

RESEARCH ARTICLE

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Designing a Systemic Development Model Based on Knowledge Management (Case Study: Islamic Azad University)

Sahebeh Kermani ¹, Farshideh Zamani ^{2*}, Taraneh Enayati ³

Abstract

The issue of proper career path development is important for employees in many organizations such as the education department according to the knowledge management model, so this study aims to design a career development model for female teachers based on the knowledge management model in the General Directorate of Education. Mazandaran province was done. The statistical population studied in this study consisted of all employees of the General Department of Education in Mazandaran province. Statistical sample size 269 people were selected through random sampling method through Krejcie Morgan table. In this study, Shine's career development and knowledge management questionnaire were used. The reliability of these two questionnaires using Cronbach's alpha was 0.75 and 0.78, respectively. For statistical analysis, SPSS software version 20 and pls3 were used and the alpha level was considered 0.05. The results showed that the value of t in all paths between the research factors was equal to and greater than 2.58. As a result, there is a significant relationship between the main factors and their sub-factors in the conceptual-analytical model of the research and also the results showed that the fit of the general research model is appropriate and strong. In general, it can be said that between the first step of the career path with the second step of the career path, between the second step of the career path with the third step of the career path, and between the third step of the career path with the fourth step of the career path of teachers Employees of the General Department of Education of Mazandaran Province, in the conceptual-analytical model of career development path, there is a direct and significant relationship.

Keywords: *Career Advancement, Knowledge Management, Knowledge Sharing, Islamic Azad University*

Introduction

Extensive and continuous developments in the present age have also led to hierarchical governmental organizations, which are considered powerful in terms of their physical capabilities and extensive infrastructure. Today, the long-term success of the organization depends on the acquisition, storage and sharing of knowledge (Abbas, 2020: 5). Strategies that are designed based on the accumulation of knowledge of human

resources are the key to competitive advantage. Therefore, successful knowledge management is the main characteristic of the survival of an organization (Morshedi Tonekaboni, 2020: 28). On the other hand, in the definition of knowledge management, we have: "Management of production, dissemination and use of information (external knowledge) and capital derived from the thought of individuals (internal knowledge) in order to achieve

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organizational goals is called knowledge management" (Agh Ghaleh and Soleimanpour Omran, 2020: 206). Therefore, knowledge management is encouraging employees to share knowledge (knowledge sharing) and ideas to increase the added value of products that help organizations to have an effective knowledge process (Esmaili Niasan et al., 2020: 99). In the knowledge management system, knowledge is basically of two types: external knowledge or explicit knowledge and internal knowledge of tacit memory. External knowledge is: knowledge recorded, recorded and coded in various media such as books, documents, manuscripts, web pages, audio-visual resources, electronic information resources, promotional resources, etc., to this type of knowledge, so-called Longitudinal knowledge is also called. Internal knowledge is also: knowledge resulting from human thought, experience and thought, this type of knowledge is also called transverse knowledge (Amir Hosseini, 2020: 168). The importance and necessity of knowledge management model in organizations becomes more tangible when today all organizations, directly or indirectly, have to reconsider the structure of their decisions in order to adapt to their changing and competitive environment (Sharafizadeh et al., 2021: 153). Demonstrate (Ishida et al., 2018: 184) that the more this level of agility, flexibility, and optimal performance speed relies on knowledge, the more effective the result will be with more stable overall and partial productivity (Paoloni et al., 2020: 1801). The capital of the organization is not only financial and physical capital but also the knowledge capital of individuals is more important than that. In this age, knowledge as an important competitive advantage can play a key role in the success and decline of businesses (Jaafari et al., 2021: 268).

According to Peter Drucker, he considers his knowledge and information to be the most important source of wealth in the extra-capital society. The transfer and creation of knowledge requires that individuals and groups have a desire to cooperate with each

other and exchange their knowledge with each other in line with their mutual interests (Rezaei et al., 2020: 138). Therefore, knowledge management can be considered as the beating pulse of any organization that seeks to discover and implement new and innovative patterns of performance (Mousavi Shams Abad et al., 2020: 5). On the other hand, the authors identify six different capabilities of knowledge management according to the exploration, maintenance and exploitation of knowledge inside and outside the organizational boundaries and according to previous relevant studies:

- (A) Inventive capacity, the ability to participate in discovery Understands internalization or production of new knowledge;
- (B) Absorption capacity refers to the company's ability to discover and use foreign knowledge;
- (C) Transformation capacity is the organizational capacity of knowledge within the organization;
- (D) Communication capacity indicates the ability of the company to store knowledge in inter-organizational relationships;
- (E) Innovation capacity is the final stage in the development of new products and services;
- (F) The permeability capacity of external knowledge transfer (Abdoli Masinan et al., 2020: 118).

Another important point is to explain the position of the career path. Basically, the career path is the successive and evolving stages of people's work experiences over time, which usually occurs in the form of a social set or specific outcomes (Seidzadeh et al., 2020: 80). Traditional thinking believes that the career path must necessarily be vertical (longitudinal) growth or the same progress to higher levels, but modern thinking believes that the transverse and horizontal movement in a job position or in different industries is also within the framework of the career path (Shujahat et al., 2019: 451). Each person's career path may be different, because it is not clear how far each person is from their goals and how long it

must take to reach their goals (Bao et al., 2018: 81). The concept of career path makes organizations and people who work for it as an interconnected and interdependent chain. This concept is examined from both internal and external aspects: The external career path includes jobs and situations through which the individual develops and is defined as organizational indicators of the career path while the path internal job is the tendency of employees to orient or anchor (Popovic, 2019: 214). Regarding the other important and effective necessity of knowledge management in organizations, it should be noted that technology and its developments have become one of the most important elements of the strategic environment of the organization. That is why technological developments have significant effects and consequences on economic, social and even political systems. It is important to create and develop scientific knowledge in the field of technology management and technological management and its purpose is to manage the use and institutionalization of technology as a strategic resource in the organization and the creation of strategic values by it (Rahmati et al., 2020: 45).

This seems to be vital in the General Directorate of Education of Mazandaran Province, which is related to the important issue of education and knowledge of individuals. Currently, one of the problems facing the General Department of Education of Mazandaran Province is the lack of a suitable career path for teachers, especially female teachers, according to the knowledge management model. This shortcoming has led to the lack of a coherent performance

appraisal system. In fact, the lack of strategic methods has caused ambiguity in the performance of female teachers and the results of this ambiguity have led to ambiguity in quality, lack of scientific competition and lack of scientific ranking based on performance indicators. On the other hand, the allocation of rewards and salaries to each individual should be based on objective performance appraisal, and if it is based on subjective appraisals, performance will face difficulties. These problems are due to not establishing a suitable career path for them. Therefore, with these brief introductions, the present article is a research in order to answer the main question: "What are the components of the career development model of female teachers based on the knowledge management model?"

And the following four other sub-questions are considered by the authors, which are:

Question 1: What are the dimensions of the career path development model based on the knowledge management model in the General Department of Education of Mazandaran Province?

Question 2: What is the weight and degree of importance of the indicators (criteria) of the career development model of female teachers based on the knowledge management model?

Question 3: What are the important interactions between the indicators (criteria) of the career development model of female teachers?

Question 4: Is the final model of career advancement of female teachers based on the knowledge management model applicable in the study area?

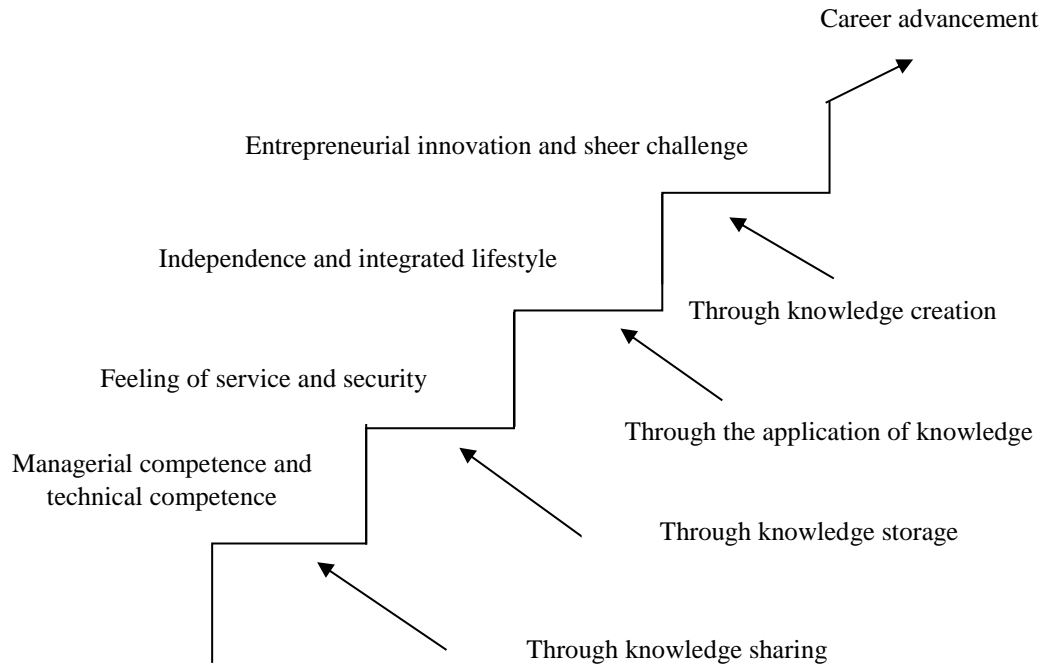


Figure 1. *Conceptual model of research*

Literature Review

The results of Sharafizadeh et al. (2021) showed that the fit of the general research model is appropriate and strong. In general, it can be said that between the first step of the career path with the second step of the career path, between the second step of the career path with the third step of the career path and between the third step of the career path with the fourth step of the career path of employees There is a direct and significant relationship between start-up business employees in the conceptual-analytical model of career path.

The results of Dermina et al. (2021) dedicated that two issues have been examined; first, using the method of performance importance analysis, the position of organizations in the two areas of knowledge-oriented and capital-based were examined. Two banks are in the position of innovative organization and two other banks are in the area of illusion, and one bank is on the border of excellence and illusion. Finally, with the structural modeling method based on the partial least squares approach, the interrelationship between knowledge-based leadership with innovation, excellence,

illusion control and organizational decline of the defined hypotheses have been tested that these variables reinforce each other. And the effect of independent variables on dependent variables is strong.

Ali Farrahi et al. In a study (2015) believe that the career development path model consists of seven main components. Components include periodic job changes, education, job interests, support, job analysis, and evaluation and guidance. According to the results of Sanjarani (2020), YuWong (2013), AnaMaria et al. (2020), Weng & Zhu (2020) Technical-functional orientation, public management, autonomy-independence, security and stability, entrepreneurial creativity and the sheer challenge of the predictive relationship have significant contributors with organizational trust.

The results of Hosseini et al. (2019) also emphasized the existence of a positive and significant relationship between the components of employees' career advancement paths. The results of Vande Griek et al (2019) considering the information age and communication exchange, it is necessary for the managers of

the General Department of Education of Mazandaran Province who deal with staff (manpower) to choose the appropriate career path for teachers, especially female teachers, because of knowledge management. Managers today are successful in finding important information, announcing the path of career advancement for selection, organizing to their workforce. Knowledge management is a specialty that is essential for activities such as dynamic learning problem solving, strategic planning and decision making.

According the results of the Najam et al (2020) study, positively assessed the effect of job anchors on the satisfaction and organizational commitment of the employees of the East Asian Economic Company. AnaMaria et al. (2020) also stated that the orientation of job anchors in the organization preserves capable and skilled employees. Shahraki Nader et al. (2016) stated in their results that there is a positive and significant relationship between technical-functional competence and general management competence and all components of organizational commitment. The components of technical-functional competence, general management competence, autonomy-independence, pure challenge and lifestyle are also significant predictors of organizational commitment dimensions. Yavari Gohar et al. (2020) pointed to a positive and significant relationship between all functions of career path management with job satisfaction. According to Rahimian et al. (2016), there is a significant relationship between women's readiness for promotion to senior management, law enforcement, organizational support, Iranian Islamic lifestyle, and their career advancement in government organizations. According to the findings of Delavar et al. (2017), the job anchor strategies of employees in the General Department of Education of Tehran include: personal development strategies (psychological empowerment, talent management and succession) and organizational development strategies (improvement of promotion and appointment

system). And improving the performance appraisal system). According to the findings of Norrouzi and Taheri Goodarzi (2019), career path adaptability, person-job fit and person-organization fit have a positive and significant effect on stagnation in the career path. Also, career path adaptation through the mediating role of person-job fit and person-organization fit has a negative and significant effect on stagnation in the career path.

Research Methodology

According to the data collection method, this research is one of the descriptive researches in which the path analysis method has been used to test the relationship between the variables and the significance of the estimated models. In this research, in terms of purpose, it is applied and in terms of collecting descriptive-survey information, for which a questionnaire, description and analysis of research variables have been used. The statistical population studied in this study also consists of female teachers of the General Department of Education of Mazandaran Province, whose number is 900 people according to the inquiry from the employment of the General Department of Education of Mazandaran Province who are working in 1400. Statistical sample through Krejcie Morgan table 280 people were selected by random sampling method. In the survey stage, data collection was through a questionnaire. The research questionnaire includes the standard questionnaire of Shine career development path, Hemmati standard knowledge management questionnaire. The questions were designed into two categories: general questions and multiple choice questions. In general, the questionnaire includes 4 general and demographic questions, 40 questions for the career path questionnaire, and 25 questions for the knowledge management questionnaire. Career Path Questionnaire was developed by Shine in 2006. Knowledge Management Questionnaire was designed by Hemmati in 2010. This questionnaire consists of 25 questions that have four dimensions of knowledge creation, knowledge sharing,

knowledge application and knowledge storage. In the present study, due to the standardization of the questionnaire, the validity of the questionnaire was done in order to be more confident and according to the nature and objectives of the content validity research, with the opinion of professors, specialists and experts. Appearance. Because the questionnaires used in the present study are standard and have been used frequently by researchers, they have high reliability. Also in the present study, to measure the reliability of questionnaires in a statistical population performed on a group of 40 people and its reliability using Cronbach's alpha calculation, Cronbach's alpha value for each of the components of the present study

questionnaire indicates the level of reliability is high. In this research, statistical methods have been used in two sections of descriptive and inferential statistics. SPSS software version 20 and pls3 were used for data processing and statistical analysis.

Research Findings

According to the data obtained in Figure 1, all factor loads of the measurements in their respective dimension (range) that are higher than 0.5 remain in the model and the measurements that had factor loads less than 0.5 (marked in yellow include items Questionnaire A row: 7 and 20 will be removed from the research model, so the research was analyzed based on approved questions.

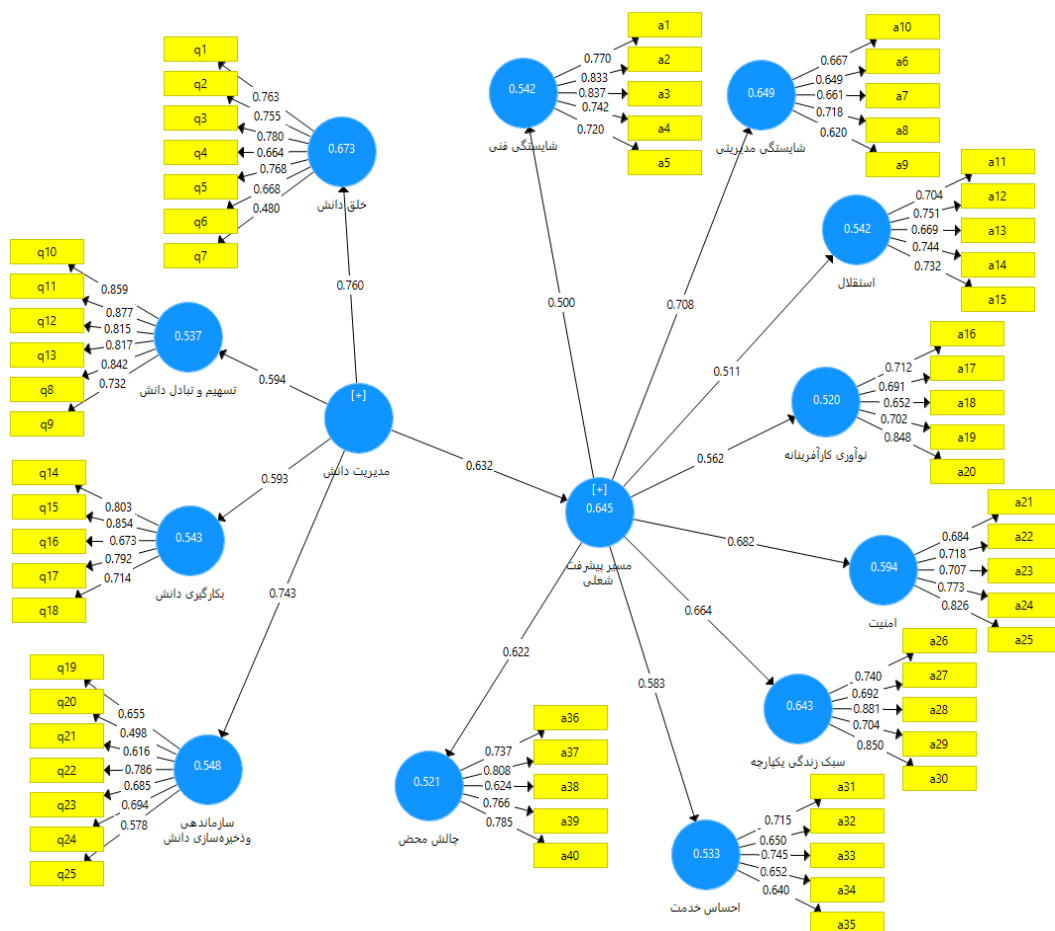


Figure 2. Factor load, path coefficients and coefficient of explanation of research variables in two questionnaires

Fitting of measurement models:

In general, the analysis or use of PLS software consists of two parts: measurement

model and structural model (Palizdar et al., 2020). Three measures are used to measure the fit of measurement models:

Table 1.

Questionnaire reliability coefficients after removing low-validity items

Questionnaire (main factor)	Item Number	Cronbach's alpha	Combined reliability	Questionnaire areas (sub-factors)	Item Number (questions)	Cronbach's alpha	Composite reliability
A) Hemmati Knowledge Management (2010)	25	0.820	0.802	Knowledge creation	7	0.750	0.784
				Sharing knowledge	6	0.834	0.942
				Applying knowledge	5	0.726	0.821
				Knowledge storage	7	0.885	0.910
B) Shine's career path (2006)	40	0.870	0.745	Technical competence	5	0.828	0.822
				Managerial competence	5	0.887	0.894
				Independence	5	0.840	0.874
				Entrepreneurial innovation	5	0.766	0.845
				Security	5	0.857	0.812
				Integrated lifestyle	5	0.825	0.805
				Feeling of service	5	0.750	0.810
				Sheer challenge	5	0.862	0.844

Considering the Cronbach's alpha values and the combined reliability reported in Table 1, as can be seen, all latent variables have a Cronbach's alpha value above 0.7, indicating that other domains of the model have good reliability. Convergent validity is another criterion used to fit the measurement model

in the PLS structural equation modeling method. The extracted mean variance (AVE) index was used to evaluate the convergent validity. The mean variance extracted indicates the degree of correlation of a structure or its characteristics. The value of convergent validity above 0.5 is acceptable.

Table 2.

Convergent validity of research variables

Questionnaire (main factor)	Convergent validity	Questionnaire areas (sub-factors)	Convergent validity
A) Hemmati Knowledge Management (2010)	0.750	Knowledge creation	0.614
		Sharing knowledge	0.887
		Applying knowledge	0.674
		Knowledge storage	0.828
B) Shine's career path (2006)	0.703	Technical competence	0.675
		Managerial competence	0.799
		Independence	0.763
		Entrepreneurial innovation	0.714
		Security	0.659
		Integrated lifestyle	0.648
		Feeling of service	0.656
		Sheer challenge	0.712

After measuring the validity and reliability of the measurement model, the structural model is examined through the relationships between variables. The first and most basic

criterion for fitting a structural model is significance coefficients. Examining this criterion in each of the studied models, Figure 2 shows that all significant coefficients are

greater than 1.96, which shows the significance of all relationships between structures at the 95% confidence level.

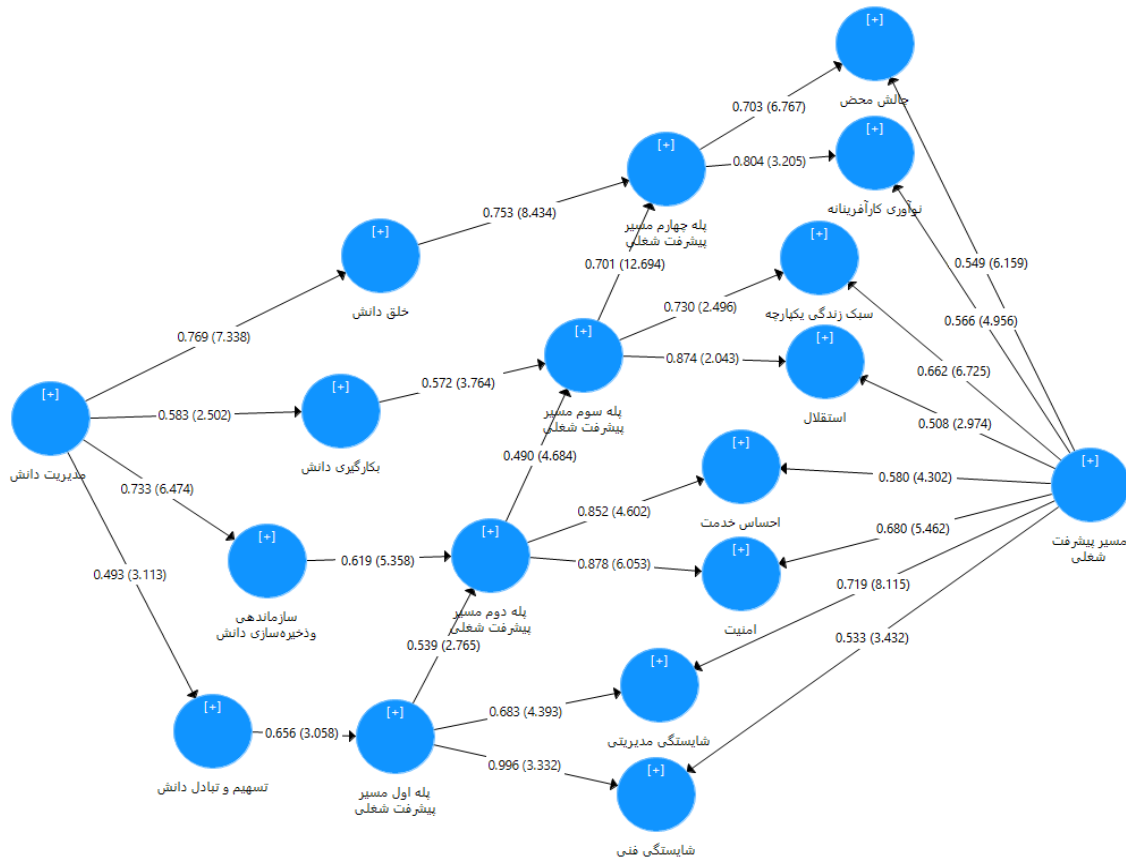


Figure 3. Path and value coefficients based on the conceptual-analytical model of the research

Table 3.

T-values the relationships of each of the main factors with each other and with the sub-factors

Row	Relationship between structures	T-values	P-values
1	Knowledge Management >>> Knowledge Creation	7.338	0.0001
2	Knowledge Management >>> Knowledge sharing	3.113	0.0001
3	Knowledge management >>> Applying knowledge	2.502	0.0001
4	Knowledge Management >>> Knowledge storage	6.474	0.0001
5	Career path >>> Technical competence	3.432	0.0001
6	Career path >>> Managerial competence	8.115	0.0001
7	Career path >>> Independence	2.974	0.0001
8	Career path >>> Entrepreneurial innovation	4.956	0.0004
9	Career path >>> Security	5.462	0.0001
10	Career path >>> Integrated lifestyle	6.725	0.0001
11	Career path >>> Feeling of service	4.302	0.0001
12	Career path >>> Pure challenge	6.159	0.0005
13	Knowledge sharing >>> The first step in career advancement	3.058	0.0008
14	The first step in the path of career advancement >>> Technical competence	3.332	0.0001
15	The first step of the career path >>> Managerial competence	4.393	0.0001
16	Knowledge storage >>> The second step of the career path	5.358	0.0001
17	Second step career path >>> Security	6.053	0.0001
18	Second step career path >>> Feeling of service	46.02	0.0001
19	Applying knowledge >>> The third step of career advancement	3.764	0.0001
20	Third step career path >>> Independence	2.043	0.0001
21	Third step career path >>> Integrated lifestyle		0.0001

Row	Relationship between structures	T-values	P-values
22	Knowledge Creation >>> The fourth step in career advancement	8.434	0.0001
23	Fourth step career path >>> Entrepreneurial innovation	3.205	0.0001
24	Fourth step career path >>> Pure challenge	6.767	0.0001
25	The first step of the career path >>> The second step of the career path	2.765	0.0001
26	The second step of the career path >>> The third step of the career path	4.684	0.0001
27	The third step of the career path >>> The fourth step of the career path	12.694	0.0001

The coefficient of determination or 2R (R Squares) is a criterion that is calculated only for the endogenous structures of the (dependent) model and indicates the effect that an exogenous variable has on an endogenous variable. In the case of exogenous structures, the value of this

criterion is zero. The higher the value of 2 R for the endogenous structures of a model, the better the fit of the model. China (1998). Introduces three values of 0.19, 0.33 and 0.67 or more as the criterion values for weak, medium and strong values of 2 R.

Table 4.

2R values of endogenous variables of the research model

Row	Structures	Determination coefficient (explanation) 2R	Modified explanation coefficient	Quality
1	knowledge management	-	-	-
2	knowledge creation	0.587	0.534	Above average
3	Sharing knowledge	0.534	0.537	Above average
4	Applying knowledge	0.640	0.636	Above average
5	Knowledge storage	0.538	0.533	Above average
6	Applying knowledge	-	-	-
7	Knowledge storage	0.633	0.625	Above average
8	Career path	0.755	0.750	Strong
9	Technical competence	0.811	0.807	Strong
10	Managerial competence	0.646	0.639	Above average
11	Security	0.601	0.593	Above average
12	Feeling of service	0.700	0.694	Strong
13	Independence	0.768	0.764	Strong
14	Integrated lifestyle	0.525	0.515	Medium
15	The first step in the path of career advancement	0.616	0.612	Above average
16	The second step of the career path	0.722	0.720	Strong
17	Third step career path	0.808	0.803	Strong
18	The fourth step of the career path	0.615	0.610	Above average

As can be seen in the table, the main endogenous variables of the model are in the range (0.525-0.803) and have a coefficient of determination above average and strong, and in general have a coefficient of determination above average.

Impact measurement criterion or F2:

This criterion, introduced by Cohen (1988), determines the intensity of the relationship between models constructs. Impact size measure from 2F index helps to analyze structures. Cohen added that values of 0.02, 0.15, and 0.35 or higher indicate the magnitude of the small, medium, and large effects of one structure on another, respectively.

Table 5.
The size of the effect of research structures

Impact path of structures		Amount F2 (effect size)	Effect size
Knowledge management	Knowledge creation	1.440	Big
	Sharing knowledge	0.352	Big
	Applying knowledge	0.535	Big
	Knowledge storage	1.232	Big
Career development path	Technical competence	0.398	Big
	Managerial competence	0.433	Big
	Independence	0.374	Big
	Entrepreneurial innovation	0.470	Big
	Security	0.433	Big
	Integrated lifestyle	0.790	Big
	Feeling of service	0.516	Big
	Sheer challenge	0.342	Above average
	Knowledge sharing >>> The first step in career advancement	0.656	Big
	The first step in the path of career advancement >>> Technical competence	1.354	Big
The first step of the career path >>> Managerial competence	0.953	Big	
Knowledge storage >>> The second step of the career path		Big	
Second step career path >>> Security	0.570	Big	
Second step career path >>> Feeling of service	1.093	Big	
Applying knowledge >>> The third step of career advancement	0.572	Big	
Third step career path >>> Independence	1.129	Big	
Third step career path >>> Integrated lifestyle	1.046	Big	
Knowledge Creation >>> The fourth step in career advancement	0.994	Big	
Fourth step career path >>> Entrepreneurial innovation	2.693	Big	
Fourth step career path >>> Pure challenge	1.005	Big	
The first step of the career path >>> The second step of the career path	0.539	Big	
The second step of the career path >>> The third step of the career path	0.490	Big	
The third step of the career path >>> The fourth step of the career path	0.701	Big	

As can be seen, according to Table 5, the variables of knowledge management and the structure of the career path of female teachers in the General Department of Education of Mazandaran Province have a great effect on their structure and the relationship between other variables was also considered large.

Predictive power factor or Q2:

Before testing the hypotheses, it is best to evaluate the quality of the internal or structural model. Henseler et al. set the values of predictive power of the model for endogenous components in three values: 0.02, 0.15 and 0.35.

Table 6.
Q2 index coefficient of predictive power of research model

Structures	MAE	RMSE	(Q2-predict)
Knowledge creation	0.330	0.415	0.452
Sharing knowledge	0.312	0.414	0.346

Structures		MAE	RMSE	(Q2-predict)
Knowledge management	Applying knowledge	0.338	0.413	0.511
	Knowledge storage	0.351	0.448	0.275
Career development path	Technical competence	0.317	0.418	1.429
	Managerial competence	0.125	0.159	0.436
	Independence	0.245	0.184	1.767
	Entrepreneurial innovation	0.024	0.036	0.734
	Security	0.045	0.077	0.540
	Integrated lifestyle	0.032	0.049	0.544
	Feeling of service	0.095	0.141	2.004
	Sheer challenge	0.017	0.027	0.916
The first step in the career path		0.027	0.036	0.828
The second step of the career path		0.032	0.045	1.273
Third step career path		0.104	0.136	0.890
The fourth step of the career path		0.283	0.368	0.695

The RMSE criterion (root mean error of approximation squares) is an excellent fit if it is less than or equal to 0.06. As can be seen, according to Table 6, the values of knowledge management variables as independent variables are $Q < 0.195$. Therefore, it can be concluded that the model has good predictive power.

Overall model fit (GOF criterion)

Index (GOF) is a criterion for examining the overall fit of the model to predict endogenous variables. Tenenhaus et al. (2004) proposed this criterion as a reliable indicator for the overall fit of the model. This index is the square of two common values of 1 and the coefficient of 2.

$$GOF = \sqrt{\text{communality} \times \bar{R}^2}$$

Formula -2 -2 Formula for calculating the overall fit of the model in the method (PLS)

0.01, 0.25 and 0.36 have been introduced as weak, medium and strong values for GOF, respectively (Davari and Rezazadeh, 2014). As can be seen, the calculated value for GOF in this study is equal to 0.243 and about 0.25, and therefore it can be said that the overall model fit of the research is appropriate and robust.

Average (Comunalities) = 0.726
Average (R2) = 0.645

Table 7.

Communality

Structures	Communality
Knowledge management	0.750
Career path	0.703
Common average amount	0.726

Strong overall fit GOF = 0.684

Discussion and Conclusion

This article, while emphasizing the career path development model based on the knowledge management model among female teachers in the General Department of Education of Mazandaran Province, Mazandaran, has sought to answer the following questions:

Question 1: What are the dimensions of the career path development model based on the knowledge management model among female teachers in the General Department of Education of Mazandaran Province? As the results showed, the value of t for the relationship between each of the main factors and sub-factors in the conceptual-analytical model of the research was higher than 1.98. Therefore, with 95% of the relationships between each of the main factors and sub-factors in the model was confirmed. The correlation value of these paths is also direct (positive). That is, by increasing the steps of the career path, technical competence will lead to entrepreneurial innovation, and the steps of the career path are significantly

related from the first step to the fourth step, respectively. The research results in this question are in line with the research results of Agh Ghaleh and Soleimanpour (2020),

YuWong (2013), Amir Hosseini (2020), Rezaei et al. (2020) which showed the technical-functional orientation, general management, autonomy- Independence, security and stability, entrepreneurial creativity and sheer challenge have a significant predictive relationship with organizational trust. The results of Abdoli Masinan et al. (2015) also emphasized the existence of a positive and significant relationship between the components of employees' career advancement paths had a significant effect. According to the researcher, considering the information age and communication exchange, it is necessary for the managers of the General Department of Education of Mazandaran Province who deal with female teachers (manpower) to choose the appropriate career path for employees by using knowledge management, because today successful managers Are to find important information, to announce the path of career advancement for selection, organization to their manpower. Knowledge management is a specialty that is essential for activities such as dynamic learning problem solving, strategic planning and decision making. In the conceptual-analytical model of the present study, the dimensions of the career path development model (including: entrepreneurial innovation, integrated lifestyle, technical competence, sense of service, independence, managerial competence, security and sheer challenge) based on knowledge management model (including dimensions: knowledge creation, Knowledge storage, knowledge application and knowledge sharing) were presented in four stages in Mazandaran Social Security Organization.

Question 2: What is the weight and degree of importance of the indicators (criteria) of the career development model based on the knowledge management model? As the results showed, the factor load of the items and components of the research was reported.

That is, according to the results, all factor loads of the measures in their respective dimension (range) that were higher than 0.5 remained in the model and the measures that had factor loads less than 0.5 (marked in yellow, including the items of the first row questionnaire). 7 and 20 were removed from the research model. To prioritize the dimensions of the questionnaires (importance of indicators (criteria) of the model) the confirmatory factor analysis test was used which showed that the prioritization of the questionnaire in the questionnaire a) Knowledge management respectively:

1- Creation Knowledge,
2- Knowledge storage,
3- Knowledge application and
4- Knowledge sharing and prioritization are in the questionnaire b) Career path, respectively:

1- Entrepreneurial innovation,
2- Integrated lifestyle,
3- Technical competence,
4 - Sense of service,
5- Independence,
6- Managerial competence,
7- Security, 8- Pure challenge.

The results of the research in this question were in line with the results of YuWong (2013) that the importance of career aspirations or anchors based on the average, respectively, lifestyle, entrepreneurial creativity, independence, service, sheer challenge, functional technical competence, security and stability and managerial competence they got it. Ishida et al. (2018) and AnaMaria et al. (2020) who showed the effect of job anchors on nurses' organizational satisfaction and commitment. Kanabiran et al. (2016) also stated that the orientation of job anchors in the organization preserves capable and skilled employees. Vande Griek et al. (2020) stated in their study that there is a positive and significant relationship between technical-functional competence and general management competence and all components of organizational commitment. The components of technical-functional competence, general management competence, autonomy-

independence, pure challenge and lifestyle are also significant predictors of organizational commitment dimensions. Alirezaeian et al. (2013) pointed to a positive and significant relationship between all functions of career path management with job satisfaction. According to the research results, the dimensions of knowledge management of female teachers can lead to their career advancement during the four steps of the conceptual-analytical model of research in the Department of Education and create creative thinking and entrepreneurial innovation of employees and solve challenges and achieve organizational goals efficiently and becomes effective.

Question 3: What are the important interactions between the indicators (criteria) of the career development model? As the results showed, the coefficients of explanation coefficients were moderate and above average and the values of the coefficient of significance of t-paths between the main components and the variables of the reported research were higher than 1.98. That is, with 95% of the relationships of each of the main factors with the sub-factors in the model was confirmed. The correlation value of model paths (path coefficients) was also direct and positive in the range (0.490-0.996). The results of research in this question were in line with the results of Delavar (2019) and Rahimian (2020) with the difference that instead of knowledge management they used the organizational trust variable of employees and showed that technical-functional orientation, general management, autonomy-independence Security and stability, entrepreneurial creativity and sheer challenge have a significant predictive relationship with organizational trust. According to the researcher's initiative in the present analytical conceptual model, the dimensions of knowledge management in the four steps of career path are directly and significantly related to the eight dimensions of Shine (2006) career path.

Therefore, employees of the organization who have different abilities and dimensions

of knowledge management, can go through four stages of career advancement. Also, the innovation of research results in inventing four steps of career development path is due to the relationship between the dimensions of knowledge management of female teachers and the dimensions of Shine (2006) career development path, because according to the researcher, Be an organization and be able to create new and innovative ideas for an organization will create new and competitive resources of this organization with other organizations. They will make a significant contribution to the development of innovation in the services of the organization and the solution of its challenges. Because the organization's staff managers do not have the ability to create strong knowledge management among their employees. But employees try to increase the dimensions of knowledge management in their field of work for their career advancement, and staff managers, according to this analytical conceptual research model, will have a program and framework for using creative ideas of organizational employees and guiding employees' career advancement. . Therefore, the General Directorate of Education of Mazandaran Province has a conceptual and analytical program and model to use the intellectual potential of human resources within the organization and the path of career advancement of teachers, especially female teachers, and increase their satisfaction.

Question 4: Is the final model of career path development based on the knowledge management model applicable in the study area? As the results showed, the fit of the overall model of the research was appropriate and robust (GOF = 0.684). The correlation value of model paths (path coefficients) was also direct and positive in the range (0.490-0.996). Also, the effect size of the research structures, which determines the intensity of the relationship between the models constructs, was evaluated as above average and large. The other variables together were also rated large. Also, the 2Q index coefficient of predictive power of the

research model was reported to be higher than 0.35, so the model has a strong predictive power for the indicators of each component or path. According to the researcher's innovative model, the research results in this question are in line with the results of Sanjarani (2020) and Shahraki Nader et al. (2016) used in connection with the path of career advancement, but the researcher used knowledge management to develop the steps of the path of career advancement.

The main question of the research: What is the career development model of female teachers based on the knowledge management model in the General Department of Education of Mazandaran Province?

Based on the findings, the T-values of the relationships of each of the main factors with each other and with the sub-factors in the conceptual-analytical model of the research, the correlation coefficient, the hidden variables between the paths and its dimensions are positive (in a straight line) and significant. The results of this study are unique and innovative in that four steps of career path in relation to the dimensions of knowledge management with the dimensions of Shine (2006) career path were proposed. That is, jet employees during the career path in the first step by sharing and exchanging knowledge in the organization can achieve a technical competence and managerial competence in the first step and in the second step by organizing and storing knowledge in the organization in the second step career path to strengthen the feeling Service and job security in the organization and in the third step by applying and applying knowledge cause independence and integrated style of work and life in the organization and the last step by creating knowledge and creativity in the fourth step to expand entrepreneurial innovation and solve pure challenges in the organization To turn. The managers of each organization may each have different ideas about career advancement, which should be used for the development of the organization. Equality with the consensus of these ideas, although not common, contributes to the

future of the organization. Therefore, managers of the General Department of Education of Mazandaran Province can use the thoughts and opinions of all employees, especially female teachers according to the model with the help of knowledge management to develop the organization and achieve their goals, while using the current career path model.

Therefore, while applying the dimensions of this model in the organization and developing the dimensions of career advancement in the organization, it can be concluded that employees and managers of the organization by establishing this model and implementing the legal and ethical requirements of its items in the organization can lead to national development and policies of the provincial education department. Mazandaran in the country. It is also possible to maintain the financial, material, spiritual and human resources of the organization by properly applying the management of developed knowledge of employees on their career path. Most opportunities for applying knowledge management are obtained through career advancement, which is related to how management and foresight of managers in an organization with a conceptual-analytical model in the organization, such as the model obtained from this research. The advantages of using the conceptual-analytical model of career development path based on knowledge management in this research have been theoretically proven and this model will be realized when the mentioned model of the research is practically observed, implemented and implemented in the General Administration because this conceptual-analytical model, like any other social issue, needs to be institutionalized so that it does not lose its efficiency and effectiveness. Among the dimensions of knowledge management, knowledge creation has the most relationship with the path coefficient (0.753) in the organization. On the other hand, the results of this research can be generalized to some extent to other organizations and society, and on the other hand, the model and culture that governs it is both influenced by the

foundations of society culture and can make fundamental changes in it if Directed in the right direction, it leads to the prosperity and excellence of human beings and society.

The effect of knowledge management on career development in the personal development of employees, especially female teachers in the model due to moderating variables, such as: previous experiences and skills of employees and disturbing variables such as: number of employees and social norms between members of the organization and society. And affect. Since all the theoretical-research models and findings are not tested and implemented and implemented in the mentioned organization (General Directorate of Education of Mazandaran Province), it can not be said that they are useful, but some of these research findings are useful. They are. Just as the geographical map of our country is not the same as our territory and territory, the findings of the conceptual-analytical model of this research are nothing but the approximate probability of anything that may happen. According to the limits and limitations for this research issue, the model of career advancement of female teachers with the knowledge management approach was obtained in the General Directorate of Education of Mazandaran Province. In fact, it is based on what has been researched and built on a simple methodology. Of course, these findings may be wrong under the executive microscope, and of course, part of it according to the limits and time constraints, disturbing and modifying variables of the research should be the same. However, the General Directorate of Education of Mazandaran Province still needs these research findings. The General Directorate of Education of Mazandaran Province will need these research findings because in the absence of these research findings, pure and transparent, it becomes more difficult and complex to understand the real world turmoil around the organization.

Therefore, according to the respondents' opinions on the research questionnaires, a final conclusion can be reached:

1- There is a direct and significant relationship between the knowledge sharing dimension of knowledge management and the first step of the career path and also between the first step of the career path with technical and managerial competencies. That is, with the increase in the exchange and sharing of knowledge of female teachers in the General Directorate of Education of Mazandaran Province, the mentioned technical and managerial competencies will increase.

2- There is a direct and significant relationship between the knowledge storage dimension of knowledge management and the second step of the career path and also between the second step of the career path with job security and the feeling of service in the organization. That is, with the increase in the storage of knowledge of female teachers in the General Directorate of Education of Mazandaran Province, job security and the sense of service of the mentioned female teachers will increase. 3- There is a direct and significant relationship between the applications of knowledge from knowledge management with the third step of the career path and also between the third step of the career path with independence and integrated lifestyle in the organization. That is, with the increase of knowledge storage among female teachers of the General Department of Education of Mazandaran Province, their job security and sense of service will increase.

4- There is a direct and significant relationship between the knowledge creation dimension of knowledge management and the fourth step of career advancement and also between the fourth step of career advancement with entrepreneurial innovation and solving pure challenges in the organization. That is, with the increase in knowledge creation among female teachers in the General Directorate of Education of Mazandaran Province, entrepreneurial innovation and solving their sheer challenges increases.

5- Between the first step of career advancement path with the second step of career advancement path, between the second

step of career advancement path with the third step of career advancement path and between the third step of career advancement path with the fourth step of career advancement path from the perspective of female teachers Mazandaran, in the conceptual-analytical model of career path, there is a direct and significant relationship. That is, with the increase of the first step, the path of career advancement increases, respectively, the second step, with the increase of the second step, the third step, and with the increase of the third step, the fourth step.

References

- Abbas, J., Zhang, Q., Hussain, I., Akram, S., Afaq, A, and Afzal Shad, M. (2020). Sustainable Innovation in Small Medium Enterprises: The Impact of Knowledge Management on Organizational Innovation through a Mediation Analysis by Using SEM Approach. *Sustainability*, (12), 1-19. <https://doi.org/10.3390/su12062407>
- Abdoli Masinan, F; Roudsaz, H & Seyyed Naghavi, A. (2020). The Effect of open innovation on competitive advantage considering the Mediation Role of knowledge management. *Industrial Management Studies*, 18(59), 117-150. <https://doi.org/10.22054/jims.2018.26323.1903>
- Agh Ghale, H; Soleymanipour Omran, M. (2021). Relationship between Knowledge Management and Entrepreneurship with Organizational Productivity and Innovation. *Quarterly Journal of Innovation and Creativity and Human Science*, 10(3), 205-232. https://journal.bpj.ir/article_668205.html?lang=en
- AmirHosseini, M. (2020). Establishing of the Supreme Knowledge Management Council of Iran, in order to coordination, coherence and standardization of the development of knowledge-based systems in the government sector. *Journal of Knowledge Retrieval and Semantic Systems*, 6(24), 167-205. <https://doi.org/10.22054/jks.2020.53617.1337>
- AnaMaria, A., Apostu, S., Paul, A & Casuneanu, I. (2020). Work Flexibility, Job Satisfaction, and Job Performance among Romanian Employees Implications for Sustainable HumanResource Management, *Journal of Sustainability*, 12, 18-41. <https://doi.org/10.3390/su12156086>
- Bao, F., Tian, L., Bu, X., Xiang, X., & Zhao, Y. (2018). Experience distribution, experienced leaders, and team performance. *Knowledge Management Research & Practice*, 16(1), 78-92. <https://doi.org/10.1080/14778238.2017.1408538>
- Delavar, A; Dehnad, M; Mohammadi Moghadam, Y & Alipour Darvishi, Z. (2019). Developing Anchor Strategies for Staff Career Progress. *National Defense Strategic Management Studies Quarterly*, 10(3), 418-449. 20.1001.1.74672588.1398.3.10.14.8
- Dermina, D., Shirdel, G., & Iranban, S. (2021). Illustration of the Position of Knowledge-Based Management in Iranian Organizations. *Journal of System Management*, 7(3), 89-110. doi: 10.30495/jsm.2021.1927569.1461
- Farrahi, A; Soltani, M & Nasrollahi, M. (2019). Designing a Model for Career Progression Pathway. *Journal of Research in Human Resources Management*, 10(4), 51-78. 20.1001.1.82548002.1397.10.4.3.2
- Fatemi Aghda, H; Tabataba'i Nasab, M & Sabokro, M. (2019). Investigating the Cognitive Theories of Career Development. *Journal of Public Administration*, 10(3), 481-502. <https://doi.org/10.22059/jipa.2018.259437.2286>
- Hosseini, A., Asghari Alaei, M., & Avatefi Jamil, S. (2020). Identifying and ranking the effective factors on the anchors of the career path of employees (Case study: Nezaja Degree Training Center), *Quarterly Journal of Contemporary Research in Management and Accounting*, 2(4), 46-66. <https://civilica.com/l/75162/>
- Ishida, H., Spilerman, S & Su, K. (2018). Models of Career Advancement in Organizations. *European Sociological Review*, 18(2), 179-198. <https://www.jstor.org/stable/3559498>
- Jaafari, A., Daneshfard, K., & Mehrara, A. (2021). Identifying Indicators and Components of Knowledge Capital and Human Resource Strategies in the Iranian Higher Education System. *Journal of System Management*, 7(3), 263-281. doi: 10.30495/jsm.2021.1934005.1492
- Morshedi Tonekaboni, M. (2020). The relationship between knowledge management and professional development and job performance of Ilam University staff in 2019.

- Quarterly Journal of Political Science Studies*, 6(24), 25-42.
<https://doi.org/10.22054/jks.2020.51742.1319>
- Mousavi Shamsabad, J; Bahramzadeh, H & Samanian, M. (2021). Investigating the effect of applying knowledge management on supply chain management using a balanced scorecard (Case Study: wheat supply chain in Iran state trading company). *Supply Chain Management Quarterly*, 22(69), 4-19. 20.1001.1.20089198.1399.22.69.1.4
- Najam, U., Burki, U & Khalid, W. (2020). Does Work-Life Balance Moderate the Relationship between Career Commitment and Career Success? Evidence from an Emerging Asian Economy? *Journal of Administrative Science*, 10(82): 46- 69.
<https://doi.org/10.3390/admsci10040082>
- Palizdar, K; MirBargkar, M; Shahroudi, K & Chirani, E. (2020). Designing and testing a model to explain economic transparency and national trust with emphasis on e-commerce. *Quarterly Journal of Accounting and Accounting Research*. 46, 87-206.
<https://doi.org/10.22034/iaar.2020.112788>
- Paoloni, M., Coluccia, D., Fontana, S. and Solimene, S. (2020). Knowledge management, intellectual capital and entrepreneurship: a structured literature review. *Journal of Knowledge Management*, 24(8), 1797-1818.
<https://doi.org/10.1108/JKM-01-2020-0052>
- Popovic, A., Puklavec, B., & Oliveira, T. (2019). Justifying business intelligence systems adoption in SMEs: Impact of systems use on firm performance. *Industrial Management & Data Systems*, 119(1), 210-228.
<https://doi.org/10.1108/IMDS-02-2018-0085>
- Rahimian, T; Miandari, K & AliAhmadi, A. (2020). Designing and Explaining the Strategic Model of Women's Career Development in Public Organizations with an Emphasis on Islamic-Iranian Lifestyle. *Journal of Islamic Management*, 28(2), 107-150. 20.1001.1.22516980.1399.28.2.5.2
- Rahmati, Z; & Shirvani, A & Dalvi, M. (2020). Designing and Testing a Model for Cyberloafing in Government Agencies. *Management Studies in Development & Evolution*, 29 (96), 79-102.
<https://doi.org/10.22054/jmsd.2020.45562.3396>
- Rezaei, F; Hosseinpour, M & MehrAlizadeh, Y. (2021). Presenting a Practical Knowledge Management Model with the Aim of Improving Employees (Case Study: National Iranian South Oil Company). *Journal of New Approaches in Educational Administration*, 11(44), 137- 152.
 20.1001.1.20086369.1399.11.44.7.2
- Sanjarani, A. (2020). Feasibility study of establishing knowledge management (Case study: Sistan and Baluchestan Gas Company). *Quarterly Journal of New Research Approaches in Management and Accounting*, 4(45), 160-175.
<https://doi.org/10.22055/slis.2017.19062.1263>
- Seidzadeh, H; & Hakkak, M; Sepahvand, R & Vahdati, H. (2020). The Model of Career Capital Accumulation of Senior Managers of the Jihad-e-Agriculture Ministry. *Management Studies in Development & Evolution*, 29 (95), 79-102.
<https://doi.org/10.22054/jmsd.2020.37205.3066>
- Shahraki Nader, Z; Shahraki Nader, M & Khoshbin, R. (2020). Investigating the relationship between education promotion opportunities and organizational commitment of health laboratory staff. *Quarterly Journal of New Research Approaches in Management and Accounting*, 4(31), 118-137.
<https://majournal.ir/index.php/ma/article/view/382>
- Sharafizadeh, D., Abbasi, E., & Mehrabi, J. (2021). Designing a Career Path Model Based on the Knowledge Management Model in Start-Ups. *Journal of System Management*, 7(2), 149-169.
 doi: 10.30495/jsm.2021.1935082.1496
- Shujahat, M., Sousa, M. J., Hussain, S., Nawaz, F., Wang, M., & Umer, M. (2019). Translating the im-pact of knowledge management processes into knowledge-based innovation: The neglected and mediating role of knowledge-worker productivity. *Journal of Business Research*, (94), 442-460.
<https://doi.org/10.1016/j.jbusres.2017.11.001>
- Taheri Goodarzi, H & Norouzi, N. (2019). The Impact of Career Adaptability on Career Plateau: The Mediating Role of Person-Job Fit and Person-Organization Fit. *Journal of Process Development & Management*, 32 (3), 3-26. <https://doi.org/10.29252/jmdp.32.3.3>
- Vande Griek, O., Clauson, M., Eby, L. (2019). Organizational career growth and proactivity: A typology for individual career development. *Journal of Career Development*, 3 (7), 1-14.
<https://doi.org/10.1177/0894845318771216>
- Weng, Q & Zhu, L. (2020). Individuals' Career Growth Within and Across Organizations: A Review and Agenda for Future Research. *Journal of Career Development*, 6(8), 98-124.
<https://doi.org/10.1177/0894845320921951>

- Yavari Gohar, F; Mansouri Moayed, F & Moradi, M. (2020). The Effect of Psychological Pressures on Job Satisfaction, Taking into Account the Ethics of Islamic Work and Organizational Commitment. *Development of Logistics & Human Resource Management*, 9(55), 130-155.
<https://doi.org/10.1007/s10551-021-04940-y>
- YuWong, A. (2013). Making Career Choice: A Study of Chinese Managements. *Journal Human Relations*, 60(2), 125-140.
<https://doi.org/10.1177/0018726707081661>