



Does knowledge-oriented leadership moderate the relationship between organizational structure and knowledge hiding?

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Abstract

Over the last decade, knowledge hiding has drawn the attention of knowledge management researchers. This organizational phenomenon has several antecedents and outcomes that need to be taken to the academic considerations. The purpose of this study is to investigate the relationship between centralization as an organizational structure and knowledge hiding(KH), and to test the moderating role of knowledge-oriented leadership(KOL). To test this research model, the field data were collected from five Iraqi Kurdistan public universities. The collected data were analyzed by using SPSS to conduct several statistical tests such as correlation, regression and moderation tests. The findings of this study showed that there is a positive and significant relationship between centralization and knowledge hiding, they also showed that the knowledge-oriented leadership style moderates the relationship between centralization and knowledge hiding, in a way that the higher the level of knowledge-oriented leadership style the less knowledge hiding will happen. This paper is expected to contribute in enriching the existing theories as it has been carried out in an unexplored research setting of Iraqi Kurdistan. It also provides some practical implications for the top management level in higher education institutions that public universities in Kurdistan can follow the findings and implement the recommendations.

Key words: knowledge management, centralization, knowledge-oriented leadership, knowledge hiding, public organizations.

ئایا سهرکردایه تی ئاراسته کراوی-مه عریفی په یوهندی نیوان پیکهاته ی ریکخراوه یی و شاردنه وهی زانین مامناوهند ده کات؟

شوانه حسن علی

به شی بهرپوهبردنی کار، کۆلیژی زانسته مروّفایه تییه کان، زانکۆی راپهرین، رانیه، ههریمی کوردستان، عیراق.

پوخته

له ماوهی دهیهی رابردودا، شاردنه وهی مه عریفه سهرنجی توژیهرانی بهرپوهبردنی مه عریفی راکیشاوه. ئەم دیارده ریکخراوه ییه چهن دین پشینه و ده رته نجامی ههیه که پتویستی به سهرنجدان و لیکۆلینه وهی ئەکادیمی ههیه. ئامانج له م لیکۆلینه وهیه بریتی یه له لیکۆلینه وهی په یوهندی نیوان مه رکه زیهت وهک پیکهاته یه کی ریکخراوه یی و شاردنه وهی مه عریفه و تاقیکردنه وهی رۆلی مامناوهندی سهرکردایه تی ئاراسته کراوی مه عریفی. بۆ تاقیکردنه وهی ئەم مۆدێله توژیینه وهیه، داتای مهیدانی له پینج زانکۆی حکومی کوردستانی عیراق کۆکرایه وه. داتا کۆکراوه کان به به کارهینانی SPSS شیکرانه وه بۆ ئەنجامدانی چهن دین تاقیکردنه وهی ئاماری وهک تاقیکردنه وهکانی په یوهندی و مامناوهندی. ده رته نجامهکانی ئەم توژیینه وهیه ده ریانخست که په یوهندییه کی ئەرینی و بهرچاو له نیوان مه رکه زیهت و شاردنه وهی مه عریفه دا ههیه، ههروه ها نیشانیا نندا که شیوازی سهرکردایه تی ئاراسته کراوی مه عریفی په یوهندی نیوان مه رکه زیهت و شاردنه وهی زانیاری مامناوهند ده کات، به شیوهیه ک که تا ئاستی شیوازی سهرکردایه تی ئاراسته کراوی مه عریفی بهر زتر بیت شاردنه وهی زانیاری که متر روده دات. چاوه روان ده کریت ئەم توژیینه وهیه به شداری بکات له دهوله مه ندرکردنی تیورییه کان وهک چۆن له ژینگه یه کی لیکۆلینه وهی وهک کوردستانی عیراقدا ئەنجامدراوه. ههروه ها چهن کاریه گهری کردیهی بۆ ئاستی بهرپوهبردنی بۆلا له داموده رگاکی خویندنی بۆلا ده دات که زانکۆ حکومیهییهکانی کوردستان بتوانن شوێنکهوتنه کان په رپه و بکهن و راسپارده کان جێبه جێبکهن.

وشه ی سهره کیه کان: بهرپوهبردنی مه عریفه، مه رکه زیهت، سهرکردایه تی ئاراسته کراوی مه عریفی، شاردنه وهی مه عریفه، ریکخراوه گشته ی کان.

Introduction

Organizations have no other resource as important as knowledge, therefore they need to manage this competitive resource effectively (Ali, 2017, 2021; Fredrickson, 1986). Employees are always expected to share what they have as knowledge because knowledge sharing affects organizations' performance and productivity (Černe et al., 2014; Kaldeen et al., 2021). As a result of this significance, the idea of sharing knowledge has received a wide attention by both professionals and academicians (Abdillah et al., 2020; Connelly et al., 2019). On the other hand, there is a newly related construct which has also received a scholarly attention in the last decade which is called knowledge hiding. It is defined "an intentional attempt by an individual to withhold or conceal knowledge that has been requested by another person" (Connelly et al., 2012). The organizational consequences of

knowledge hiding are reported as the counterproductive behavior that reduces innovation, productivity and trust (Xinyan & Xin, 2006; Xiong et al., 2021).

Although the available literature has investigated the impact of centralization as a dimension of organizational structure on the employees' organizational behavior (Ali et al., 2021; Anand & Hassan, 2019; Farooq & Sultana, 2021), yet, it has not been studied as an organization-related factor that might drive public organization employees to hide their knowledge from their colleagues. Knowing that, public organizations in Iraqi Kurdistan are mainly structured on the bases of centralization (Ali, 2018). Moreover, among the existing studies the findings seem to be mixed and general since all the dimensions of organizational structure are studies together. Furthermore, most of the studies on knowledge management are conducted in western context, Iraqi Kurdistan as an Eastern setting needs to be tested empirically to understand how global phenomenon are applied here and there.

In an attempt to enrich the existing literature, this study aims to empirically test the relationship between organizational structure (Centralization) and knowledge hiding in Kurdistan public universities. In addition, it investigates the moderation role of knowledge-oriented leadership in the relationship. The paper in hand draws on the instrument of public administration research to learn how Kurdistan public organizations which are (Ali & Sagsan, 2020; Amber et al., 2019) may have an influence on knowledge hiding behavior. In most of the public organizations, organizational structure is founded on centralization as the major form of organizational structure and it impacts on the employees' behavior (Lambert et al., 2006). On the other hand, in the line with previous studies such as (Connelly et al., 2012; Mahmoudsalehi et al., 2012) who called for more investigation about the organizational structure as an organization-related factor of knowledge hiding. Furthermore, previous study on the impact of leadership styles by (Ali & Sagsan, 2020) called for testing other positive leadership styles in moderation role to mitigate knowledge hiding. Knowledge-oriented leadership as a positive style of leading employees encourages them to express and exchange ideas, which plays a facilitating role for building knowledge. Therefore, this study is expected to provide some new insights on the organization-related factors of knowledge hiding and the method of moderating it, the research outcomes might play an excellent role in both practical and theoretical dimension. Hence, the study is expected to contribute in enriching the available literature and more specifically from

the context of Iraqi Kurdistan.

Literature review

Knowledge hiding

According to Connelly et al. (2012) knowledge hiding is a deliberate attempt by an employee to hide the requested knowledge from his/her co-worker. The existing literature categorizes knowledge hiding into three main dimensions as evasive hiding, playing dump and rationalized hiding (Connelly et al., 2012; Jha & Varkkey, 2018). Evasive hiding refers to providing inappropriate information or purposefully hiding the knowledge (Hernaus et al., 2019). In playing dump the knowledge hider behaves in a way as he does not have relevant knowledge or promises to provide an answer later. Rationalized hiding is being excused with the reasons of confidentiality of requested knowledge and relevance to certain people. Scholars have studied several antecedes that impact on knowledge hiding in public organizations. There are three categories of factors that affect knowledge hiding as individual-related, organizational factors and job-related factors (Ali, 2021). Scholars have investigated organizations related factors including bureaucracy and organizational structure in public organizations (Ali & Sagsan, 2020; Amber et al., 2019; Shah & Hashmi, 2019). Yet, there needs to be more investigating on the relationships between the attributes of bureaucracy such as formalization and centralization and knowledge hiding.

Knowledge hiding can have negative consequences for organizations and employees (Connelly & Zweig, 2015). For example, on the employees level, Connelly and Zweig (2015) found that knowledge hiding affects the creativity of knowledge seeker. According Silvi and Cuganesan (2006) there is a negative relationship between knowledge hiding and entire performance of the organization. In addition, Offergelt et al. (2019) reported that knowledge hiding has a negative impact on employees' turnover (HUYNH; NGUYEN & NGUYEN, 2022). Knowledge hiding is criticized as a harming factor for the trust between buyer and supplier relationships. Consequently, reducing trust may affect the buyer's loyalty towards a specific brand. Furthermore, knowledge hiding is critical issue when it comes to employee's creativity and job satisfaction. On the other hand, knowledge hiding has direct impact on the entire organization as an entity, for example, Connelly and Zweig (2015) reported knowledge hiding as a major challenge of organizational innovation.

furthermore, the organizational interaction will be affected due to the fact that the knowledge seeker and knowledge hider do not engage in personal cooperation.

Centralization and knowledge hiding

Organizational structure has five dimensions which are specialization, standardization, formalization, configuration and centralization (Levy & Pugh, 1969). Centralization is one of the main components in organizational structure. It refers to “the extent to which decision-making power is concentrated at the top levels of the organization” (Mahmoudsalehi et al., 2012). According to Lambert et al. (2006), there are two levels of centralization, “first the degree of input into decision-making. The second level of centralization is the degree that an employee has control and input over the tasks and order of his/her job”. The first type of centralization is referred as the degree of input into the decision making process, and the second level is known as the degree that an organizational member has over his task (Lambert et al., 2006). The higher level of these two levels represent a more centralized organization. According to Tobin (2001) centralization as a structure “refers to power and the location, division, and amount of decision-making power throughout an organization”. Decision making and communication are two main themes of centralization that may have a strong relationship with knowledge hiding.

Centralization does not encourage the employee’s participation in decision making process. It is worth to remember that decision making is a knowledge-intensive process, the more knowledge is shared the more effective decision will be made (Holsapple & Joshi, 2001). Centralization prevents employees’ engagement in the formal meetings and discussions which are constructive for exchanging information and ideas. On the other hand, centralization does not foster incorporation of larger number of employees and from different levels in the organization. This may organizationally and systematically hide the individuals’ knowledge within the same organization. In this way, centralization can be considered as a hindrance towards gathering all different ideas and views because it does not support a variety of individuals to participate in decision making, hence their knowledge will be hidden (Ouchi, 2006). Thus, participative organizational structure encourages knowledge sharing among employees by motivating employees involvement (HOANG & TRUONG, 2021). Besides, centralization may result in reduction of creative solutions because the formal routines are time-consuming and sometimes the knowledge

hider uses this excuse to avoid answering the question of a knowledge seeker (Souitaris, 2001). This called rationalized hiding of the knowledge.

Centralization is not supportive and facilitative for knowledge management because it inhibits the effective interaction and communication among the organizational members (Mahmoudsalehi et al., 2012). On the other hand a decentralized organization support the internal communication and this helps knowledge sharing (Zheng et al., 2010). This inhibition decreases the possibility of individual development and prevents problem solving opportunities.as a result of that, a centralized structure can have negative influence of KM system and cause knowledge hiding. According to Zheng et al. (2010) one of the obstacles that may cause knowledge hiding is lack of communication among organizational members. Centralization consists the restriction mechanisms of communication that reduce the opportunities of delivering new ideas. In a centralized organization, the employees have a limited autonomy to play their role and this may reduce their interest to be innovative and consequently the lack of innovation causes lack of knowledge sharing and cooperation with other colleagues (Ebdon & Franklin, 2006). In addition, in a centralized setting the employees does not have enough access to make questions and follow inquires. On the others hand, centralization seeks to have the absolute control over organizational activities and initiatives (Ghani et al., 2020). Again, knowledge seekers need a flexible organizational environment to achieve what they are looking for among their fellow knowledge holders. Hence, we can assume that:

H#1 "Centralization is positively related to knowledge hiding"

Moderating role of knowledge-oriented leadership

Originally, the theory of knowledge-oriented leadership is developed by Donate and de Pablo (2015). It is the combination of transactional and transformation leadership styles. KOL can be defined as a joint or individual attitude or action, observed or charged that stimulates some latest and the most important knowledge to be shared, created and used in such a way that brings change in the thinking and collective outcome" (Mohsenabad & Azadehdel, 2016).This leadership style is retrieved from the theory of knowledge-based view ,and according to this philosophy knowledge is the most important asset of an organization (Zack et al., 2009). The KOL is considered as one of the positive leadership styles that can influence on employees' behavior (Shamim et al., 2019). A knowledge-

oriented leader may never involve in knowledge hiding, but encourages others to share what they know. According to Ali and Sagsan (2020) KOL has three main attributes (rewarding, motivation and communication. These attributes are in the interest of knowledge sharing. The KOL leadership style cultivates some supportive behaviors among followers for example consultation, delegation, stimulation knowledge diffusion, facilitating, and mentoring. These characteristics are all in the service of organizational knowledge sharing. Knowledge-oriented leadership fosters a decentralized, collaborative environment by encouraging open knowledge sharing, continuous learning, and the empowerment of employees at all levels. Such leadership contrasts markedly with centralized systems, in which decision-making authority is confined to a few individuals and the free flow of information is restricted. As Nonaka and Takeuchi (1995) argue, the dynamic process of knowledge creation thrives in decentralized structures where social interactions facilitate the continuous exchange of tacit knowledge. Similarly, Davenport and Prusak (1998) demonstrate that effective knowledge management—an essential component of knowledge-oriented leadership—is often stymied in highly centralized organizations that limit bottom-up innovation and employee engagement.

Knowledge-oriented leadership as other positive leadership styles can play its influential role in combating organizational structures (Van Dierendonck et al., 2014). The main two obstacles in centralization were poor communication and lack of participation in decision making, both of these may increase knowledge hiding in public organizations.

First, knowledge-oriented leadership provide effective communication through the means of delivering the organizational objectives and clarifying the employee's rights (Ali, 2021). The most important point of communication is providing a timely atmosphere for employees to convey their message. For example, when an employee has a technical question, the organizational leadership has already facilitated the channel. On the other hand, one of the major tasks of knowledge-oriented leader is to pass his/her organizational vision through an effective communication (Mohsenabad & Azadehdel, 2016). In addition, according to (Donate & de Pablo, 2015) to manage the explicit knowledge leaders need exchanging ideas and the tacit knowledge should be shared through communication. These two tasks need a combination of a managerial approach which is (Transactional Leadership) and a visionary approach which is (Transformational Leadership) and of the

leadership styles are conclude in knowledge-oriented leadership. Additionally, knowledge-oriented leadership improves communication among employees to motivate them for exploring and exploiting new knowledge, based on that rewarding the novel ideas (Donate & de Pablo, 2015). Such a time of leadership style not just reducing knowledge hiding, but its communication power helps in clarifying the organizational strategy and objectives (Chang et al., 2012). Thus, KOL provides the facilities and tools of intellectual stimulation and employees empowerment in the sake of implementing new ideas and that is for more effective knowledge sharing (Rosing et al., 2011).

Second, Knowledge-oriented leadership is well-known of allowing subordinates to engage in decision making (Shamim et al., 2019). This has come from the notion of exploiting the tacit knowledge of each and every organizational member. For instance, when the organizational leadership think about a change in the way of performing an operation, the employees' opinions should be taken to consideration because they are the people who have relevant knowledge about the work. On the other hand, KOL delegates followers to make decisions based on their special conditions (Donate & de Pablo, 2015). This can eliminate the barriers that are resulted from centralization, because a knowledge-oriented leader believes in the tacit knowledge that embodied within employees. Moreover, knowledge-oriented leadership cultivates participative decision making in the roots of organization, this would not just prevent knowledge hiding but encourages knowledge sharing as an organizational culture (Liu et al., 2010). This is an indication showing that knowledge-oriented leaders try to exploit the entire organizational intellectual capital for a more participative decision making (Ali, 2021).

H#2 Knowledge-oriented leadership is negatively related to knowledge hiding, and (b) it moderates the relationship between centralization and knowledge hiding.

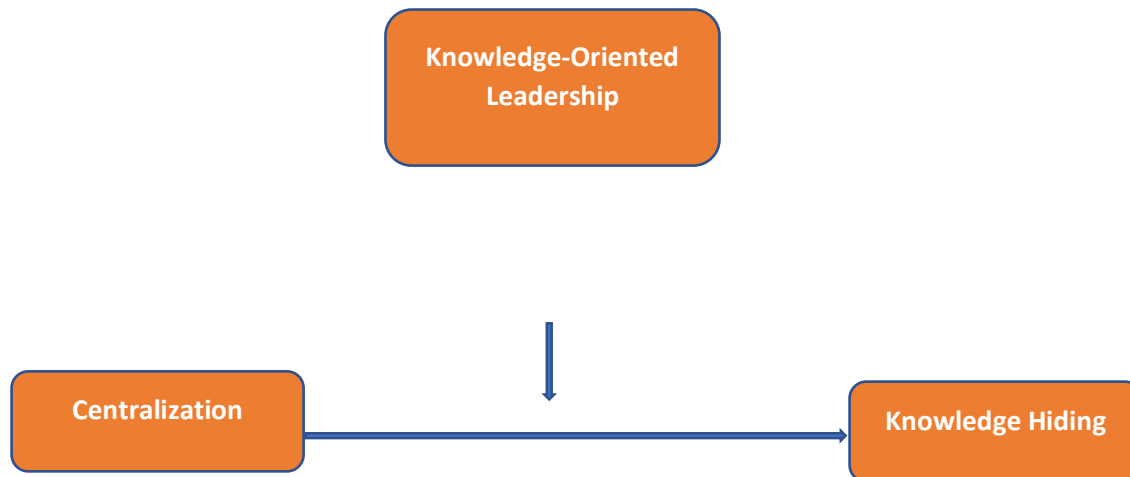


Figure 1: Conceptual Model

Research Method

Data Sampling and collection procedure

This study has been conducted in the Iraqi Kurdistan region which is a federal region within Iraq. This study is conducted among the employees of the Ministry of Higher Education and Scientific Research (MHESR). MHESR in the region manages 16 public universities and 12 private universities (Ali, 2018). The data is collected from five public universities (Raparin, Sulaimani, Koya, Soran, and Sulaimani Polytechnic). An online questionnaire was set using Google Forms and it was randomly sent to 171 employees. According to Krejcie and Morgan's (1970) table, a population of 1700 would ideally require a sample size of approximately 314 respondents—calculated using a 95% confidence level, a 5% margin of error, and an estimated response distribution of 50%—to ensure statistically reliable findings. However, given practical constraints such as limited accessibility and time, our study obtained 171 responses. While this represents a lower sample size than the ideal, a post hoc power analysis suggests that if the effect sizes are moderate to large, the available sample may still provide sufficient power to detect significant relationships. Moreover, the rigor in our sampling method and the high quality of data collected enhance the study's validity. These factors, combined with transparent acknowledgement of limitations, justify the smaller sample while still offering meaningful

insights into the population under investigation.

Measures

All measures of variables were based on a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree):

Centralization was measured using four items developed by Aiken and Hage (1968). And the items were rated on a 5-point Likert scale. Example items included the following: “How). Example items included the following: “I participate in decisions on the adoption of new policies|”. The scale’s Cronbach’s alpha

Knowledge Hiding For this variable, the 12 items of (Connelly et al., 2012) were used. The respondents were asked how will they respond if they are asked a question by another employee. A sample item was “I pretended I did not know what s/he was talking about” the Cronbach’s alpha is (0.78)

Knowledge-oriented leadership: This variable was measured with six items adopted by (Donate & de Pablo, 2015). Each two items of the six items mainly cover the attributes of motivation, communication and rewarding. A sample question is: “my leader gives support to others in exchange for their efforts”

Control Variables The employee’s age, gender, education level and managerial position are used as control variables.

Descriptive statistics

The majority of the respondents were male with 61.73% Respondents were classified according to their job occupation and qualification levels. 62% of them were administrative staff while 38% were academic staff. The largest group holds a master degree which is 46%, the second largest group holds bachelor degree with 34% and the third group holds PhD with 12% and the smallest group who holds diploma was 8%. The average years of experience were 11.8 years. The descriptive details are presented in Table 1.

Table 1

Descriptive statistics

Education	Freq.	Gender	Freq.	Years in Service	Freq.	Age	Freq.
Diploma	8.18%	Male	61.73%	Less than 6	7.5%	Under 25	1.4%
Bachelor	19.09%	Female	38.27%	7-11	63.5%	26-31	18.6%
Master	55.45%			12-15	24.4%	38-43	69.5%
PhD	17.27%			More than 15	5.6%	44-49	4.1%

Validity and Reliability Analysis

In this part, we have carried out the reliability test through Cronbach Alphas for the questionnaire items, we have also tested the validity of the questionnaire through confirmatory factor analysis (CFA). The results of Cronbach alpha state that the value for Knowledge Hiding was 0.843, Centralization was 0.810, Knowledge-oriented leadership was 0.834. Based on the Exploratory factor analysis which is suggested to test the initial validity of research variables, given in (Table 1) both Kaiser-Meyer-Olkin (KMO) sampling adequacy (0.651) is above 0.5 and Barlett's test of sphericity was significant at $P < 0.01$. Therefore, the sample of the study is adequate to propose further exploratory factor analysis because Kaiser-Meyer-Olkin (KMO) and Barlett's test of sphericity examine the sampling adequacy.

Table 1 shows the Kaiser-Meyer-Olkin (KMO) and Barlett's test results.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy..651

Bartlett's Test of Sphericity Approx. Chi-Square 75.176

df 15

Sig. .000

Through using the Cronbach Alpha, the internal reliability of each construct and item of variables is calculated. The threshold of Cronbach alpha is 0.65 (Ali, 2021). The results show that the minimum Cronbach Alpha is 0,810 and the maximum value is, 843. Therefore, the internal validity is accomplished for the items. Furthermore, the means, standard deviation and correlations of the items are presented in (Table 2).

Table 2 Correlations, Means and Standard deviations.

	Means	Standard Deviation	KH	Centralization	KOL	GENDER: female (0) male (1)	Age of participants	Years of service in the organization	The respondent degree
KH	4.7126	.72062	1						
Contc	3.9222	1.30796	.321**	1					
KOL	3.2662	1.37127	.359**	.418**	1				
GENDER:	.3174	.46685	-.050	-.068	-.026	1			
Age	36.2635	7.01049	.062	.082	.055	-.009	1		
Years of service	11.9222	6.58676	.070	.178*	.146	.079	.177*	1	
The degree	1.9102	.59946	-.018	-.093	-.184*	.081	.128	-.084	1

"Note: **Correlation significant at 0.01 level (two-tailed). * Correlation significant at 0.05 level (two-tailed)

Note: Gender (0=female, 1=Male), Cntr=Centralization, KH= knowledge hiding, KOL=Knowledge Oriented Leadership, YS=Years of service”.

Convergent validity

The convergent principle is to measures of constructs that are related to each other should be strongly correlated. On the other hand the [discriminant principle](#) measures of different constructs should not correlate highly with each other and to check whether there is enough distance among variables (Hair et al., 2010). Checking the convergent validity, Fornell and Larcker (1981). Recommend composite reliability (C.R.) value to be more than 0.5 and for the average variance extracted to be more than 0.5. Given in Table (3) the composite reliability of the variables is between 0.734 to maximum 0.872. While, average variance extracted (AVE) is minimum 0.547 and the maximum is 0.642. Therefore, the convergent validity is obtained.

Table 3: The discriminant and convergent validity.

	CR	AVE	MSV	MaxR(H)	KOL	Centr.	KH
KOL	0.872	0.642	0.663	0.862	0.834		
Centralization	0.734	0.547	0.059	0.796	-0.544	0.810	
KH	0.783	0.565	0.257	0.763	0.153	0,176†	0.843

Hypotheses testing

In this section the suggested hypothesis are tested through applying the structural equation modeling. To test the hypothesis that whether centralization and KH are positively related or not, and to test the possibility of using positive leadership styles as moderators a multiple hierarchal regression and moderation tests were conducted. "To prevent the challenging high multi-collinearity with the interaction , the variables were centered and an interaction term between centralization and KH was created" (Aiken et al., 1991). Our predictor variables are quantitative therefore we have centered them. The two main hypotheses are articulated as following:

H#1: "Centralization is positively related to knowledge hiding"

H#2: "Knowledge-oriented leadership is negatively related to knowledge hiding, and (b) it moderates the relationship between centralization and knowledge hiding"

Hypothesis 1 expected that Centralization as independent variable is positively related to knowledge hiding as dependent variable. A simple linear regression was calculated to predict dependent variable based on the independent variable. Our empirical analysis supports this hypothesis ($\beta = .177$, $p < .05$), these are the positive effects of Centralization on KH. We can say that the effect of Centralization is (.321) and its p-value (0.000) as it is shown in table 4 shows the regression analysis.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.896	1	8.896	18.988	.000 ^b
	Residual	77.307	165	.469		

Total	86.204	166			
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a. Dependent Variable: KH

b. Predictors: (Constant), Centralization

Anova test is to compare means. The above Anova table shows us that there is a statistically significant difference between the mean numbers of each and every condition means. An analysis of variance shows that the $df = (165) = 18.988$ and the achieved p-value which is $0.000 < 0.05$.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Lower Bound	Upper Bound
1	(Constant)	4.018	.168		23.935	.000	3.687	4.350
	Centralization	.177	.041	.321	4.357	.000	.097	.257

a. Dependent Variable: KH

Hypothesis 2a regarded at the effect knowledge-oriented leadership on the relationship between Centralization and KH. It is assumed that KOL moderates the relationship between centralization and KH. Table 5 demonstrates that ethical leadership negatively moderates the relationship between centralization and KH. ($\beta = -.973$, $p 0.00 < .05$). This

interaction is statistically significant and consistent with the hypothesis. The moderation interactions revealed that Centralization is positively related to knowledge hiding however KOL negatively interacts the relationship. In the plot, it explains the simple slopes of the relationship between the independent and Dependent variables in the effects of KOL which is the moderator. When KOL is high, the impact of Centralization will be low. The interaction shows the difference of knowledge hiding level with and without moderation role of KOL. The more attributes of KOL style affect the impact of Centralization and consequently it reduces KH. Thus, the H2a is confirmed.

Table 5: Model (1) of the moderation effect

Model	Coefficient	SE	t	p-value
Centralization	0.324	0.1253	3.7463	.000
KOL	0.342	0.3421	3.6453	.000
Interaction effect (Centr*KOL)	-0.973	0.3425	-0.7465	.007
Model summary	$R^2 = .25$	$F = 16.14$	$df = 321$.000
Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Centr =Centralization; KOL = Knowledge-Oriented leadership.				

Discussion

The purpose of this paper was to investigate the relationship between centralization and knowledge hiding in public organizations, and how this relationship might be moderated by knowledge-oriented leadership. The results of the study supported the assumed hypothesis and thus the paper is considered as a great additional to the existing literature as following.

First, the results revealed that centralization is positively related to knowledge hiding. Based on the findings, due to the centralization in public universities of Iraqi Kurdistan employees are not encouraged to participate in decision making and that is strong obstacle in front of employees to share their knowledge. These results are parallel with the previous study conducted by Pandey et al. (2021). On the other hand, the findings showed that lack of communication is another feature of centralization encourage employees to hide knowledge. This is undeniable fact the knowledge sharing can only take place when there is effective communication. This finding supports the existing studies conducted by Connelly and Zweig (2015). Furthermore, the centralized public universities of Kurdistan have reduced the organizational flexibility that employees are not enough free to seek the required knowledge. An explanation of that organizational control might refer to the fact that public organizations are so committed the lines of authority and old-fashioned organizational structure (Abdillah et al., 2020).

Second, the results stated that knowledge-oriented leadership moderated the relationship between centralization and knowledge hiding. The moderation mechanisms can be concluded in the leadership style's attributes. First of all, knowledge-oriented leadership practices the rewarding system to encourage communication and interaction (Ali, 2021; Mohsenabad & Azadehdel, 2016). Our results are in line with the previous studies which had claimed that KOL as appositive leadership style can affect organizational structure (Ali, 2021; Donate & de Pablo, 2015; Mohsenabad & Azadehdel, 2016). On the other hand, KOL attempts to exploit the employees tacit knowledge and that is the reason in engaging the organizational members in decision making (Shamim et al., 2019). Our findings provided the enough evidence that when an employee is motivated to share his novel idea he is less likely to hide knowledge. These results support the previous studies conducted by (Donate & de Pablo, 2015; Peng, 2013).

The results of this study align with previous research indicating that centralization promotes knowledge hiding due to restricted decision-making and limited communication (Pandey et al., 2021; Connelly & Zweig, 2015). Similar to Abdillah et al.

(2020), this study found that rigid hierarchical structures hinder knowledge access and reduce organizational flexibility. However, it extends the literature by highlighting the moderating role of knowledge-oriented leadership (KOL), supporting findings by Donate and de Pablo (2015) and Peng (2013), who emphasized leadership's role in fostering knowledge sharing. Unlike earlier studies, this research specifically contextualizes these dynamics within public universities in Iraqi Kurdistan, offering region-specific insights.

Moreover, while previous studies focused on the direct effects of centralization or leadership on knowledge behaviors, this study contributes by examining their interaction effect. It provides empirical evidence that KOL can buffer the negative impact of centralization by promoting trust, participation, and reward systems (Ali, 2021; Mohsenabad & Azadehdel, 2016). This nuanced perspective helps bridge a gap in the literature concerning leadership's role in highly structured public organizations.

Theoretical implications

Although this study is carried out in a completely different setting which is Iraqi Kurdistan, yet it can add a great input to the current literature because researches on knowledge management practices are mainly conducted in western culture. In addition, this study is conducted among public universities which are mostly centralized, most of the previous studies are carried out in private sector. This novelty is undeniable and could be considered as a foundation for further investigations. Second, to the best of knowledge, this is the first attempt to assess the moderating impact of Knowledge-oriented leadership in such a relationship.

Practical implications

Organizations need to establish an effective knowledge management system(KITTIKUNCHOTIWUT & SIRIYOTA, 2021) this is significantly correct for universities. First, this study helps public university leaders to identify the antecedents of knowledge hiding more specifically organization-related factors. Among these factors centralization as an element of organizational structure can play a role. Second, university practitioners can get benefit from this paper by learning the knowledge-oriented leadership attributes to

mitigate knowledge hiding. Furthermore, the university leaders can cultivate the foundations of this leadership style such as motivation, rewarding and communication.

Limitations and avenues for future research

First of all, this study is limited to one organization-related factor which is organizational structure, and within the organizational structure this paper has only chosen centralization. Future research may choose specialization, standardization, formalization and configuration as well. Second, other leadership styles might be testable as moderators such as charismatic, spiritual and servant leadership styles. Third, although the scope of the research was limited to public colleges, a similar methodology might be extended to private universities to evaluate the differences and similarities in two distinct settings - public and private. Other nations, particularly professors and expats working in private institutions, may be considered in future studies. Finally, in terms of knowledge qualities, this research combined both (tacit and explicit) knowledge. If each feature was studied independently, this research would offer more to the idea. The properties of tacit and explicit knowledge vary (Gourlay, 2006). Tacit knowledge is theoretically more difficult to transmit, and as a consequence, workers may hide tacit knowledge more easily than explicit knowledge. As a result, future study might focus on tacit and explicit knowledge independently.

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