

Explaining the mediating role of knowledge hiding with learning and creativity of Gilan water and wastewater employees

Gholamreza Moghadasi^a, Hamidreza Rezaei Kelidbari^{a,*}, Mohamad Doustar^b

^aDepartment of Public Administration, Rasht Branch, Islamic Azad University, Rasht, Iran

^bDepartment of Business Management, University of Guilan, Rasht, Iran

(Communicated by Seyyed Mohammad Reza Hashemi)

Abstract

This study aimed to explain the mediating role of knowledge hiding regarding the relationship between human resources components and the learning and creativity of the national water and wastewater engineering company employees. This quantitative and descriptive method was conducted on 987 national water and wastewater engineering company employees in Gilan province, 125 of whom were selected by purposive sampling. The data collection tool was a questionnaire, and content validity and construct validity were used for the validity of the questionnaire. Cronbach's alpha coefficient and composite reliability were utilized for the reliability of the questionnaire. SPSS software was used at the level of descriptive statistics and Smart PLS for the inferential part. The results of structural equation modeling with the partial least squares approach showed that human resources components have a negative relationship with knowledge hiding and human resources components have a positive relationship with learning and creativity. The results of the Sobel test and VAF index revealed that the knowledge hiding variable partially mediates the relationship between human resources components and the learning and creativity of employees of the water and wastewater engineering company. The results of the research hypotheses revealed that with the increase of human resources components, the level of knowledge hiding decreases, and subsequently, the level of creativity and learning increases. Therefore, the water and wastewater administration of Gilan province should try to improve perceived organizational policies, perceived organizational justice, and perceived organizational trust.

Keywords: Knowledge hiding, Learning, creativity, Human resources components, Water, Wastewater management
2020 MSC: 91B76

1 Introduction

Knowledge creates a competitive advantage for the organization as capital and improves the organization's performance in various aspects, such as increasing innovation capability and organizational productivity [18]. Previous studies have repeatedly reported that organizations should consider the risks of knowledge hiding in addition to seeing knowledge as an effective asset [4]. Using people's intellectual capacities in problem-solving processes, improving knowledge, improving individual skills, and increasing quality in performing tasks are one of the challenges facing institutions and organizations. Most people think of their knowledge as a power source, an influential lever, or a

*Corresponding author

Email addresses: tamiss123@yahoo.com (Gholamreza Moghadasi), hrezaee@iaurasht.ac.ir (Hamidreza Rezaei Kelidbari), doustar@guilan.ac.ir (Mohamad Doustar)

guarantee for the continuation of their job, and they do not want to share and conceal it with others [20]. Revealing and disseminating knowledge is one of the essential components of knowledge management. Therefore, knowledge disclosure may have a negative impact on the organization when it is minimized in the organization [10]. Generally, organizations want their employees to share what they know with each other. However, despite organizations' efforts to encourage employees to share knowledge, many employees avoid doing so, a phenomenon known as knowledge hiding [6].

This reluctance to transfer knowledge exists even when employees are encouraged and rewarded. The increase in the organization's cost of knowledge production is one of the most significant negative effects of knowledge hiding, which reduces organizational productivity and effectiveness and increases organizational forgetfulness [21]. [18] showed that the negative effects of knowledge hiding are always on the employees and the organization, and its destructive effects can always be investigated and evaluated at the individual and organizational levels. In contrast to this relatively justified reason, knowledge hiding prevents the organization from becoming a stable organization and negatively affects creativity and team performance [26]. In the phenomenon of knowledge hiding, a person who is aware of knowledge shows defensive behavior in interaction with a person seeking knowledge when these people are working in a work unit. The same defensive behavior among employees of a unit adversely affects team performance and the performance of the same unit and, on a broader level, organizational performance [26, 25]. Various researchers believe this phenomenon is an inappropriate mechanism that causes employees to face problems fulfilling their job duties due to the lack of diffusion and inadequacy in applying knowledge [24]. [18] believe that knowledge hiding causes problems in all the organization's process mechanisms, increases mistrust, damages relationships between colleagues, and causes jealousy among them [18].

Therefore, persuading people to share what they know is one of the fundamental challenges of organizations. Enlightened organizations have used various motivational factors to show that they are self-determined to reduce the phenomenon of knowledge hiding in the organization [13]. Many leading organizations have not succeeded in this field [5]. In this study, national water and wastewater engineering company is investigated as a governmental organization (so-called non-governmental) due to the selection of its CEO and board members by the Ministry of Energy and having government budgets. Every year, several employees in government organizations retire or are transferred from managerial positions to expert positions due to political changes. Applying the knowledge of these people before retiring or changing management positions, or encouraging them to share the acquired knowledge is one of the most important problems of these organizations [2].

The researcher has much experience in the mentioned company, during the past years, he observed many challenges in knowledge management, knowledge registration, use and application of knowledge, and knowledge sharing. Among other things, the company did not pay attention to the leveling and sharing of knowledge in a purposeful and problem-oriented manner, which acts as an organizational factor that hinders the disclosure of knowledge. In this regard, the organization's processes are designed so there is no suitable space for revealing knowledge, and employees tend to conceal knowledge. Water and wastewater companies often use contractors because many of their activities are carried out on the ground in various projects within this sector. In many cases, the contractors fail to provide the knowledge acquired during the project, and the knowledge produced during the implementation of the project is either not recorded correctly or is not published intentionally by the contractors. Another issue of the organization is the hiding of knowledge related to the employment status of the company's employees. Empirically, permanently employed employees always show a greater tendency to conceal knowledge, and contractual employees are more involved in knowledge exchange processes and show more collaborative behaviors in knowledge dissemination and expression. Therefore, employees with more job security (continuity of cooperation) than their colleagues are likelier to engage in knowledge hiding behaviors. Another unintentional issue is related to the hiding of knowledge at the executive level of the organization, it is related to changes and appointments in the executive and strategic projects of the organization. This issue occurs when project managers from senior are left out unexpectedly to middle levels during the implementation of critical provincial projects. The new managers started implementing the project without needing implementation knowledge and documentation, including the project's floating time, critical paths, resource limitations, and resource allocation. In this case, many issues and problems occur for the desired projects.

2 Conceptual model of research

A model is presented in Figure 1 in this research by reviewing the research literature and mining background. According to the literature review, perceived organizational policy variables, perceived organizational justice, and perceived organizational trust have a negative relationship with knowledge hiding. In addition, the relationship between knowledge hiding variables and learning and creativity variables is predicted negatively. In the presented model,

perceived organizational policies, perceived organizational justice, and perceived organizational trust are considered independent variables, knowledge hiding as a mediating variable, and learning and creativity variables as dependent variables. In this regard, the following hypotheses were designed:

1. There is a significant relationship between perceived organizational policies and knowledge hiding.
2. There is a significant relationship between perceived organizational policies and employee learning.
3. There is a significant relationship between perceived organizational policies and employees' creativity.
4. There is a significant relationship between perceived organizational justice and knowledge hiding.
5. There is a significant relationship between perceived organizational justice and employee learning.
6. There is a significant relationship between perceived organizational justice and employee creativity.
7. There is a significant relationship between perceived organizational trust and knowledge hiding.
8. There is a significant relationship between perceived organizational trust and employee learning.
9. There is a significant relationship between perceived organizational trust and employee creativity.
10. There is a significant relationship between knowledge hiding and employee learning.
11. There is a significant relationship between knowledge hiding and employee creativity.
12. Knowledge hiding mediates between perceived organizational policies and employee learning.
13. Knowledge hiding mediates between perceived organizational policies and employee creativity.
14. Knowledge hiding mediates between perceived organizational justice and employee learning.
15. Knowledge hiding mediates between perceived organizational justice and employee creativity.
16. Knowledge hiding mediates between perceived organizational trust and employee learning.
17. Knowledge hiding mediates between perceived organizational trust and employee creativity.

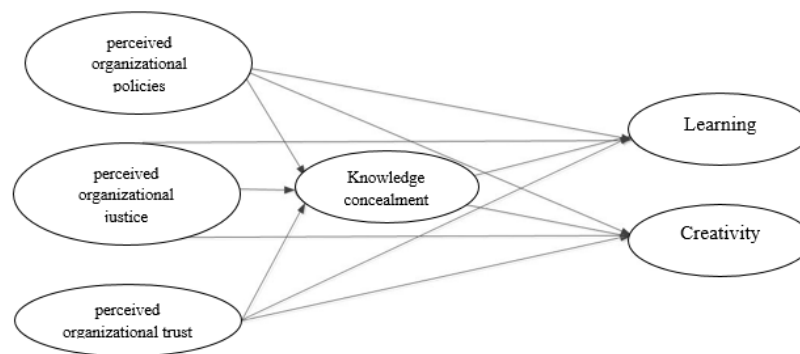


Figure 1: Conceptual model of research

3 Research methodology

This quantitative, applied, and descriptive study was conducted on 987 national water and wastewater engineering company employees in Gilan province, 125 of whom were selected by purposive sampling. People were selected as samples who had a good experience in terms of work history and field of activity. A questionnaire was used to collect data, content validity, and construct validity were utilized to check the validity of the questionnaire, and Cronbach's alpha coefficient and composite reliability were applied to check the reliability of the questionnaire. SPSS software version 22 was used for data analysis at the level of descriptive statistics, and Smart PLS version 3 software was utilized for inferential analysis due to the small sample size. Sobel Test was used to test mediation hypotheses, and content validity was utilized to check validity. The opinions of the supervisor, consultant, and some subject experts were obtained, and the questionnaire was modified. Then, the validity of the structure was checked, and in this part, divergent and convergent validity were used. The average variance extracted (AVE) was examined in the convergent validity section. The appropriate value of this index should be greater than 0.5, and since this index is more significant than 0.5 for all variables, convergent validity is confirmed. The results obtained for convergent validity are presented in Table 1:

Fornell and Larcker index was used to check the divergent validity. The values on the primary diameter of the matrix must be greater than the lower and adjacent numbers, and their values must be greater than 0.5. The results of divergent validity are also presented in Table 2.

Table 1: Convergent validity test results

Variables	The average variance extracted (AVE)
Perceived organizational trust	0.591
Creativity	0.517
Perceived organizational policies	0.598
Perceived organizational justice	0.628
Knowledge hiding	0.730
learning	0.711

Table 2: Results of divergent validity

Research variables	Perceived organizational trust	Creativity	Perceived organizational policies	Perceived organizational justice	Knowledge hiding	Learning
Perceived organizational trust	0.769					
Creativity	0.674	0.719				
Perceived organizational policies	0.682	0.642	0.773			
Perceived organizational justice	0.680	0.502	0.527	0.792		
Knowledge hiding	0.461	0.576	0.666	0.432	0.854	
learning	0.844	0.635	0.685	0.550	0.505	0.843

Table 3: Reliability check results

Variables	Cronbach's alpha	composite reliability coefficient
Perceived organizational trust	0.914	0.928
Creativity	0.802	0.859
Perceived organizational policies	0.924	0.937
Perceived organizational justice	0.900	0.920
Knowledge hiding	0.907	0.931
learning	0.863	0.907

Cronbach's alpha and composite reliability coefficients were used to check the reliability that the acceptable value for both indicators is higher than 0.7. Reliability is also confirmed because the values obtained through these methods are higher than 0.7.

Two coefficient indicators were determined before examining and testing the research model, and Steven and Keyser's index was also examined. The coefficient of determination is a critical indicator of the goodness of fit model to show the impact of an exogenous variable on an endogenous variable. Three values of 0.19, 0.33, and 0.67 were criteria values for weak, medium, and strong values of R².

Table 4: The results of examining the coefficients of determination

Mediating and dependent variables of the research	Coefficient of determination
Creativity	0.894
Knowledge hiding	0.445
learning	0.741

According to the results of coefficients of determination, creativity variables with a value of 8940 and learning variables with a value of 0.741 are in excellent condition. In other words, about 89.4% of the changes in the creativity variable are influenced by the independent and mediating variables of the research. On the other hand, about 74.1% of the changes in the learning variable can be explained by the independent and mediating variables. The knowledge

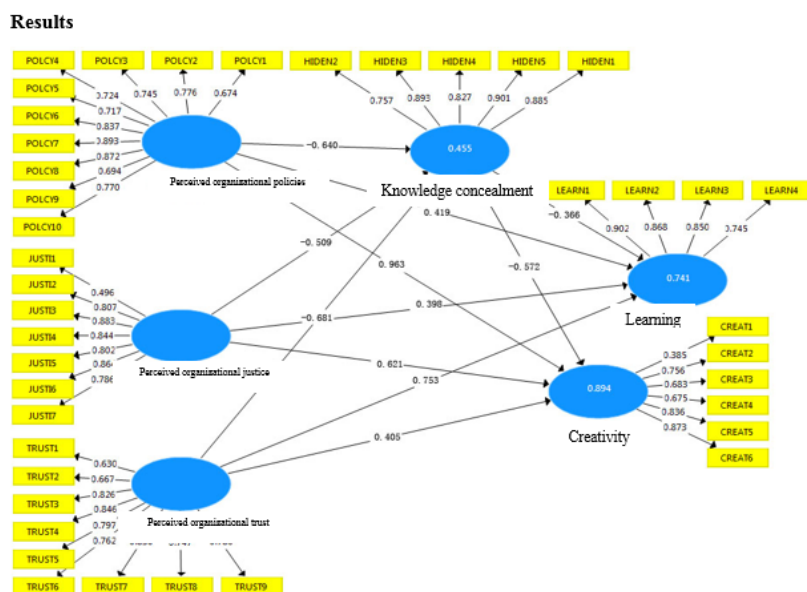


Figure 2: Research model in standard estimation mode to display factor loadings of questions

hiding variable is at the average level with a coefficient of determination of 0.445, about 44.5% of which can be explained by independent variables. Steven and Gaesser’s index was also used for a more detailed analysis. This criterion was introduced by Steven and Gaesser and determined the model’s predictive power. Models with an acceptable structural fit should be able to predict indicators related to the endogenous structures of the model. If the relationships between the structures are correctly defined in a model, the structures are endogenous to the model. When the relationships between the constructs are correctly defined, three values between 0.02 and 0.15 indicate a weak effect, between 0.15 and 0.35 indicate a moderate effect, and more significant than 0.35 indicate a significant effect of independent variables on dependent variables. The results obtained from this index are presented in Table 5:

Table 5: The results of Steven and Gaesser’s index

Research variables	SSO	SSE	Q ² (=1-SSE/SSO)
Perceived organizational trust	150.066	150.066	
Creativity	110.519	61.194	0.446
Perceived organizational policies	154.400	154.400	
Perceived organizational justice	114.048	114.048	
Knowledge hiding	97.382	64.905	0.333
Learning	62.967	26.779	0.575

According to the results of Steven and Gaesser’s index, independent variables have a significant impact on the dependent variable. Therefore, the model has relatively predictive solid power because the predictive power of the structures is more significant than 0.35, and the predictive power of the model is very high. The partial least squares approach was used using SmartPLS software due to the non-normality of data distribution. In this approach, two models are used in the standard estimation mode and the model in the significance mode to test the research hypotheses. The value of the estimation coefficient is between zero and positive one and zero and negative one. When the estimation coefficient is in a positive range, the variables have a positive, direct, and significant effect on each other, and when it is in a negative range, the variables have a negative, inverse, and significant effect on each other. In this research, there were mediation hypotheses in addition to direct hypotheses. Sobel’s test was used to test mediation hypotheses, which can be used to analyze the online mediation role. In Figure 2, the research model was presented as significant numbers, which were used to check the significance of the research hypotheses.

This research used the beta path coefficient and significant numbers to check the research hypotheses. Table 6 presents the results of the hypotheses related to the relationship between the independent variables and the mediator, the independent variable and the dependent variable, and finally, the mediator and the dependent variable.

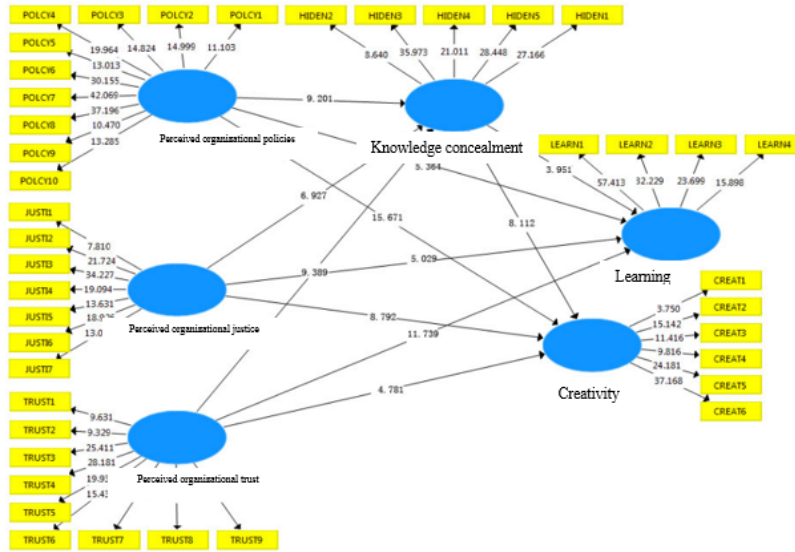


Figure 3: Research model in the mode of significant numbers to check the significance of relationships

Table 6: Examination of research hypotheses

Research hypotheses	Beta co.	Significance value	Result
There is a significant relationship between perceived organizational policies and knowledge hiding.	-0.640	9.201	Confirmed
There is a significant relationship between perceived organizational policies and employee learning.	0.419	5.364	Confirmed
There is a significant relationship between perceived organizational policies and employees' creativity.	0.963	15.671	Confirmed
There is a significant relationship between perceived organizational justice and knowledge hiding.	-0.509	6.927	Confirmed
There is a significant relationship between perceived organizational justice and employee learning.	0.398	5.029	Confirmed
There is a significant relationship between perceived organizational justice and employee creativity.	0.621	8.792	Confirmed
There is a significant relationship between perceived organizational trust and knowledge hiding.	-0.681	9.389	Confirmed
There is a significant relationship between perceived organizational trust and employee learning.	0.753	11.739	Confirmed
There is a significant relationship between perceived organizational trust and employee creativity.	0.405	4.781	Confirmed
There is a significant relationship between knowledge hiding and employee learning.	-0.366	3.951	Confirmed
There is a significant relationship between knowledge hiding and employee creativity.	-0.572	8.112	Confirmed

Formula (1); Goodness of Fit Index (GFI)

$$GFI = 1 - \frac{F_M}{F_{IND}} \tag{1}$$

Formula (2); Adjusted Goodness of Fit Index (AGFI)

$$AGFI = 1 - (1 - GFI) \frac{dl_{IND}}{dl_M} \tag{2}$$

Formula (3); Comparative Fit Index (CFI)

$$GFI = 1 - \frac{F(S, \sum \theta)}{F(S, \sum (.))} \tag{3}$$

Formula (4); Normalized Chi-square Index (CMIN)

$$X^2 = \sum \frac{(Fo - Fe)^2}{Fe} \quad (4)$$

Formula (5); the Root Mean Squared Error Approximation (RMSEA)

$$RMSEA = \sqrt{\frac{X^2 - df_{model}}{(N - 1) * df_{model}}} \quad (5)$$

According to the results, eleven initial hypotheses of the research were confirmed at a confidence level of 95%. The results of the beta coefficient showed that the variables of perceived organizational policies, perceived organizational justice, and perceived organizational trust has a negative relationship with knowledge hiding. The highest degree of relationship between these three variables and knowledge hiding was related to the variable of perceived organizational trust and was equal to -0.681. Therefore, knowledge hiding decreases by 0.681 per unit increase in perceived organizational trust. Perceived organizational policies had the highest relationship with creativity in terms of the highest relationship intensity, and this value was equal to 0.963. The amount of creativity increased by 0.963 for an increase of one unit of perceived organizational policies. Table 7 represents the results of the mediating hypotheses of the research.

Table 7: Examining the mediating hypotheses of the research

Hypotheses	VAF	Sobelstatistics	Result
Knowledge hiding plays a mediating role between perceived organizational policies and employee learning.	0.358	3.6304	Confirmed
Knowledge hiding plays a mediating role between perceived organizational policies and employee creativity.	0.275	6.0848	Confirmed
Knowledge hiding has a mediating role between perceived organizational justice and employee learning.	0.318	3.4319	Confirmed
Knowledge hiding has a mediating role between perceived organizational justice and employee creativity.	0.319	5.2677	Confirmed
Knowledge hiding has a mediating role between perceived organizational trust and employee learning.	0.248	3.6416	Confirmed
Knowledge hiding has a mediating role between perceived organizational trust and employee creativity.	0.489	6.1382	Confirmed

The mediating hypothesis test confirmed the mediating role of knowledge hiding in the relationship between human resources components and employees' learning and creativity. However, knowledge hiding's mediating role is partially mediating, considering that the VAF index is 0.2 to 0.8.

4 Discussion, conclusion, and recommendations

A model was presented based on theoretical and empirical studies, and seventeen hypotheses were formulated. The results showed a negative relationship between the perceived organizational policies and the knowledge hiding variable, and there is a positive and significant relationship with the learning and creativity variables. The relationship between perceived organizational justice and knowledge hiding variable results are negative and inverse, and learning and creativity variables are positive and direct. There is a negative relationship between perceived organizational trust and knowledge hiding and a positive and significant relationship between organizational trust and learning and creativity. The variable role of knowledge hiding in the relationship between the components of human resources, learning, and creativity was confirmed as a partial mediator. The results of perceived organizational policies, employee creativity, and the mediating role of knowledge hiding and perceived organizational policies and creativity were consistent with [4, 12, 17, 23, 14, 7] and [16]. [8, 19, 22] found a significant relationship between organizational policies and employee creativity and knowledge hiding, which is in line with this hypothesis. The hypothesis test of the relationship between perceived organizational trust and perceived organizational justice with knowledge hiding and learning and creativity is also in line with [1] and [11]. The hypothesis test of the relationship between perceived organizational policy and knowledge hiding and the hypothesis related to the relationship between perceived organizational policy, creativity, and ethical knowledge hiding, confirmed in this research, is in line with [4]. The result of the hypothesis related to the relationship between perceived organizational justice with creativity and knowledge hiding is in line with [9]. The results of the relationship of knowledge hiding with learning and creativity align with [26]. The relationship between

perceived organizational justice and perceived organizational trust with the variables of knowledge hiding, learning, and creativity is in line with [3] and [15]. According to the test of the research hypotheses, some suggestions are also presented to the managers:

- Applying incentive and motivational mechanisms to document valuable and practical knowledge with a systemic perspective and free access to knowledge to prevent reworking in the organization.
- Encouraging transparent criticism and providing solutions to strengthen perceived organizational policies.
- Lack of political work in promoting people and making decisions based on meritocracy
- Ensuring that employees' opinions are considered before making job decisions to strengthen perceived organizational justice. Ensuring the possibility of protesting the general manager's job decisions. Paying attention to employees' personal needs to reduce hiding and improve the creativity and learning of employees.
- Delegating more authority to employees based on new leadership styles to increase perceived trust.

5 Limitations and recommendations for future research

In this research, the dimensions of knowledge hiding were not studied. Therefore, future studies can evaluate the effect of knowledge hiding on rational hiding, elusive hiding, and vague hiding. Due to the possibility of increasing knowledge hiding with job complexity, future studies can add and study the job complexity variable as a moderating variable to the research model. The perceived organizational justice variable was studied as a first-order variable. Therefore, future studies should can the variable of organizational justice about distributive justice, interactional justice, and procedural justice.

References

- [1] R. Ahmadi, R. Tolai and H. Siadat, *Factors affecting the behavior of knowledge hiding in the organization using the planned behavior model*, Thesis for the Master's Degree, Shahid Beheshti University, Faculty of Management and Accounting, 2018.
- [2] S.M. Allameh, N. Askari and J. Khazaipur, *Investigating the effect of organizational culture on organizational performance, emphasizing the role of knowledge sharing and organizational agility with a balanced scorecard approach*, *Organ. Culture Manag.* **14** (2014), no. 2, 453–474.
- [3] A. But, *Consequences of top-down knowledge hiding in firms: A pilot study*, *Heliyon.* **5** (2019), 1–5.
- [4] X. Chen, Sh. Wei and R.E. Rice, *Integrating the bright and dark sides of communication visibility for knowledge management and creativity: The moderating role of regulatory focus*, *Comput. Human Behav.* **111** (2020), 1–12.
- [5] S.E. Fatemi Nasab and M. Latifi, *Investigating the relationship between organizational structure and knowledge sharing in the journalism of the Islamic Republic of Iran*, *Nat. Defense Strategic Manag. Res. J.* **3** (2019), no. 10, 7–34.
- [6] M. Gagne, A. Tian, C. Soo, B. Zhang, K.S.B. Ho, and K. Hosszu, *Why employees don't share knowledge with each other*, *Harvard Bus. Rev.* (2019), 1–5.
- [7] H. Hghsetan and H. Janati Far, *The study of the effect of perceived organizational policies on employees' creativity with the mediating role of knowledge hiding (case study: Tehran's Hemian Fan Sanat Barq Company)*, *Fourth Int. Conf. Modern Manag. Account. Econ. Bank. Tech. Approach Bus. Growth*, 2020.
- [8] M. Hosseini, O. Arghish and B. Jahantigh Rahimi, *Influential factors in reducing the hiding of individual knowledge among Bidbland Behbahan Gas Refinery employees*, *Fourth Int. Conf. Modern Manag. Account. Econ. Bank. Tech. Approach Bus. Soc. Sci.*, 2019.
- [9] G. Jiang and Y. Xu, *Tacit knowledge sharing in IT R&D teams: Nonlinear evolutionary theoretical perspective*, *Inf. Manag.* **57** (2020), no. 4, 103211.
- [10] Y. Jung Kang, J. Young Lee and H. Kim, *A psychological empowerment approach to online knowledge Sharing*, *Comput. Human Behav.* **74** (2017), 175–187.

- [11] S. Labafi and A. Qolipur, *presentation of a contextual model of knowledge hiding in software production companies*, Organ. Resource Manag. Res. Quart. **5** (2014), no. 1, 1–23.
- [12] M. Lin, X. Zhang, B. Serene Ng and L. Zhong, *Lirong to empower or not to empower? multilevel effects of empowering leadership on knowledge hiding*, Int. J. Hospital. Manag. **89** (2020), 1–11.
- [13] S.M. Mir Mortazavi, A. Afraze and S.M. Mortazavian, *Knowledge sharing in the organization using AHP hierarchical process*, Int. Conf. Manag. Account., 2017, pp. 1–10.
- [14] S.A. Mirsaidi, *Investigating the impact of employees' perception of organizational policies on employees' creativity; The mediating role of knowledge hiding and the moderating role of organizational commitment (Case study: Branches of Zone 1 of Bank Mellat Tehran)*, Master's Thesis, Department of Management and Accounting, Central Tehran Branch, Islamic Azad University, 2020.
- [15] A. Mohammed, E. Behraves, H. Rezapouraghdam and S. Baha Yildiz, *Applying artificial intelligence technique to predict knowledge hiding behavior*, Int. J. Information Manag. **49** (2019), 45–57.
- [16] M.R. Nouri Khanghah, *Investigating the impact of perceived organizational policies on employees' creativity with the mediating role of knowledge hiding and moderation of professional commitment (case study: National Bank of Mazandaran Province)*, Master's Thesis, Department of Management and Accounting, Behshahr Branch, Islamic Azad University, 2020.
- [17] M. Omer Farooq, Sh. Asif, M.M. Raziq, M. Majid Khan and A. Saquib Yusaf, *Perceptions of organizational politics, knowledge hiding, and employee creativity: The moderating role of professional commitment*, Personal. Individ. Differ. **142** (2019), 232–237.
- [18] Ch. Xiong, V. Change, V. Scutto, Y. Shi and N. Paoloni, *The social-psychological approach in understanding knowledge hiding within international R&D teams: An inductive analysis*, J. Bus. Res. **128** (2021), 799–811.
- [19] S. Safari and M. Ghasemi Namghi, *Examining the relationship between perceived organizational policies and knowledge hiding with employees' creativity concerning the moderating role of employees' professional commitment*, Master's Thesis, Faculty of Management, Sabzevar Branch, Islamic Azad University, 2019.
- [20] E. Salmani Jelodar and H. Gholam Ali. Hessam, *Identification of individual barriers to knowledge sharing in public and private organizations*, Int. Conf. Manag. Elites, 2016.
- [21] M. Salimi and Z. Mousavi, *The relationship between professional ethics and purposeful organizational learning and forgetting: the mediating role of knowledge sharing*, Ethics Res.Quart. Sci. Technol. **14** (2018), no. 2, 74–82.
- [22] Gh. Shamshirian, M. Mahmoudi and M. Ghiyashi, *Investigated the moderating role of professional commitment based on understanding organizational policy, knowledge hiding, and employee initiative*, Nat. Conf. New Ideas Appl. Res. Humanities, 2019.
- [23] A.H. Sharifi, *The impact of perceived organizational policies on employee creativity through knowledge hiding (case study: Jihad Agricultural Organization, Kurdistan Province)*, Master's Thesis, Payam Noor University, Central Province, Payam Noor Saveh Center, 2020.
- [24] Sh. Shivani and T. Durga, *MR-I MaxMin-scalable two-phase border-based knowledge hiding technique using MapReduce*, Future Gen Comput Syst. **109** (2020), 538–550.
- [25] N. Wang, Y. Sun, X. Shen and X. Zhang, *A value-justice model of knowledge integration in wikis: The moderating role of knowledge equivocality*, Int. J. Inf. Manag. **43** (2018), 64–75.
- [26] Zh. Zhang and M. Min, *The negative consequences of knowledge hiding in NPD project teams: The roles of project work attributes*, Int. J. Project Manag. **37** (2019), 225–238.