Designing a Strategic Human Resource Management Model in the Ministry of Science with Emphasis on Strategic Thinking

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Abstract
The present study aimed to design a strategic human resource management model in the Ministry of Science with emphasis on strategic thinking. The statistical population of the present study consisted of two groups, the first group included experts familiar with the subject under study and the second group included faculty members at universities in the southeast region of the country (Kerman, Sistan and Baluchestan, Hormozgan). Stratified sampling method in line with the volume of classes was also performed. At last, a total of 340 questionnaires were completed and collected. Kaiser-Meyer-Olkin (KMO) criteria were used to ensure the validity of the data and to examine the accuracy of the sampling before the factor analysis. Based on the findings, the value of KMO on strategic thinking, strategic human resources management were 0.903 and 0.913, respectively, which is an acceptable value. Data were analyzed using SPSS software version 23 and AMOS version 23. In the present study, a significance level was considered 0.05. Statistical methods such as one-sample t-test, confirmatory factor analysis and structural equations were used to investigate the research questions. Results from the structural equation model demonstrated that there was a significant relationship between strategic thinking and strategic human resource management.

Key-words: Strategic Thinking, Strategic Human Resource Management.
1. Introduction

It is quite clear that the world has encountered in the 21st century with an immense competition, development of emerging markets, uncertain environmental factors, prevalence of superior technologies and expansion of businesses, making the organization's survival difficult in this complex and dynamic environment. Under these circumstances, simple reliance on traditional thinking has no result but failure and strategic thinking is said to lead to the creation of strategic insight in the direction of success and survival of the organization (Bayazi Tehranband et al., 2019). Managers with strategic thinking have a better understanding of a strategic plan and enjoy a more effective performance (Haghighat Monfared and Shabani, 2015). Organizations should use managers with strategic thinking ability to promote performance and to design creative strategies (Poursadegh and Yazdani, 2011). An inclusive strategic thinking creates makes managers and employees of the organization to have a better understanding of the organization, leads to more communication and interaction between employees and managers and results in more employee productivity (Ben, 2001). Strategic thinking ability can help managers understand, identify, predict and control future events and influence future change, instead of being affected by those changes (Zabihinia and Imam Gholizadeh, 2015). Howard maintains strategic thinking is a kind of forward-looking process, considering only those who have forward-looking abilities to be able to think strategically (Howard, 1989). Strategic thinking is the process of finding alternative solutions to compete to create value for customers (Abraham, 2005). Strategic thinking helps managers to develop an appropriate strategy for survival and success (Maamai et al., 2013).

For Lidka (1998), strategic thinking is known as an individual activity which has penetrated within individuals. Strategic thinking is a continuous process aimed to remove ambiguity and to give meaning to complex environmental developments. This process involves an analysis of the situation as well as a creative combination of analysis results in the form of a successful strategic plan (Meshbaki et al., 2008). Lidka proposed 5 main elements for strategic thinking: 1- systemic attitude 2- focus on goal 3- intelligent opportunism 4- central hypothesis 5- thinking in time (Khaksar et al., 2013). Alomari (2019) demonstrated a positive and significant relationship between strategic thinking and strategic human resource management. Managers makes use of strategic thinking for the best decisions (Alumari, 2019). Under the current situation, competitive advantage, value creation and guaranteeing of long-term growth are increasingly dependent on the role of human capital in organizations, i.e., a set of knowledge, attitudes, behaviors, competencies and experiences of employees. Human resource management considers human beings as a vital and privileged element.
for survival, development, competition and organizational superiority. For this, organizations must recruit, develop, motivate and maintain such capital, which is referred to as human resource strategy (Yousefi and Mozhd Kanloo, 2015). Human resources, especially in specialized professions, are considered as the driving force of organizational strategic plans as the management requires such a strategic approach (Bahrami et al., 2012). Human resources are considered a strategic factor of any organization (Mirsapasi, 1999).

In fact, the successful conduct of each task in the organization, including planning, execution and monitoring over an organization's macro strategies, implementation of development programs and advancing of organizational goals will not be achieved without management and serious attention to human resources. Proficient and efficient human resources are the main factor of success in the process of economic development, with other resources becoming a competitive advantage if the human resources are used properly and timely (Asghari, 2007). Human resources are considered a strategic factor of any organization (Mirsapasi, 1999). Thus, the absence of a strategic and long-term attitude to human resource management in the study organization leaves negative effects on proper planning on input, retention and exit processes of employees in the organization, thereby reducing productivity, effectiveness, and unsuccessful organizational missions (Janloo, 2017). Also, failure to pay attention to this issue will cause much irreparable damage to the organization (Bashir Banaem, 2011). Strategic human resource management seeks to coordinate between the various activities of the organization, creating appropriate opportunities and preventing potential threats (Abtahi and Mousavi, 2009). Strategic human resources management enhances human resource management and focuses on the competency of human resource management to fulfill strategic organizational goals (Heidari and Shahamat, 2017). Therefore, this study aimed to design a strategic human resource management model in the Ministry of Science with an emphasis on strategic thinking; in this regard, we want to answer the following questions:

First, what is the strategic human resource management model characterized with in the Ministry of Science with an emphasis on strategic thinking? Secondly, to what extent is it valid?

2. A Review of the Research Background

In their research on Jeffrey Fefer's Seven Factors (Careful recruitment, effective employee communication, training and human resource development, service compensation, management development, equal job opportunities and flexible work plans), Hong and Chang (2005) stated that these factors are critical for the organization's success. Heatrop (1999), Sanchez et al. (2015),
Rostamzadeh et al. (2016) applied the four factors (selection, participation, performance appraisal, service compensation and training). Nego et al. (2008) also used the four factors of selection and employment, training, performance appraisal under the title of strategic human resource management. Various studies indicate that strategic measures by the human resource management is one of the most significant factors affecting the efficiency and effectiveness of organizations. Undoubtedly, the survival of life of organizations has a direct relation with creativity, innovation, effectiveness and performance of employees and any proper measures in this regard can lead to increasing the status of the organization (Fallahi Maman, 2016). Damanpour and Margiorit posited that organizations can make employees think creatively and innovate using certain measures by the human resource management such as (recruitment, training, participation, performance appraisal and reward) (Damanpour and Margiorit, 1991).

Zabihi and Yaghoubi (2014) believe that strategic thinking directs different levels of management in setting goals, identifies waves of change, predict and tolerate new opportunities and threats, and strengthens management logic in appraising the need for capital and manpower and hence enables managers to make decisions. B. Young et al. (2013) in their study entitled "Records and Strategic Thinking Results", investigated the factors affecting strategic thinking at the organizational level in different areas of management, including marketing strategy, strategic management and human resource management, indicating that the result of market and technological turmoil is the promotion of strategic thinking at the organizational level and that there is a positive relationship between strategic thinking and marketing performance. In a study, Sharifi et al. (2014) confirmed that there was a positive and significant relationship between strategic thinking and the efficiency of the staff at the Ilam State University. Also, when strategic thinking dimensions (systemic attitude, strategic determination, advancement based on scientific approach, intelligent opportunism, thinking in time) are measured individually and without regard for each other as with relation to the employee's performance, the results illustrated that there is a direct, positive and significant relationship between all five dimensions of strategic thinking and employee performance. Nazemi et al. (2010) in a study entitled Strategic Thinking and Performance demonstrated that there was a direct relationship between strategic thinking and performance (efficiency) in the companies under study. In another study, the strategic and universal functions of human resources were considered as recruitment, selection, service compensation, employee participation, and training (Absar et al., 2010). In another study, performance appraisal and service reward were added to these functions, and in yet another study, provision of human resource, training, performance appraisal, service reward,
and employee participation were regarded as parts of the strategic human resource management functions (Chen and Hong, 2009).

3. Theoretical Framework

3.1. Strategic Human Resources Management

It is a method to decide about the objectives behind the organization's plans as they are related to such issues as: employment, recruiting staffs, training, employee performance management rewards, etc. (Samei, 2009). Strategic human resource management: Inclusive foresightedness, innovation and organized transformation in meeting human resources in the organization, developing and improving it, providing an acceptable quality of work life for it and finally utilizing this strategic resource in an effective way (Mirsapasi, 2000). Strategic human resource management is the process of development and implementation of human resource strategies to connect human resource policies to the strategic objectives of the organization. In fact, strategic human resource management is an approach to decision-making about the objectives and plans of the organization in the form of policies, plans and operations related to employment relations, recruitment, training, improvement and efficiency management. Its main objective is to create strategic competency through recruitment of proficient, committed and motivated staffs to achieve sustainable competitive advantage (Moradi and Heshmati, 2014). Strategic human resource management as a new field of managerial performance should clearly concentrate on theoretical logic and perceiving how human resource actions can lead to greater organizational performance (Ranjbar and Pour Kiani, 2013). Strategic human resource management provides a perspective through which one can deal with important issues or success factors related to individuals, as well as make strategic decisions which are found to have a major impact on an organization's behavior and success in the long run (Armstrong, 2012). Strategic human resource management is an approach to decide on the goals and plans of the organization in form of policies, programs and operations related to employment relations, recruitment, training, improvement and performance appraisal. In recent years, strategic human resource management has been largely applied in developed countries, so that according to researched, over half of organizations in these countries have applied the results from the development of human resource strategies for their successes (Moradi and Heshmati, 2014). The need for strategic human resource management suggests that goals should be chosen in line with the overall strategy of the organization. These objectives show the future development of the organization. The major concerns of the
organization consistent with the organizational structure include the adaptation of human resources to future needs, quality of services and products, being closely related to human resource issues (Nasiri, 2015).

3.2. Strategic Thinking

In today's world, where competitive advantage-making factors are consistent with developments, only a sustainable competitive advantage can create a necessary understanding or insight into the continuous recognition of these factors, thus making the existence of strategic thinking critical for today's organizations. One of the problems encountering organizations is the absence of strategic thinking among top managers. An absence of strategic thinking by senior managers at firms and organizations deprives them of using new opportunities (Soltani, 2018). An absence of strategic thinking reveals itself as a major shortcoming in the performance of organizations and this thinking has a great impact on the success of organizations (Asadpour et al., 2018). In reality, lack of strategic organized thinking leads to the ineffectiveness of an organization (Stacey, 2010). Thinking about the future and creating multiple futures should contain insights that challenge our worldview and mental construct, otherwise we will remain in the same old mental construct and face undesirable consequences (Lashkar-Boloki, 2013). Inclusive strategic thinking makes managers and employees better understand the organization, and creates more communication and interaction between employees and managers, thus resulting in greater employee productivity. On the other hand, if an organization is in a situation such that most of its directors enjoy strategic thinking at different levels and have a strategic perspective on innovation and creativity in the organization, then they will always challenge the status quo of the organization and seek a new situation (Yaghoubi and Et al., 2017). Strategic thinking is important for the orientation and sustainability of organizations (Dionzio, 2017). Strategy researchers have stated that strategic thinking is a significant process to strengthen competitive advantage (Marshad, 2019). Today, strategic thinking is seen as a very important and valuable component in macro-management in organizations and business environments (Ghorbani and Ghasemzadeh, 2016). Lidka (1998) believes that in fact, strategic thinking is a foundation to create new strategies aimed at developing competition rules and formulating a completely different perspective based on the current situation (Bagheria Mashhadi and Salari, 2016). Lidka (1998) argues that although strategic thinking is initiated by individuals, they should use an organizational context that endorses strategic thinking and discourse in the organizational environment, which is regarded as a basis for creating new strategies.
and establishing competition rules. It is a different perspective from the current situation. The role of strategic thinking is considered to be an attempt to innovate and envisage a new and very different future for the organization, which may lead to redefining the main environmental strategies where the company is operating (Salamzadeh et al., 2018).

According to the aforementioned principles, the following questions are raised to answer the main question of the research:

1. What is the strategic thinking situation in the Ministry of Science?
   1.1. What is the strategic thinking situation in the Ministry of Science?
   1.2. What is the situation of focus on goal in the Ministry of Science?
   1.3. What is the situation of intelligent opportunism in the Ministry of Science?
   1.4. What is the situation of time thinking in the Ministry of Science?
   1.5. What is the situation of central hypothesis in the Ministry of Science?

2. What is the status of strategic human resource management in the Ministry of Science?
   2.1. What is the situation of exact employment situation in the Ministry of Science?
   2.2. What is the situation of effective staff communication in the Ministry of Science?
   2.3. What is the status of training and development of human resources in the Ministry of Science?
   2.4. What is the situation of service compensation in the Ministry of Science?
   2.5. What is the situation of management development in the Ministry of Science?
   2.6. What is the situation of equal job opportunities in the Ministry of Science?
   2.7. What is the situation of flexible working plans in the Ministry of Science?
   2.8. What is the situation of human resources participation in the Ministry of Science?
   2.9. What is the situation of performance appraisal in the Ministry of Science?

Figure 1 - Analytical Model

| Strategic Human Resources Management | Criterion variable |
|--------------------------------------|--------------------|
| Previous variable                    | Strategic Human Resources Management |
| Strategic thinking                   | Careful employment |
| Systems perspective                  | Effective employee communication |
| Focus on the goal                    | Training and development of human resources |
| Intelligent opportunism              | Service compensation |
| Thinking in time                     | Management development |
| Central Hypothesis                   | Equal job opportunities |
|                                      | Flexible work plans |
|                                      | Participation |
|                                      | performance appraisal |
4. Research Method

In the present study, a descriptive research method, i.e., a correlational analysis was used according to the nature of the subject and its questions; This study was applied and developmental in terms of objectives. Expert opinions were used to design data collection tools, to develop the primary research model, and to specify the indicators of the final research model. In this study, two questionnaires were used to gather the data. The first questionnaire aimed at measuring the factors related to strategic thinking as it contained 29 questions, while the second questionnaire aimed at measuring the strategic human resources management consisting of 31 questions.

To ensure the content validity of the questionnaires, expert opinions in this area were taken benefit of. As well, the construct validity of the questionnaires was investigated using the confirmatory factor analysis. The validity of the questionnaire (strategic thinking) was calculated to be 87.9. The validity of the questionnaire (strategic human resource management) was found to be 90.6%. Cronbach's alpha method was used to calculate the reliability of internal consistency. Cronbach's alpha values were found to be higher than 0.7. The internal reliability of all dimensions was also confirmed. The value of these statistics indicated that the questionnaires had greater rate of reliability. In this study, in order to analyze the data, SPSS, AMOS, hypothesis testing, descriptive statistics and inferential statistics were used, and software was applied to analyze the data.

In most researches, there is a need for formulas by which to determine the minimum sample volume as there are financial, human and time limitations (Khaki, 2004). Given that the structural equation approach and confirmatory factor analysis were used, the sample size was considered to be between 5 and 10 times the number of questions in the questionnaire (Westlan, 2010). This number varies from 215 to 430 depending on the value stated. Considering the probabilities related to the non-usability of a number of filled-in questionnaires, a sum of 380 questionnaires were distributed at different time periods in the day, and finally 340 questionnaires were used as a basis for statistical analysis. Sampling was done via stratified method and according to the volume of the classes.

5. Findings

5.1. Description of Research Variables

The variable of strategic thinking consists of 29 five-choice questions. The observed mean for this variable is (4.03), standard deviation (0.59), lowest (1.46) and highest (5.00). To better interpret the mean, the Abbas Bazargan et al.’s scoring scale was used (Bazargan et al., 1999). According to
the experimental mean (4.03) and based on the Abbas Bazargan et al.’s scale, one can conclude that
the variable of strategic thinking is at a strong level. According to the empirical means and based on
the Abbas Bazargan et al. s’ scale, it can be said that such components as focus on goal and intelligent
opportunism are at a strong level and components of systemic thinking, central hypothesis as well as
time thinking are at a good level. The variable of strategic human resource management consists of
31 five-choice questions. The observed mean for this variable is (3.44), standard deviation (0.79),
lowest (1.61) and highest (4.97). According to the experimental mean (3.44) and based on the Abbas
Bazargan et al.s’ scale, one can conclude that the variable of strategic human resource management is
more than satisfactory.

Based on the experimental mean and the Abbas Bazargan et al.s’ scale, it can be stated that
such component as equal job opportunities is at a good level, while service compensation at a
satisfactory level with the components of accurate employment, effective staff communication,
training and development of human resources, development management, flexible work plans and
participation being more than satisfactory.

5.2. Analysis of Research Questions

Question 1: What are the components of strategic thinking in the Ministry of Science,
Research and Technology?

In this research, strategic thinking components were studied through library studies
(investigating written documents such as books, magazines, etc.). Concurrent with identifying the
components and indicators of each of the variables, interviews with expert and relevant individuals
(including professors and experts familiar with the subject of human resource management) were
conducted. Expert interviews are manly semi-structured interviews. In such interviews, the
interviewer learns different facts from the interviewee during the interview.

Participants were measured through the Delphi method ranging from 5 to 20 people. Considering that the Likert scale was used to measure the appropriateness of the introduced indicators, to confirm the indicators, the value (3.00) which suggests the average level of the measurement was used and the average experts' opinions participating in the Delphi method on effective indicators were compared with the theoretical value (3.00) via t-test. If the score of the considered index is more than the theoretical value (3.00), the proposed index will stay constant in the model. The results of this test are provided in Table 1. The results show that five components were confirmed by experts.
Table 1 - Mean of the Strategic Thinking the Components variable from the Perspective of Experts (n = 20)

| Component                  | Mean | T value | P value | Result |
|----------------------------|------|---------|---------|--------|
| Systemic thinking          | 4.30 | 7.93    | 0.001   | Confirmed |
| Focus on the goal          | 4.00 | 5.63    | 0.001   | Confirmed |
| Intelligent opportunism    | 3.70 | 2.90    | 0.005   | Confirmed |
| Time thinking              | 3.80 | 3.39    | 0.002   | Confirmed |
| Central hypothesis         | 3.80 | 2.43    | 0.013   | Confirmed |

Question 2: What is the status of strategic thinking in the Ministry of Science, Research and Technology?

According to the results in Table 2, one can say that in the studied population, the strategic thinking variable is at the desired level (p-value <0.05). In other words, based on the mean obtained for this variable, one can say strategic thinking in the study population has been measured above the average level.

Table 2 - The Status of the Strategic Thinking variable in the Population under Study

| Mean | Sd   | Theoretical mean = 3.00 |
|------|------|-------------------------|
|      |      | value t | pp-value   |
| 4.03 | 0.59 | 31.91    | 0.001      |

Question 2: What is the situation of systemic thinking in the Ministry of Science, Research and Technology?

Question 2-1: What is the situation of focus on the goal in the Ministry of Science, Research and Technology?

Question 2-2: What is the situation of intelligent opportunism in the Ministry of Science, Research and Technology?

Question 2-3: What is the situation of the central hypothesis in the Ministry of Science, Research and Technology?

Question 2-4: What is the situation of time thinking in the Ministry of Science, Research and Technology?

According to the results of Table 3, one can say that in the studied population, the components of systemic thinking, goal focus, intelligent opportunism, central hypothesis and time thinking are at the desired level (p-value <0.05). In other words, according to the mean obtained for this variable, one can say that the status of these components in the study population has been measured above the average level.
Table 3 - Situation of the Variables of Strategic Thinking in the Study Population

| Component             | Mean | SD   | Theoretical mean = 3.00 value t | P-value |
|-----------------------|------|------|---------------------------------|---------|
| Systemic thinking     | 3.98 | 0.68 | 26.67                           | 0.001   |
| Focus on the goal     | 4.09 | 0.65 | 30.91                           | 0.001   |
| Intelligent opportunism | 4.21 | 0.78 | 28.52                           | 0.001   |
| Central hypothesis    | 3.89 | 0.76 | 21.68                           | 0.001   |
| Time thinking         | 3.98 | 0.70 | 25.62                           | 0.001   |

**Question 3: What are the components of strategic human resource management in the Ministry of Science, Research and Technology?**

To examine the above question, a one-sample t-test was applied. As shown in Table 4, according to the obtained mean rates, the strategic human resource management components from the perspective of experts include careful recruitment, effective staff communication, training and development of human resources, service compensation, management development, equal job opportunities, flexible plans, participation and performance appraisal (p-value <0.05).

Table 4 - Mean of Components of Strategic Human Resource Management variable from the Perspective of Experts (n = 20)

| Component                                      | Mean | Value t | P-value | Result     |
|------------------------------------------------|------|---------|---------|------------|
| Careful recruitment                            | 3.70 | 2.15    | 0.022   | Confirmed  |
| Effective employee communication                | 3.65 | 2.80    | 0.006   | Confirmed  |
| Training and development of human resources    | 3.60 | 2.56    | 0.009   | Confirmed  |
| Service compensation                            | 4.05 | 5.29    | 0.001   | Confirmed  |
| Management development                          | 4.10 | 4.82    | 0.001   | Confirmed  |
| Equal job opportunities                         | 4.20 | 6.00    | 0.001   | Confirmed  |
| Flexible work plans                             | 4.20 | 4.86    | 0.001   | Confirmed  |
| participation                                   | 3.95 | 3.71    | 0.001   | Confirmed  |
| Performance evaluation                          | 4.00 | 5.21    | 0.001   | Confirmed  |

**Question 4: What is the situation of strategic human resource management in the Ministry of Science, Research and Technology?**

According to the results of Table 5, one can state that in the studied population, the variable of strategic human resource management is at the desired level (p-value <0.05). In other words, according to the mean obtained for this variable, one can say that the situation of strategic human resource management in the study population has been measured above the average level.
Table 5 - The Situation of Strategic Human Resource Management in the Study Population

| Mean | SD  | Theoretical mean = 3.00 |
|------|-----|-----------------------|
|      |     | value t | P-value |
| 3.44 | 0.79| 10.26    | 0.001   |

Question 4-1: What is the employment situation in the Ministry of Science, Research and Technology?

Question 4-2: What is the situation of effective staff communication in the Ministry of Science, Research and Technology?

Question 4-3: What is the situation of training and development of human resources in the Ministry of Science, Research and Technology?

Question 4-4: What is the situation of service compensation in the Ministry of Science, Research and Technology?

Question 4-5: What is the situation of management development in the Ministry of Science, Research and Technology?

Question 4-6: What is the situation of equal job opportunities in the Ministry of Science, Research and Technology?

Question 4-7: What is the situation of flexible work plans in the Ministry of Science, Research and Technology?

Question 4-8: What is the situation of participation in the Ministry of Science, Research and Technology?

Question 4-9: What is the situation of performance appraisal in the Ministry of Science, Research and Technology?

According to the results in Table 6, one can say that in the studied population, the components of employment, effective employee communication, training and development of human resources, management development, equal job opportunities, flexible work plans, participation and performance appraisal are at the desired level (p-value < 0.05). In other words, according to the mean obtained for this variable, one can say that the situation of these components in the study population has been measured above the average level. Also, the service compensation component was evaluated at an undesirable level (below the average level) (p-value >0.05).
Table 6 - Investigating the Situation of Variable of Strategic Human Resource Management Components in the Study Population

| Component                                        | Mean  | SD   | Theoretical Mean = 3.00 value t | p-value |
|--------------------------------------------------|-------|------|---------------------------------|---------|
| Careful recruitment                              | 3.52  | 0.91 | 10.45                           | 0.001   |
| Effective employee communication                 | 3.53  | 0.98 | 10.08                           | 0.001   |
| Training and development of human resources      | 3.54  | 0.88 | 11.23                           | 0.001   |
| Service compensation                             | 2.93  | 1.10 | -1.21                           | 0.886   |
| Management development                           | 3.31  | 1.08 | 5.34                            | 0.001   |
| Equal job opportunities                          | 3.65  | 1.11 | 10.83                           | 0.001   |
| Flexible work plans                              | 3.54  | 1.04 | 9.60                            | 0.001   |
| Participation                                    | 3.33  | 1.09 | 5.59                            | 0.001   |
| Performance appraisal                            | 3.62  | 0.81 | 13.99                           | 0.001   |

**Question 5:** Is there a relationship between strategic thinking and strategic human resource management in the Ministry of Science, Research and Technology?

The results from structural equation modeling provided in Table 7 illustrate the positive and significant effect of strategic thinking on strategic human resource management (p = 0.001, β = 0.270). Based on the coefficient of determination (R²), 7% of the changes in strategic human resource management are explained by strategic thinking.

Table 7 - Examining the Relationship between Variables in the Research Question Five

| Question                                                | Path coefficient | value t | p-value |
|---------------------------------------------------------|------------------|---------|---------|
| Strategic thinking → Strategic human resource management| 0.270            | 3.829   | 0.001   |

What are the features of the strategic human resource management model in the Ministry of Science, Research and Technology with an emphasis on strategic thinking?

Structural equation test was used to evaluate the features of the strategic human resource management model in the Ministry of Science, Research and Technology. The findings indicated a rising relationship between strategic thinking and its components with strategic human resource management (p-value <0.05).

6. Discussion

Strategic thinking can influence the strategic thinking of managers from the perspective of foresight, including anticipating trends and events around, high dreaming power, describing the portray of the future, relevant activities, commenting on the future of the job, familiarity with the organization's future success strategies and observing unexpected and unpredictable occurrences in
the future through thinking about the future. This is because foresight and contemplating about the future can elucidate the path ahead of the person to some degree and such an event will increase the power of strategic thinking in him/her, as the person makes a decision in line with the future events and adopts strategic thinking. Therefore, strategic thinking is a continuing process that helps people in the organization to learn faster from the organizational environment and use more creativity. Thinking should be made over time and continuously, not intermittently. Managers must plan their thoughts intelligently and provide for the relevant steps so clearly that the people in the organization can be effective. On the other hand, for the organization to improve organizational performance, it is necessary that manages human resources and components strategically, pays attention to them and empower the staffs with human resources and encourage creativity, innovation and entrepreneurship in the organization so that it can catch up with rapid changes and ultimately achieve greater success. Organizations must apply a strategic view of human capital to be able to encourage employees to enjoy their maximum knowledge and competency for entrepreneurial activities. Therefore, managers can meet higher levels of entrepreneurial performance by investing in strategic human resource measures, thus, achieving their goals. The need for a strategic worldview of human resources is an inevitable issue that gains importance over time and along with increasing environmental changes. Strategic human resource management system is the most effective way to stimulate employees to do effective work for the organization.

This study aimed to design a strategic human resource management model in the Ministry of Science with an emphasis on strategic thinking. As seen, the results from Table 5 indicate that there is a positive and significant relationship between strategic thinking and strategic human resource management. Therefore, the main hypothesis was confirmed. The results of this hypothesis are in line with the findings stated by Alumari (2016), Mir Mohammadi Tajrishi (2011), Yaghoubi et al. (2017). According to the results in Table 10, it can be stated that in the population under study, the strategic thinking variable is at the desired level (p <0.05). In other words, according to the mean obtained for this variable, it can be suggested that the situation of strategic thinking in the population under study was measured above the average level. According to the results of Table 13, one can say that in the population under study, the variable of strategic human resource management is at the desired level (p <0.05). In other words, according to the mean obtained for this variable, one can say that the situation of strategic human resource management in the study population was measured above the average level. According to the results of Table 14, it can be stated that in the population under study, the components of accurate employment, effective employee communication, training and development of human resources, management development, equal job opportunities, flexible work
plans, participation and performance appraisal were at the desired level (p <0.05). In other words, according to the mean obtained for this variable, it can be said that the status of these components in the study population was measured above the average level. Also, the service compensation component was evaluated at an unfavorable level (below the average level) (P> 0.05 value).

References

Abraham, Stan. (2005). Stretching Strategic Thinking. *Strategy and Leadership*. 33(5). 5-12.

Absar, M.M.N., Nimalathasan, B., & Jilani, M.M.A.K. (2010). Impact of HR Practices on Organizational Performance in Bangladesh. *International Journal of Business Insights and Transformation*, 2(3), 15-19.

Abtahi, Hossein and Mousavi, Mohammad. (2009). Developing human resource strategies (Case study: one of the final structures, Spiritual country). *Quarterly Journal of Human Resources Management Research, Imam Hossein University*, First Year, No. 3, 1-13.

Alomari, Ziyad S. (2019). Does human capital moderate the relationship between strategic thinking and strategic human resource management? Jadara University, Jordan.

Analysis of environmental factors. *Journal of Improvement and Transformation Management Studies*, Twenty-Third Year No. 75, 69-96.

Armstrong, Michael (2012). *Strategic human resource management (action guide)*. Translated by Mohammad Saei, Tehran: Public Management Training Center, First Edition.

Asadpour, Parvin and Yousefi Saeedabadi, Reza and Fallah, Vahid (2018). Identify and rank the components of strategic thinking in the directors of education of Mazandaran province. *Quarterly Journal of Educational Leadership and Management*, Volume 12, Number 1, 25-39.

Asghari, Jamshid (2007). Human Resource Management, Tehran: Safi Publications, First Edition.

Bagheria Mashhadi, Amir Hossein and Salari, Navid and Yaghoubi, Sara. (2016). Transformational leadership and entrepreneurial orientation: Study the role of strategic thinking interface. *The First International Conference on Business and Organizational Intelligence - New Paradigms Management*, 1-19.

Bahrami, Susan and Yar Mohammadian, Mohammad Hossein and Rajaipour, Saeed and Bakhtiar Nasrabad, Hassan Ali (2012). Relation Simple and Multiple Functions of Strategic Managers of Human Resources and Administrative Innovation in University of Medical Sciences and OtherMedical Sciences of Isfahan Province. *Health Information Management*, Nine (6), 870-877.

Bashir Banaim, Yaser (2011). Strategic thinking; The context of strategic human resource development in the century. *NAJA Human Resources Quarterly, Scientific-Extension Journal*, Year 6(26), 39-64.

Bayazi Tehranband, Ali and Kurd Nadich, Asadoleh and Khodad Hosseini, Hamid and Danaei Forou, Hassan. (2019). Identifying and explaining the elements of strategic thinking.

Bloklashkari, Mojtaba. (2013). *Commands and techniques of strategic thinking*. Nas Scientific and Cultural Institute, First Edition, Tehran.
Bonn I. (2001). Developing strategic thinking as a core competency. Management Decision, 39(1). 63-71.

Byeong-Joon, Moon (2013), “Antecedents and Outcomes of Strategic Thinking”, Journal of Business Research, Vol 66, Issue.

Chang, Wang Jing April & Huang, Tung Chun (2005)."Relationship between MJ strategic human resource management and firm performance a contingency perspective". International Journal of Man power Vol. 26. Jno. 5, pp. 444- 459.

Chen, C.J. & Huang, J.W. (2009). Strategic human resource practices and innovation performance - The mediating role of knowledge management capacity. Journal of Business Research, 62(1), 104-114.

Damanpour, F., & Marguerite S. (2008). Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. Journal of public administration research & theory, 19, 495-522.

Dionisio, M. A. (2017). Strategic Thinking: The Role in Successful Management. Journal of Management Research, Vol. 9, No. 4, 43-56.

Fallahi Maman, Mahmoud (2016). Investigating the Impact of Strategic Human Resources Actions on Innovative Performance. Management studies and Entrepreneurship, 2(3), 212-242.

Ghorbani, Mahmoud and Ghasemzadeh, Mohammad Reza (2015). Investigating the relationship between managers' strategic thinking and the level of readiness for organizational change in airports in Khorasan Razavi province, Quarterly Journal of Management Research, 27(106), 17-29.

Haghighat Monfared, Jalal Vashbani, Sadegh. (2015). Strategic thinking of the managers of the Deputy of Financial Supervision and General Treasury Country. Scientific Quarterly of Management Engineering, Third Year, No. 3, 25-35.

Heidari, Mohammad Amin and Shahamat, Nader. (2017). The role of human resource management in educational systems. The second international conference and Fourth National Conference on Management and Humanities, 11-1.

Hiltrop, J.M. (1999). The quest for the best: human resource practice to attract and retain talent. European management journal 17(4), 422-430.

Howard, Esme F. (1989). Strategic Thinking in Insurance, Long Range Planning, 22(3), 76-79.

Janloo, Reza. (1396). Formulation of human resources strategy using the theory of strategic reference points) Case study: Bandaramir-Abad (Maritime Transport Quarterly, Third Year, No. 6, 36-44

Khaksar, Mansour and Khaghani, Masoumeh and Zarei, Amjad (2013). Investigating the relationship between strategic thinking and organizational innovation; Quarterly Journal of Industrial Management, Year 8, No. 26, 49-62.

Maamai, Hajar and Amini, Mohammad Taghi and Dargahi, Hossein and Mashayekh, Mohammad Reza and Janbarzagi, Mohammad (2013). Azmoon Strategic thinking among the staff managers of Tehran University of Medical Sciences and Health Services. Health Management, 16(53), 73-84.

Marshad, Mohammad N. (2019). Strategic Thinking in Jordan: Still Crafting the Architecture. European Journal of Business and Management. 11(26), 84-96.

Meshbaki Esfahani, Asghar, Khazaei, Anahita (2008). Designing the elements of strategic thinking in Iranian organizations. Quarterly; Business Management, First Year, No. 118.1-105.
Mirsapasi, Nasser (1999). Strategic human resource management and labor relations. Tehran: Management Education Publishing Center, Government, 18th edition.

Moradi, Mohsen and Heshmati, Mohammad Rasool (2014). Develop human resource strategies using analysis techniques.

Nasiri, Hamid Reza. (2015). Strategic Human Resource Management. International Management Conference, 1-8.

Nazemi, Shamsuddin and Mortazavi, Saeed Vajafariani, Hassan (2010). Relationship between strategic thinking and performance. Perspective; Business Management, No. 2, 87-69.

Poursadegh, Naser Vizdani, Behrang. (2011). The effect of senior managers' strategic thinking ability on the success of small companies and through strategic management studies. No. 7, 143-159.

Ranjbar, Mokhtar and Purkiani, Massoud (2014). Provide an appropriate model of strategic human resource management with a capability approach Creating organizational knowledge in government organizations of the Islamic Republic of Iran. Journal of Development and Transformation 16, 59-51.

Rostamzadeh, Reza and Budaghi Khajeh Nobar, Hossein and Soltani, Zeinab. (2016). Investigating the impact of strategic resource management; Human Resources on Attracting, Retaining and Empowering Manpower (Case Study: Urmia Agricultural Bank); Management Futurology, Volume 27, Number 107, 13-31.

Salamzadeh, Y., Bidaki, Z. & Vahidi- Taghi, V. (2018). Strategic Thinking and Organizational Success: Perceptions from Management Graduates and Students.

Samei, Hussein. (2010). Human resource management function strategies. Journal of Tadbir, No. 204, 27-32.

Sanchez Antonio Aragon. Gregorio Sanchez Marin and Arleen Mueses. Morales (2015). The Mediating effect of strategic human resource practice on knowledge management.

Sharifi, Mehdi Vataban, Mohammad Vashrafi, Vahid. (2014). Investigating the relationship between strategic thinking and employee performance; Study: Library staff of Ilam State University, 48(3), 371-389.

Soltani, Tahmineh (2018). Investigating the components of strategic thinking in the managers of Khuzestan Gas Company by model. Bimonthly of Applied Studies in Management and Development Sciences, Third Year, No. 2, 77-96

Stacy, Ralph (2010). Strategic thinking and change management. Translated by Mostafa Jafari and Mehriyar Kazemi Movahed, Tehran: Rasa Publications, third edition.

Yaghoubi, Maryam and Teymourzadeh, Ehsan and Salesi, Mahmoud and Tavakoli, Mohammad Reza (2017). Investigating the relationship between thinking Strategic with innovation and productivity of managers of different levels in a military hospital. Journal of Military Medicine, 19(6), 588-594.

Zabihi, Mohammad Reza and Yaghoubi aval, Mahmoud. (2014). Explanatory study of strategic thinking with emphasis on its role and relationship; with strategic planning. International Management Conference, Tehran.

Zabihnia emran, F. & Emamgholizadeh, S. (2015). Strategic Thinking and Its Approaches. Journal of Applied Environmental and Biological Sciences, 5(1S). 145-150.