted a study entitled "Explaining the relationship between managers' competency with the success of government agencies." The results showed a direct and significant relationship between managerial competence and its components with the organizational success of government devices, so that the principle of meritocracy was recognized as a fundamental principle in these organizations.

Sandra<sup>15</sup> conducted a study concerning the effect of the managerial competencies on decision-making styles among faculty members in British Columbia universities. The results showed that managerial competencies have a positive and significant effect on decision-making styles among faculty members of the British Columbia universities.

Bavlar & Orsova<sup>16</sup> conducted a study entitled "Investigating Decision-making Styles and Its Relationship with General Competencies of Managers of Slovak Universities." The results showed a significant relationship between the decision-making style of rational, intuitive, dependency, immediate and avoidance of managers with their general competencies in Slovakia universities.

Avolio<sup>17</sup> conducted a study entitled "How the culture affects managers' decision-making styles (a cross-cultural approach)." The results showed a significant relationship between the cultural factors of individualism and collectivism, femininity and patriarchy, religion and the style of effective and participatory decision-making as well as unplanned decisions.

<sup>13</sup> Ismail Hussein Amzat and Datuk Abdul Rahman Idris, "Structural equation models of management and decision-making styles with job satisfaction of academic staff in Malaysian research university", International Journal of Educational Management, Vol. 26 num 7 (2012): 616-645.

Origins, effects and development. San Diego: Elsevier. 2018.

<sup>&</sup>lt;sup>12</sup> M. D. Mumford; S. J. Zaccaro; J. F. Johnson; M. Diana; J. A. Gilbert & K. V. Threlfall, "Patterns of leader characteristics: implications of performance and development", Leadership Quarterly Vol: 11 num 1 (2012): 115-133.

<sup>&</sup>lt;sup>14</sup> D. D. Dubois; W. J. Rothwell; D. J. Stern & L. K. Kemp, "Explain the relationship between managers' competency to successfully governmental organizations", Engineering Management Journal, Vol. 22 num 1 (2015): 3-12.

<sup>&</sup>lt;sup>15</sup> D. Sandra, "Investigating the Impact of Managerial Competencies on Decision-Making Styles among Faculty Members of Universities of British Columbia", Consulting psychologe Journal, Vol: 60 num 4 (2016): 363-392.

<sup>&</sup>lt;sup>16</sup> W. Bavlar & Y. Orsova, Investigating Decision Making Styles and Its Relationship with General Competencies of Managers of Slovak Universities. Academy of management Executive. 2016.

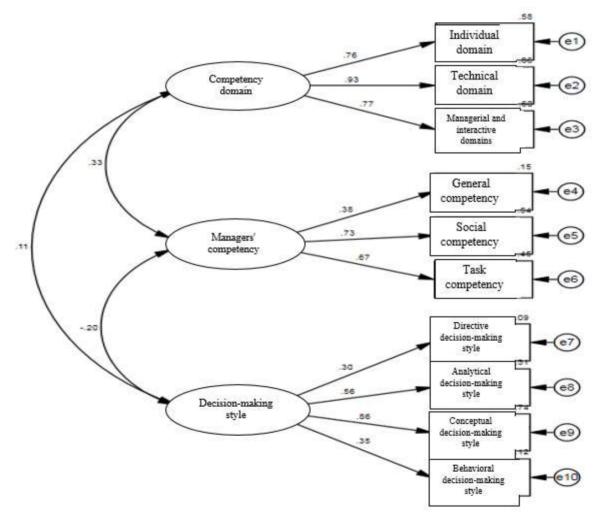
<sup>17</sup> B. Avolio, How the culture affects managers' Decision making styles (a cross-cultural approach).

Barbuto<sup>18</sup> conducted a research entitled "Designing a Model for Managerial Competency and its Impact on Decision-Making Styles in Commercial Banks of the City of Barcelona, Spain." The results showed that individual and social competencies, technical competencies, and academic and strategic competencies have a positive and significant effect on the decision-making styles in commercial banks in Barcelona, Spain.

#### Results

#### Measurement model

In the measurement model, the normality of the data (based on the Kolmogorov-Smirnov test), the validity of the model (based on factor loadings), and the fitting of the model (based on the goodness of fit indices) are examined.



CMIN =33.483  $^{\circ}$ P = 0.055  $^{\circ}$ CMIN/DF = 1.52  $^{\circ}$ RMSEA= 0.040 Figure 1

The model for measuring the research variables

<sup>18</sup> J. E. Barbuto, "Designing a Model for Managerial Competency and its Impact on Decision-Making Styles in Commercial Banks of the City of Barcelona, Spain". Journal of Leadership Quarterly, Vol. 16 num 7 (2018): 410-439.

As is seen in the Figure 1, the correlation between the variables is not more than 0.9, so there is no need to merge or delete them. Moreover, according to the Figure 1, it is seen that all factor loadings are greater than 0.5, showing that all components and items have an appropriate factor validity. Although the factor loading is less than 0.5 in some items, Abarashi and Hosseini (2012) stated that if the factor loading is between 0.3 and 0.5, it is sufficient to continue the analysis. According to the results of "Table 1, all the data has normality conditions. Therefore, data distribution is normal.

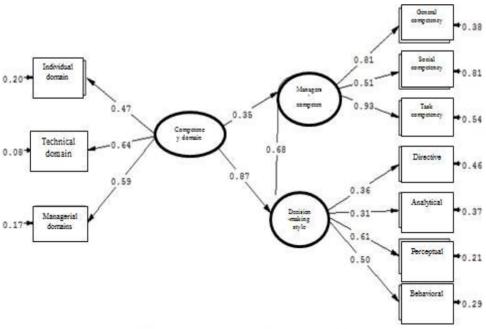
Fitness Index	RMSEA	GFI	AGFI	NFI	TLI	IFI
Acceptable values	<0.1	>0.9	>0.9	>0.9	>0.9	0-1
Calculated values	0.040	0.98	0.95	0.97	0.98	0.99

Table 1
Goodness of fit indices of the variable measurement model

As is seen, most of the indices are in acceptance domain. Thus, the measurement model has a suitable fit

## Examining the research questions: Examining the results of structural equation modeling (SEM) based on path analysis

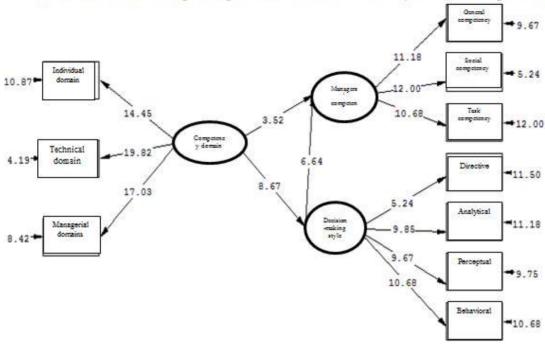
In this section, using SEM based on path analysis, the proposed model of research as well as the relationship between the variables of the domains of competence, the aspects of managers competence and decision styles are discussed, whose results are discussed below (The significance level in this section is considered as 0.05). The final SEM has been used to measure the relationship between the three main structures (competency macro domains, managerial competency aspects and decision styles). The final model is presented in Figure 2. This model is drawn based on Lisrel output.



Chi-Square=361.48, df=140, P-value=0.010501, RMSEA=0.046

Figure 2
The results of confirmation of the final model of the relationship between the main structures of the study

The results of measuring the significance of model data are presented in Figure 3.



Chi-Square=361.48, df=140, P-value=0.010501, RMSEA=0.046

Figure 3
t-value statistics of the results of the final model confirmation of the relationship between the main research structures

What is the competency model of the managers based on the relationship between the macro domains of the competency and the aspects of the competency of managers according to their decision-making style in SSO?

One must examine the direct effect of two variables with indirect effect in the case of the involvement of the mediator variable to increase the effectiveness of mediation in examining the mediating effect of decision-making in the hypothesis. In the present hypothesis, the direct effect is 0.35 in direct direction. Indirect effect if there is a mediating variable is:

$$0.87 * 0.68 = 0.591$$

Considering the higher value of the indirect effect of the direct path, the effect of the mediating variable increases, and the mediating role is confirmed in the present hypothesis and the eighth hypothesis of the research is confirmed. Thus, one can state that the competency model of SSO managers' is confirmed considering the mediating role of decision-making styles.

How much is validity of the managers' competency model based on the relationship between the macro domains of competence and the competency aspects of managers according to their decision-making style in SSO?

Structural equations have been reviewed and approved first to examine the questions and hypothesis.

The output of Lisrel software showed the appropriateness of the proposed model of research, so that the root mean square error of approximation (RMSEA) is 0.046, the normalized chi square (CMIN / DF) is 2.582 and goodness of fit index (GFI) is 0.95. Other indices for fitness of the proposed model are presented in Table 2.

Index	The reported value	The acceptable value
Root mean square error of approximation (RMSEA)	0.046	Equal to or smaller than 1
Standardized Chi-Square (CMIN / DF)	2.582	Equal to or smaller than 3
Goodness of Fit Index (GFI)	0.95	Equal to or greater than 0.9
Adjusted Goodness of Fit Index (AGFI)	0.94	Equal to or greater than 0.9
Comparative Fit Index (CFI)	0.99	Equal to or greater than 0.9
Normative Fitness Index (NFI)	0.97	Equal to or greater than 0.9
Tucker Lewis Index (TLI)	0.96	Equal to or greater than 0.9
Incremental Fit Index (IFI)	0.95	Equal to or greater than 0.9

Table 2
Fitness indices of the main research model

#### **Examining the hypotheses**

#### The relationship between competency domains and the competency of managers

The final SEM was used to examine the relationship between competency domains and the competency of managers. The final model is presented in Figure 4. This model is drawn based on the Liserl output.

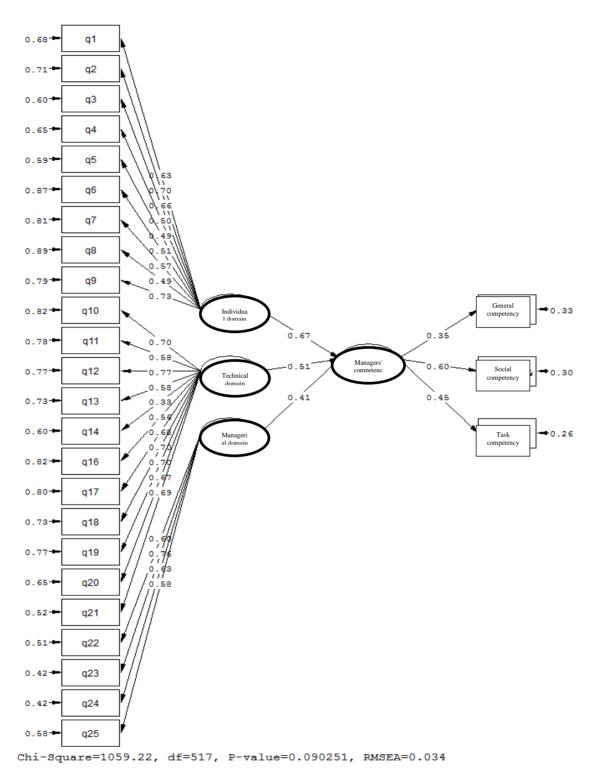


Figure 4
The results of confirmation of the final model of the relationship between competency

The results of the measurement of the model data are given in Figure 5.

domains with the competency aspects of managers

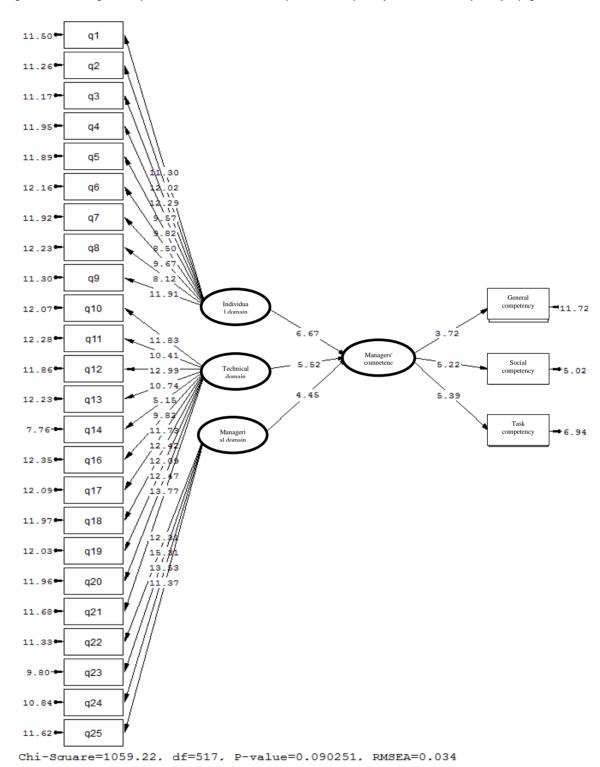


Figure 5
T-value statistics of the results of the final model confirmation

Relationship between competency domains with managerial competency aspects in Table 3.

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Index	The reported value	The acceptable value
Root mean square error of approximation (RMSEA)	0.034	Equal to or smaller than 1
Standardized Chi-Square (CMIN / DF)	2.048	Equal to or smaller than 3
Goodness of Fit Index (GFI)	0.95	Equal to or greater than 0.9
Adjusted Goodness of Fit Index (AGFI)	0.94	Equal to or greater than 0.9
Comparative Fit Index (CFI)	0.94	Equal to or greater than 0.9
Normative Fitness Index (NFI)	0.92	Equal to or greater than 0.9
Tucker Lewis Index (TLI)	0.95	Equal to or greater than 0.9
Incremental Fit Index (IFI)	0.96	Equal to or greater than 0.9

Table 3: Examining the fit indices of the proposed research model

#### Relationship between competency domains and decision-making style

The final SEM is used to measure the relationship between the aspects of competency domains and decision-making style. The final model is presented in Figure 6. This model is drawn based on the Liserl output.

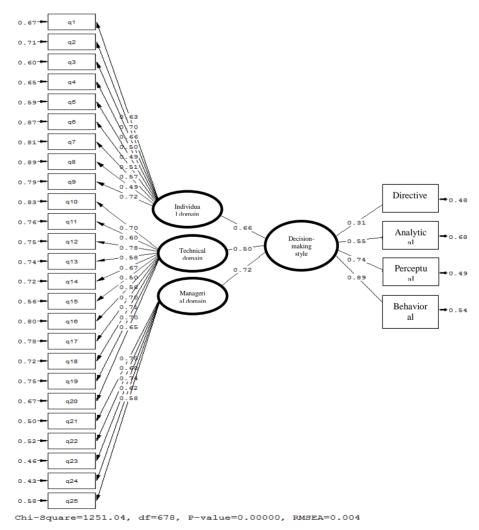


Figure 6. The results of confirmation of the final model of the relationship between competency domains and decision-making style

The results of the measurement of the model data are shown in Figure 7.

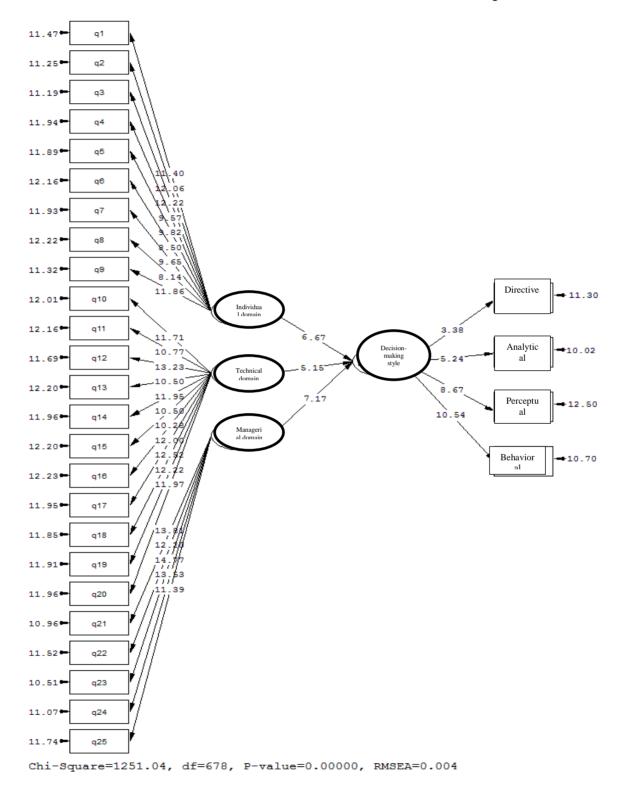


Figure 7
T-value statistics of the results of the final model confirmation of the relationship between competency domains and decision-making style

Moreover, Lisrel output shows the suitability of the suggested research model, so that RMSEA is 0.004, CMIN / DF value is 1.845 and GFI is 0.95.

Other indices for fitting the proposed research model are presented in Table 4.

Index	The reported value	The acceptable value
Root mean square error of	0.004	Equal to or
approximation (RMSEA)		smaller than 1
Standardized Chi-Square (CMIN / DF)	1.845	Equal to or
		smaller than 3
Goodness of Fit Index (GFI)	0.95	Equal to or
		greater than 0.9
Adjusted Goodness of Fit Index (AGFI)	0.95	Equal to or
		greater than 0.9
Comparative Fit Index (CFI)	0.96	Equal to or
		greater than 0.9
Normative Fitness Index (NFI)	0.93	Equal to or
		greater than 0.9
Tucker Lewis Index (TLI)	0.96	Equal to or
		greater than 0.9
Incremental Fit Index (IFI)	0.94	Equal to or
		greater than 0.9

Table 4
Examination of fitness indices of the proposed research model

#### The relationship between decision styles and competency aspects

The final SEM is used to measure the relationship between decision styles and competency aspects. The final model is shown in Figure 8. This model is based on the Lisrel output.

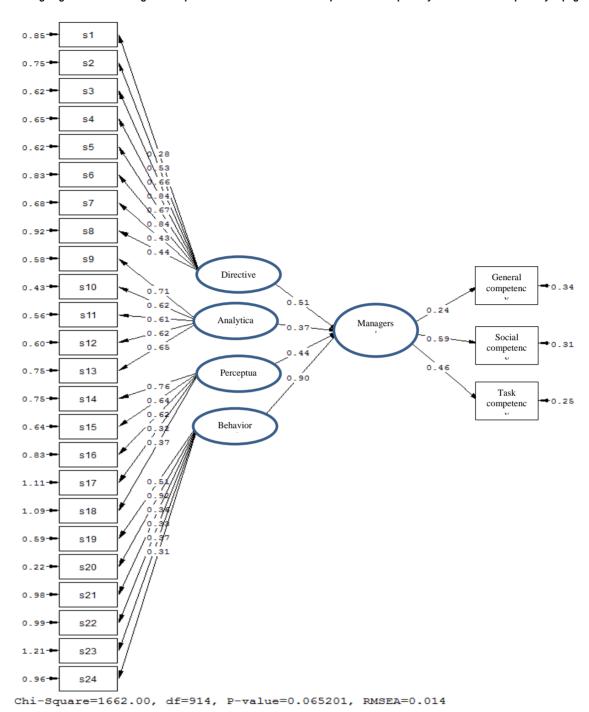


Figure 8
Results of the final model confirmation of the relationship between decision styles and competency aspects

The results of the measurement of the model data are presented in Figure 9.

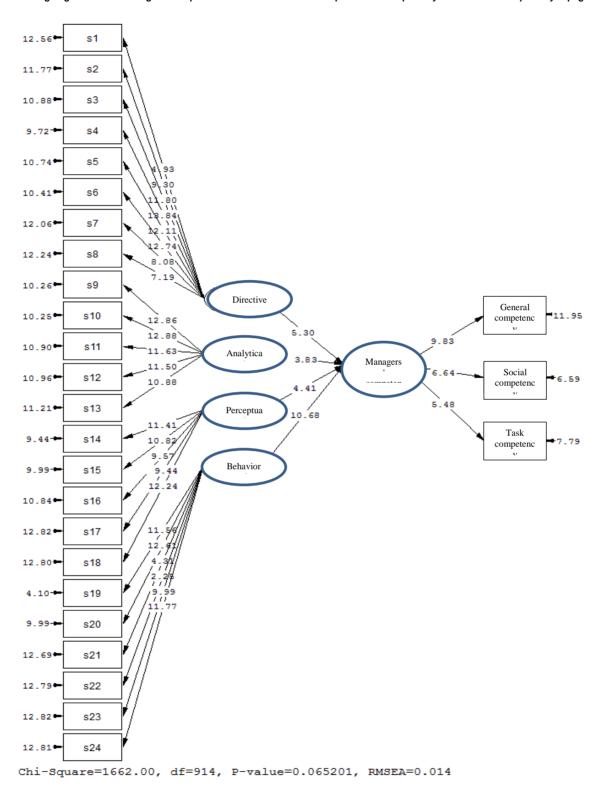


Figure
T-value statistics of the results of the final model confirmation of the relationship between decision styles and competency aspects

Moreover, Lisrel output shows the suitability of the suggested research model, so that RMSEA is 0.014, CMIN / DF value is 1.818 and GFI is 0.94. Other indices for fitting the proposed research model are presented in Table 5.

Index	The reported value	The acceptable value
Root mean square error of approximation (RMSEA)	0.014	Equal to or smaller than 1
Standardized Chi-Square (CMIN / DF)	1.818	Equal to or smaller than 3
Goodness of Fit Index (GFI)	0.95	Equal to or greater than 0.9
Adjusted Goodness of Fit Index (AGFI)	0.96	Equal to or greater than 0.9
Comparative Fit Index (CFI)	0.94	Equal to or greater than 0.9
Normative Fitness Index (NFI)	0.96	Equal to or greater than 0.9
Tucker Lewis Index (TLI)	0.95	Equal to or greater than 0.9
Incremental Fit Index (IFI)	0.97	Equal to or greater than 0.9

Table 5
Examination of the fitness indices of proposed research model

#### Discussion and conclusion

The strength of the relationship between decision styles and competency aspects is calculated as 0.68, showing that correlation is desirable. T-test statistic was 6.64, which is greater than the critical value t at the error level of 5%, i.e., 1.96, showing that the correlation observed is significant and one can state that H0 is rejected at this level and H1 is confirmed. In other words, there is a significant relationship between decision-making styles and competency aspects in SSO.

The strength of the relationship between directive decision-making style and competency aspects is 0.51, showing that correlation is desirable. The t-test statistic is 5.30, which is greater than the critical value of t at the error level of 5%, i.e., 1.96, indicating that the correlation observed is significant. One can state that H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between directive decision-making style and the aspects of competency in SSO.

The strength of the relationship between analytical decision-making style and competency aspects is 0.37, showing that correlation is desirable. The t-test statistic is 3.83, which is greater than the critical value of t at the error level of 5%, i.e., 1.96, indicating that the correlation observed is significant. One can state that H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between analytical decision-making style and the aspects of competency in SSO. The strength of the relationship between perceptual decision-making style and competency aspects is 0.44, showing that correlation is desirable. The t-test statistic is 4.41, which is greater than the critical value of t at the error level of 5%, i.e., 1.96, indicating that the correlation observed

is significant. One can state that H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between perceptual decision-making style and the aspects of competency in SSO.

The strength of the relationship between behavioral decision-making style and competency aspects is 0.90, showing that correlation is desirable. The t-test statistic is 10.68, which is greater than the critical value of t at the error level of 5%, i.e., 1.96, indicating that the correlation observed is significant. One can state that H0 is rejected and H1 is confirmed. In other words, there is a significant relationship between behavioral decision-making style and the aspects of competency in SSO.

To examine the mediating role of decision-making in the hypothesis, one must examine the direct effect of two variables with indirect effect in the case of the involvement of the mediating variable, so in cases of increase of the effect accept the mediation effect. In the present hypothesis, the direct effect is 0.35 in direct direction. Given the greater indirect effect compared to the direct path, the mediating variable increases the effect and the mediating role is confirmed in the present hypothesis. Thus, question 10 is confirmed and one can state that at this level H0 is rejected and H1 is confirmed. In other words, the competency model of SSO managers is confirmed given the intermediary role of decision-making styles.

GFI, AGFI, RMSEA, NFI, NNFI, and CFI indices were used in the study to evaluate the goodness of the fit of the model. For RMSEA, the value less than 0.08 shows the goodness of the fit of the model, which was 0.046 in the present study. One of the general indices for considering free parameters in calculating fitness index is chi square, calculated from the simple division of the chi square on the degree of freedom of the model. Usually, the values between 3 and 5 are acceptable for this index, but the views differ on this. Klein (2005, p. 59) considers values less than 5 as acceptable. In this study, the value of this index is 2.582. In this study, GFI was 0.95; AGFI was 0.94; CFI was 0.99; NFI was 0.97; NNFI, or TLI was 0.96, and IFI was 0.95. Overall, according to the indices presented, the model has good fitness. According to the fitted models, the macro domains of competency of the managers, according to their decision-making style in SSO, are correlated and the relationship is direct. Given the path coefficient obtained in SEM, one can state that the intensity of the relationship between these two variables is high.

#### References

Abedian, A. Designing a Merit Model for Managers of Educational Departments of Ferdowsi University of Mashhad. Master's thesis of Ferdowsi University of Mashhad. 2011.

Amzat, Ismail Hussein and Idris, Datuk Abdul Rahman. "Structural equation models of management and decision-making styles with job satisfaction of academic staff in Malaysian research university". International Journal of Educational Management, Vol. 26num 7 (2012): 616-645.

Asadinejad Taher Gurbi, M.; Mohammad Taghizadeh Zarandi, S. and Akhtartalee, R. Competency models of government agencies managers. The third International Management Conference, Economics and Accounting, Tabriz, Industrial Management Organization of the Azerbaijani Representation. 2015.

Avolio, B. How the culture affects managers' Decision making styles (a cross-cultural approach). Origins, effects and development. San Diego: Elsevier. 2018.

- Designing a model of managers' competence based on the relationship between competency domains and competency... pág. 88
- Barbuto, J. E. "Designing a Model for Managerial Competency and its Impact on Decision-Making Styles in Commercial Banks of the City of Barcelona, Spain". Journal of Leadership Quarterly, Vol: 16 num 7 (2018): 410-439.
- Bavlar, W. & Orsova. Y. Investigating Decision Making Styles and Its Relationship with General Competencies of Managers of Slovak Universities. Academy of management Executive. 2016.
- Cochran, G. Ohio State University extension competency study: Developing a competency model for a 21st century extension organization. Ohio Ohio State University. 2009.
- Dubois, D. D.; Rothwell, W. J.; Stern, D. J. & Kemp, L. K. "Explain the relationship between managers' competency to successfully governmental organizations". Engineering Management Journal, Vol: 22 num 1 (2015): 3-12.
- Haj Karimi, A. A.; Rezaeian, A.; Hadizadeh, A. and Bonyadi Naini, A. "Designing the Competencies Model for Human Resources Managers in the Public Sector in Iran". Public Management Outlook, num 8 (2011): 23-43.
- Javidmehr, M.; Khosrojerdi, T. and Mostafavi, F. Models of Competency Managers. National Conference on New Approaches in Management Sciences, Economics and Accounting, Mazandaran, Komeh Scientific Research Institute. 2015.
- Imani, A. H. and Ghodrati, S. "Conceptual Model of Competency of Human Resources Managers in the framework of Islamic Value System". Publication Quarterly, Ninth Edition, num 33 (2016): 191-221.
- Karimian, R. "Model of competency required by managers and human resources specialists in Gas Company of East Azarbayjan province using ISM technique". Journal of Human Resource Management in Oil Industry, Vol: 9 num 8 (2017): 17-39.
- Kay, C. & Moncarz, E. "Lodging management success: Personal antecedents' achievement KSAs and situational influencers". International Journal of Hospitality Management. Vol: 26 num 3 (207): 33–48
- Minui, R. Investigating the relationship between avoiding decision-making style and competencies of managers of branches of nation banks in Qazvin province. Master's Thesis, Islamic Azad University, Qazvin Branch. 2012.
- Mumford, M. D.; Zaccaro, S. J.; Johnson, J. F.; Diana, M.; Gilbert, J. A. & Threlfall, K. V. "Patterns of leader characteristics: implications of performance and development". Leadership Quarterly Vol: 11 num 1 (2012): 115-133.
- Sandra, D. "Investigating the Impact of Managerial Competencies on Decision-Making Styles among Faculty Members of Universities of British Columbia". Consulting psychologe Journal, Vol: 60 num 4 (2016): 363-392.
- Taslimi, M. S.; Raei, R.; Farzin, A. A.; Barghi, M. "Designing and explaining the model of competency of managers of national projects with a focus on risk". Public Management Publication, Vol: 5 num 4 (2013): 57-78.

Zarei Matin, H.; Rahmati, M. H.; Mousavi, Seyyed Mohammad Mehdi and Vedadi, A. "Designing a Model of Competency Managers in Cultural Organizations of the Country". Journal of Management of Governmental Organizations. Vol. Issue 4 (2014): 19-36.

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