Analysis on Relationship Among Competency and Succession Planning in Telecommunication Infrastructure Company of Iran (TICIR)

Narges Hosseini
Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran

Masoud Pourkiyani
Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran
(Corresponding Author)
pourkaini@yahoo.com

Ayob Sheikhi
Department of Statistics and Computer, Shahid Bahonar University, Kerman, Iran

Received: 31 January 2019    Accepted: 06 April 2019

Abstract. The present study is intended to examine relationship among competency and succession planning in Telecommunication Infrastructure Company of Iran (TICIR). This study was carried out as an applied research in terms of objective and it was assumed as a descriptive survey by taking approach toward interpretative structural modeling. The statistical population of this study comprised of two groups of experts and directors (Directors general, chairmen of offices, responsible experts and experts of TICIR Company). To determine sample size for first statistical population, 20 of experts were elected using non-randomized and selective sampling method and in order to specify sample size for second statistical population 340 participants were chosen including
directors general, deputies of directors general, chairmen of offices, responsible experts and other experts of TICIR Company. The result from succession planning model showed that the variable of succession planning reached to a level higher than satisfactory rate therefore all of the related elements were placed higher than satisfactory level except variable of commitment that was at good level. Similarly, variable of competency was also placed at the level higher than satisfactory rate in this study. Therefore, all of these variables reached to the level higher than satisfactory rate.

**Keywords:** Succession Planning, Competency, Telecommunication Infrastructural Company of Iran (TICIR).

1. **Introduction**

The management and leadership of organizations will not succeed in complex and competitive modern world by means of classic techniques and the organization should employ any mechanism to overtake to each other. In such a competitive and highly challenging arena, organizations have to inevitably to be focused on categories which may be assumed as serious threat against them in the near future. The results of studies indicate shortage of administrative forces and rising need to much more capable, highly talented, skilled, and competent directors than today managers in organizations in the forthcoming years and the fact is that recognition and exploitation from competent directors is one of the most essential challenges the organization are exposed for passing over the difficult conditions in tomorrow (Borbor Jafari & Ahmadvand, 2016). Succession planning is a dynamic and constant process if implemented, fresh blood is injected into the arteries of the organization. Thus, succession planning possesses more importance in prospective and future-maker organizations every day and the prosperous and prospective director should identify human talents of his/her organization and prepared them for incumbency of these jobs by appropriate administration and succession planning (Borbor Jafari & Ahmadvand, 2016).
2. Literature review

According to the conducted studies, succession planning achieves more significance in prospective and future-maker organizations daily and the prosperous and prospective director should recognize human talents of his/her organization and prepared them for occupancy of these professions by duly management and succession planning. The successful directors have assumed successor’s role and subject of succession planning very vital. Succession planning is deemed as the central point in planning for organizational and professional workforce and needs to taking strategic approach for the future in the long run where this ensures the competent and qualified to be available for future positions (Borbor Jafari & Ahmadvand, 2016).

Whereas manpower is deemed as a key axis for social, political, and economic activities etc. therefore proper administration of this source is assumed as one of the important strategies for comprehensive development and if they are employed with suitable composition, evaluation, stabilizing or displacement of them based on competency system may relatively compensate for possible shortages of other sources. The competent management is deemed as the main axis in economic, and social and cultural development for organizations. Method of election of competent directors and personnel and governing criteria over this election is one of the problems for organizations since scholarliness and competency of officials and personnel is the foremost success factor in an organization (Hozoori & Abdoli, 2015).

Thus what it play essential role in prosperity of society is competency and qualification of directors and personnel in the given society. The organization success in achieving of organizational goals and missions is subject to election more competent personnel and directors that deserve a lot of attention in these organizations and some criteria should be considered to measure personnel and elect them (Ghorbsan Nejad & Isakhani, 2016).

In order to enable the organization to utilize and exploit optimally from competencies of human resources, the needed special and general competencies should be perceived for achieving of their strategic goals. For recognition and accurate determination of knowledge, skills, and
behavioral requirements in main section of manpower, organization should be capable to model main competency and take the needed measures for development and employing them (Sepahvand et al., 2016). Boyatzis started his studies based on works and findings of McClelland in 1982 and studied basic and important information from a few noticeable surveys and analyzed these data again including directors and defined competencies for them to identify superior and excellent directors in organizations. Along with follow-up of studies of Boyatzis, Schreuder investigated the relationship between individual competencies and working backgrounds and organizational environment which were later developed. With respect to Boyatzis- Schreuder competency model, six dimensions were examined including occupational knowledge and information, skills, personality characteristics, attitude and insight within framework of individual dimensions and professional reputation and public repute within framework of social dimensions. Telecommunication Infrastructure Company of IR (TICIR) is responsible for administration on one of the governmental fields in Ministry of Information Technology and Communication. The structure of human resources has a long history in this organization and it will reach to retirement level in a near future. With respect to vital role of this organization, management of organization has put dealing with subject of succession planning for organizational personnel as high on the agenda. On the other hand, some fresh and young workforces have joined to the organization in which they are assumed as the best and most available capital and resource to meet this vital requirement. Accordingly, it needs to design and execution of a process for realization of key objective to provide appropriate directors to prevent from occurrence of cessation in playing of role and realization of organizational goals to be capable to be drawn within framework of succession planning process.

Chlebikova et al., in an investigation under title of ‘Planning for personal development and succession’ expressed that planning for personal development might increase motivation among personnel in the company and it enabled personnel to develop their professional skills and increased work attraction in the given company. Planning of personal development in organizations aims to provide success to cover the future
need to human resources for special jobs in the company (Chlebikova et al., 2015).

In a study titled ‘succession planning in Iranian health system: case study in Ministry of Health and Medical Training and Sciences’, Mehrtak et al., declared that succession planning might develop private ownership vulture, commitment of personnel to organization, and developing of organizational commitment and rising of organizational persistence. They conducted a qualitative study to evaluate status of succession planning in Iranian health system. Their findings indicated lack of appropriate succession planning in Iranian health system (Mehrtak et al., 2014).

In another investigation done by Fang et al., under title of ‘Competency development among Taiwanese healthcare middle manager’, they explored competency between middle rank directors. This study mainly aimed to prioritize different aspects of competencies of directors where these factors were classified for election of middle managers (high level directors) at first level as competencies of personality, planning, management, professional abilities, and personal capabilities(Fang et al., 2010).

In a study under title of ‘design of a competency-based sustainable competitive advantage model for human capital in insurance industry’, Sepahvand et al., carried out a survey. Based on research findings, the sustainable competitive advantage model was designed according to resource-centered theory by approach of pivotal competencies of human resources including factors of know-how, organizational commitment, flexibility, creativity, job satisfaction and occupational ethics in insurance industry (Sepahvand et al., 2016).

Imani and Ghodrati, examined conceptual model of directors of human resources in a study within framework of Islamic value-driven system. The research min concepts (including abilities, personal characteristics, knowledge and awareness, skills and attitudes of directors of human resources) were extracted and operationalized within framework of Islamic value-driven system and they were totally extracted in 10 dimensions with 43 indices. The research findings indicated that concept of directors’ skills within the field of human resources management and
concept of abilities and personal characteristics of directors were maximum important while concept of knowledge and awareness of directors had the minimum importance (Imani & Ghodrati, 2016) in another survey, Bidmeshki et al., compared status quo of succession planning and talent management in favorable status in public universities in the studied population for which they utilized Rothwell’s model included seven variables (Bidmeshki et al., 2014).

Zarei Matin et al., conducted a study to design competency model for directors in Iranian cultural organizations. This investigation was carried out to identify effective management competencies of cultural organization in two phases of designing and determination of validity of the model. Finally, the model of competency of directors in cultural organizations was designed and proposed and it included three competency-centered variables (cultural attitude, cultural motive, and normed intelligence), eight major competency indices, and 23 minor competency elements (Zarei Matin et al., 2014).

Hooshiary and Rahimnia executed a study titled ‘presentation of the competency model for directors of branches in banking system.’ The combinatory or hybrid methodology was utilized in this study in qualitative part of study, 12 superior banking directors were interviewed. The content analysis method was employed to analyze the interviews. The findings indicated that all dimensions and variables of competency model for banking directors were approved except variable of experience (Hooshiary & Rahimnia 2013).

Ghasemi et al., explored difficulties and challenges for establishment of succession planning in Iranian administrative system. Their findings showed that the lack of supporting from top management, non-conformity of succession planning with organizational strategic plans, inconsistency of management, extra official formalities, traditional attitude, long-efficiency nature, and lack of transparency in project implementation were some of challenges against establishment of succession planning and one can pass over these challenges by benefitting from common sense, attraction of support from top management, allocation of certain unit to succession planning, disambiguation, and through changing of attitudes and culture-building (Ghasemi et al., 2013).
The companies which are active in information and communication technology, especial TICIR Company, can remarkably contribute to Iran in today world competition to achieve a position proportional to their rank. In this course, human resources may play an important role. Alternately, experiences and skills of personnel are some resources the
organizations spend a lot of costs to acquire them. Nonetheless, organizational directors have forgotten role of these forces because they imagine the experienced and skillful personnel are always present in organization and they do not need to plans for developing of human resources while exit of human resources imposes some costs to the organizations since organization have to consume time sand cost to train personnel again. With respect to the aforesaid contents, the present research is intended to analyze relationship among competency and succession planning in TICIR Company. The questions of this study are as follows: How is the status of succession planning in TICIR Company? How is the status of competency in TICIR Company? Is there any relationship among competency and succession planning in TICIR Company? What are the characteristics of succession planning in TICIR Company? How much succession planning model is valuable in TICIR Company?

3. Method
The methodology used in this study is of descriptive- survey type by taking interpretative structural modeling approach. The statistical population of this study is composed of two groups: the first group includes experts whose quantity is uncertain and dispersed and the second group comprises of all directors general, deputies of directors general, chairmen of offices, responsible experts and also other experts in TICIR Company throughout Iran where they were totally 2217 members. Using of non-randomized selective sampling method to determine sample size for first statistical population, we elected 20 respondents of experts by considering some criteria such as accessibility, scholar expertise in university and academic centers where they studied, having the relevant educational degrees concerning book or paper. To determine sample size for the second statistical population i.e. directors general, deputy of directors general, chairman of offices, and responsible experts and other experts of TICIR Company, they were chosen by classified sampling method with 340 members.

To specify and prioritization of dimensions and indices of competency-based succession planning in TICIR Company, the required data were extracted by means of a questionnaire from focus group (experts) using
Delphi technique. Four questionnaires were utilized for this purpose. The first questionnaire was employed for measurement of dimensions and variables of succession planning. The second questionnaire was utilized to measure dimensions and variables of competency. Third questionnaire was used for measurement of status of succession planning. Fourth questionnaire was utilized to measure status of competency. Exploratory factor analysis and confirmatory factor analysis were utilized to examine construct validity of measurement tools and also appropriateness of psychometric criteria in questionnaires as important presuppositions of structured equations. Using Cronbach alpha coefficient, internal reliability of questionnaires of succession planning and competency was calculated and whereas Cronbach alpha coefficients were greater than 0.7, internal reliability was confirmed for the questionnaires. The questionnaires were distributed and collected with the presence of respondents and via electronic media.

4. Findings

Normality of studied variables was analyzed before review on research hypotheses. Kolmogorov-Smirnov test was employed for analysis on hypothesis of normality of variables. The results of this test are given in the following table.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kolmogorov-Smirnov</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succession planning</td>
<td>0.068</td>
<td>0.077</td>
</tr>
<tr>
<td>Competency</td>
<td>0.074</td>
<td>0.083</td>
</tr>
</tbody>
</table>

Likewise, Pearson’s correlation coefficient was utilized to determine relationship between variables. The resultant findings from correlation test are given in Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kolmogorov-Smirnov</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succession planning</td>
<td>1</td>
<td>0.860*</td>
</tr>
<tr>
<td>Competency</td>
<td>0.860*</td>
<td>1</td>
</tr>
</tbody>
</table>

* Significant at level 0.05 (P<0.05); ** Significant at level 0.01 (P<0.01)
Given the Pearson’s correlation coefficient and also this quantity (P-value = 0) there is significant and direct relationship among competency and succession planning in TICIR Company at level 0.01. The multivariate regression was utilized to review relationship between competency factors with succession planning in TICIR Company.

Table 3. Analysis on relationship between variables

<table>
<thead>
<tr>
<th>F-statistic</th>
<th>P-value</th>
<th>Determination coefficient (R²)</th>
<th>Adjusted determination coefficient</th>
<th>Durbin-Watson statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>330.873</td>
<td>0</td>
<td>0.856</td>
<td>0.854</td>
<td>1.815</td>
</tr>
</tbody>
</table>

The results derived from regressive analysis and the given determination coefficient showed that variables of knowledge and information, skills, personality characteristics, attitude and insight, and public repute had significant prediction effect on succession planning (P-value<0.05). Likewise, according to partial correlation coefficient index, among effective competency factors on succession planning in TICIR Company, variable of public repute has the highest relationship with succession planning. With respect to Durbin-Watson statistic, it can be implied the errors are not correlated. Similarly, with respect to the given values in Table 3, there is no multi-co linearity among predictor variables in the presented model.

Table 4. Table of regression coefficients for effective factors of competency on succession planning

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardized coefficient</th>
<th>T-statistic</th>
<th>P-value</th>
<th>Partial correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge and information</td>
<td>0.245</td>
<td>6.488</td>
<td>0</td>
<td>0.335</td>
</tr>
<tr>
<td>Skills</td>
<td>0.322</td>
<td>8.074</td>
<td>0</td>
<td>0.405</td>
</tr>
<tr>
<td>Personality characteristics</td>
<td>0.191</td>
<td>5.620</td>
<td>0</td>
<td>0.294</td>
</tr>
<tr>
<td>Attitude and insight</td>
<td>-0.109</td>
<td>-2.813</td>
<td>0.005</td>
<td>-0.152</td>
</tr>
<tr>
<td>Professional reputation</td>
<td>0.034</td>
<td>0.932</td>
<td>0.352</td>
<td>0.051</td>
</tr>
<tr>
<td>Public reputation</td>
<td>0.354</td>
<td>8.618</td>
<td>0</td>
<td>0.427</td>
</tr>
</tbody>
</table>

The indices of goodness of fit are given for each of the related models to dimensions of succession planning in the following diagrams. Based on goodness of fit indices, the given model is appropriately fitted. With
respect to the given results, it can be said the indices are well described for latent variable.

Fig. 2. Path analysis for variable of creating commitment

Fig. 3. Path analysis for variable of assessment of requirements for current work

Fig. 4. Path analysis for variable of assessment of requirements for future work

Fig. 5. Path analysis for variable of personal performance
The indices of goodness of fit are given for each of the related models to dimensions of competency in the following diagrams. Based on goodness of fit indices, the given model is appropriately fitted. With respect to the given results, it can be implied the indices are well described for latent variable.
The indices of goodness of fit are given for both succession planning and competency models in the following tables. There are several techniques to estimate total fitting of the model by the observed data. The criteria of GFI, AGFI, RMSESA, NFI, NNFI, and CFI were employed in this study to assess goodness of fit for total model.

**Table 5. Fitting indices for succession planning model**

<table>
<thead>
<tr>
<th>Index</th>
<th>Favorable statistic value</th>
<th>Reported value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>≤0.08</td>
<td>0.036</td>
</tr>
<tr>
<td>Chi² ratio ( (x/df) )</td>
<td>&lt;3</td>
<td>2.024</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>≥0.90</td>
<td>0.921</td>
</tr>
<tr>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>≥0.90</td>
<td>0.945</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>&gt;0.90</td>
<td>0.910</td>
</tr>
<tr>
<td>Normed Fit Index (NFI)</td>
<td>&gt;0.90</td>
<td>0.987</td>
</tr>
<tr>
<td>Tucker &amp; Lewis Index (TLI)</td>
<td>&gt;0.90</td>
<td>0.941</td>
</tr>
<tr>
<td>Incremental Fit Index (IFI)</td>
<td>&gt;0.90</td>
<td>0.956</td>
</tr>
</tbody>
</table>
Fig. 12. Path analysis for variable of succession planning
Fig. 13. Path analysis for variable of competency

Table 6. Fitting indices for competency model

<table>
<thead>
<tr>
<th>Index</th>
<th>Favorable statistic value</th>
<th>Reported value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>≤0.08</td>
<td>0.059</td>
</tr>
<tr>
<td>Chi2 ratio (x/df)</td>
<td>&lt;3</td>
<td>2.280</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>≥0.90</td>
<td>0.898</td>
</tr>
<tr>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>≥0.90</td>
<td>0.923</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>≥0.90</td>
<td>0.901</td>
</tr>
<tr>
<td>Normed Fit Index (NFI)</td>
<td>≥0.90</td>
<td>0.924</td>
</tr>
<tr>
<td>Tucker &amp; Lewis Index non-normed fit index (TLI)</td>
<td>≥0.90</td>
<td>0.996</td>
</tr>
<tr>
<td>Incremental Fit Index (IFI)</td>
<td>≥0.90</td>
<td>0.909</td>
</tr>
</tbody>
</table>

5. Conclusions

The succession planning model used in this study included eight steps as follows: creation of commitment, assessment of requirements for current work, evaluation of personal performance, assessment of requirement for the future work, evaluation of personal talents, training programs for personnel, working values, and use of time. Likewise, given Boyatzis-
Schreuder model in this study, the proposed model comprised of six dimensions which were analyzed including occupational knowledge and information, skills, personality characteristics, attitude and insight within framework of personal dimensions, professional reputation, and public repute within framework of social dimensions. This model shows that development of managerial competencies was followed by improvement of effectiveness and subsequently dimensions of competencies of directors should be comprehensively developed to achieve effectiveness management. Based on the derived results from this study, it can be concluded that variable of competency has been ranked higher than satisfactory level. Therefore, all dimensions of this variable are placed at level higher than satisfactory rate. According to the given results about personal dimension the mean value of this variable is 3.56 and it is ranked higher than satisfactory level. Thus, it is suggested for personnel to enjoy relevant and expert education and training to do occupational tasks to improve level of occupational knowledge and information in organization. Different training courses should be held for this purpose with respect to expertise of personnel in organization. According to the given results about social dimension, it is suggested to employ new and innovative solutions to increase abilities of personnel for improvement of occupational reputation of management thereby personnel of this organization to enjoy professional reputation. Similarly the ground should be necessarily prepared for establishing of constructive occupational relations between personnel of this organization in this regard. The occupational conditions should be prepared for improving of public repute in such a way that the personnel to enjoy emotional and mental stability when working. Likewise, the organizational personnel should well perceived key objectives and processes and organizational operation.

References
Ardalan, Mohammad Reza et al. (2007). Analysis on relationship among individual- organization unity with organizational culture in public university at west of Iran (Hamedan, Kermanshah, and Kurdistan), Quarterly of research and planning in higher education, 14(47): 97-131.
Analysis on Relationship Among Competency and Succession Planning in ...

Bordbar, Gholamreza, Karimi, Ozhan, Zare, Naser (2012). Recognition of elements and models of competent- selection for optimization of succession planning of personnel. Two quarterlies of human resources management studies, Comprehensive University of Imam Hossein (PBUH), 4th year, vol. 1: 87-114.


Fang, C.H., Chang, S.T., and Chen, G.L. ,(2010), Competency development among Taiwanese healthcare middle manager: A test of


