THE REALITY OF KNOWLEDGE MANAGEMENT IN THE ORGANIZATION OF AGRICULTURAL EXTENSION FROM THE POINT OF VIEW OF WORKERS AND ITS RELATIONSHIP TO SOME FACTORS IN SALAH AL-DIN GOVERNORATE

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ABSTRACT

The research aimed to identify the reality of knowledge management in the organization of agricultural extension from the point of view of agricultural workers and its relationship to some factors in Salah al-Din Governorate, as well as to determine the significance of the correlation between knowledge management and each of the following independent factors studied (age, gender, academic achievement, length of service, academic specialization, job position). The research community included all employees of Salah al-Din Governorate, and their number amounted to (400) employees. A simple random sample was drawn at a rate of (40%), and its size amounted to (160) respondents. A preliminary test of the data collection tool was conducted, and to verify the stability of the research tool, Cronbach's alpha equation was used, and its value amounted to (0.911). Field data was collected by personal interview, during October and November 2024. The scale consisted of (38) paragraphs measuring the level of knowledge management, consisting of five fields: (the process of generating and diagnosing agricultural knowledge, the process of organizing and acquiring agricultural knowledge, the process of storing agricultural knowledge, the process of developing and sharing agricultural knowledge, and the process of applying agricultural knowledge). The SPSS program and some statistical methods were used to analyze the data. The research results showed that the level of knowledge management in the agricultural extension organization is average and tends to decline, i.e. it is described as weak, and that the respondents' scores ranged between (71-177) points, with an arithmetic mean of (125.96) points. The research results recommended the necessity of providing the necessary information technology to manage agricultural knowledge and training extension workers on it so that they can benefit from it in carrying out agricultural knowledge management operations in performing their

ISSN 2072-3857

extension tasks and paying attention to adopting strategies that support agricultural knowledge management within the agricultural extension.

Keywords: Knowledge management, agricultural extension, agricultural workers, Salah al-Din Governorate.

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INTRODUCTION

Facing the challenges and rapid changes in the organizational environment requires a new direction for work that responds to and keeps pace with these challenges and changes. Knowledge and its applications are among the most prominent challenges of the current century, which is called the digital century, as organizations seek to update the information of high scientific value and use it in knowledge management processes for organizations today that work to generate, distribute and apply knowledge to help make sound administrative decisions, encourage creativity and achieve strategic goals (17). As for the interest in creativity, it is represented in the organizations' keenness to add high value to their work by obtaining different creative outputs, such as introducing new products and improving the quality of operations in a way that enhances their competitive position, as creativity and the continuous presentation of innovations are the basic elements in the success of organizations at present (5). Current organizations of all kinds face many internal and external pressures and challenges that affect their survival, growth, and ability to continue, as the global system is now characterized by its rapid movement in which changes and transformations follow one another and situations change very quickly, which requires governments and administrations of various organizations to make the necessary arrangements to confront these transformations and then support their ability to adapt, survive and grow, and this ability is the basic requirement for the success of modern organizations in light of global changes, and among these organizations is the Agricultural Extension Organization (8). Organizational and administrative thought has witnessed a great and rapid development in the field of information and communications technology and the accompanying great information and knowledge development, which necessitated the need to optimally control this amount of information and

ISSN 2072-3857

knowledge in a way that can be used to serve contemporary organizations, which always necessitates the need to search for new and appropriate mechanisms through which information and knowledge can be used to benefit the organization in a way that guarantees improving the level of performance of these organizations (10). He points out that knowledge is the optimal investment of information and data by employing the skills, capabilities, and ideas of individuals to overcome global changes, that various organizations will not be strong and resilient unless they possess knowledge, and that those who provide this knowledge are the owners of real intellectual capital (7). The agricultural extension organization is one of the main pillars and one of the most important organizations in the agricultural sector, as it provides extension services to individuals in the rural community, to change their behavior for the better and raise their standard of living, by transferring agricultural information and knowledge to agricultural producers in various agricultural fields and helping them apply it for agricultural modernization (1). The study (4) indicates that knowledge and its management in the Iraqi agricultural extension apparatus have a great impact on developing the agricultural sector through its distribution and application among workers in the extension institution. The study (12) considers that knowledge in extension centers is a source of developing agricultural work activity in the areas under its jurisdiction through applying and generating correct knowledge in the field of work.

Many studies have indicated the importance of knowledge management in agricultural extension, including (11) which indicates the need for workers in the agricultural organization to realize the focus on the knowledge providers, and once they become interested in adopting knowledge, they may not only adopt it, but they, along with the network of agricultural extension workers who practice this knowledge, process it, improve it, and adapt it to their needs and local conditions. The study (13) indicates the critical success factors in implementing a knowledge management system in the agricultural organization, knowledge is a new model in management and organizations must adopt assumptions of knowledge process management patterns that work to achieve the goals of agricultural work, and it is one of the factors influencing the success of the knowledge management system in distributing and disseminating knowledge

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and applying knowledge among workers in the organization (Karim and Salman, 2016), which proved that some knowledge management processes need great attention, such as diagnosing and organizing knowledge. The study (15) indicated that knowledge process management needs great attention, such as diagnosing and organizing knowledge, identifying the defects, and treating them to ensure the success of work in the agricultural organization. The study (16) indicated that organizational culture must be available as one of the requirements for knowledge management and that the most common problems facing the application of knowledge management were the lack of support and commitment from senior management to fill the gap in knowledge management-related skills among extension workers. The study (3) indicated the need to form a specialized team to organize and document tacit knowledge allocate storage units for knowledge, including new tools and required electronic devices, and coordinate research institutions with agricultural extension organizations in transferring farmers' problems through official procedures. The study (6) indicated that the role of agricultural extension is weak through its communication role in training courses to develop farmers in growing their crops. The study (19) showed that the level of awareness of the researched extension workers of the concept of knowledge management and its importance and the level of practice of the extension organization of agricultural knowledge management processes is not at the required level, such as the process of diagnosing agricultural knowledge, the process of acquiring agricultural knowledge, the process of storing agricultural knowledge, the process of disseminating and sharing agricultural knowledge, and the process of applying agricultural knowledge. The study (21) indicated that despite the increasing importance of the agricultural sector, it does not receive sufficient research from the perspective of knowledge management, and the need to identify the areas that should be focused on to develop the agricultural organization.

Therefore, and through the above, knowledge management processes constitute the cornerstone of agricultural extension work and its performance, especially in work that requires management of agricultural information and data and a mechanism for moving it in the right direction by the organization's workers. Given the clear failure and low

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level of management of extension work in all its joints by observing the production and productivity of agriculture in Salah al-Din Governorate through its responsibility for agricultural activities therein, the question for this research comes, which is what is the level of knowledge management in the organization of agricultural extension and its relationship to some factors from the point of view of farm workers in Salah al-Din Governorate?

OBJECTIVES

1- Identify the level of knowledge management reality in the organization of agricultural extension and its relationship to some factors from the point of view of farm workers in Salah al-Din Governorate in general.

2- Determine the moral relationship between knowledge management in the organization of agricultural extension and its relationship to some factors from the point of view of farm workers in Salah al-Din Governorate and the independent factors studied, which are (age, gender, educational attainment, length of job service, academic specialization, job position).

3- Identifying the problems related to knowledge management in organizing agricultural extension and its relationship to some factors from the point of view of farm workers in Salah al-Din Governorate.

Research hypothesis

1- There is no significant correlation between knowledge management in organizing agricultural extension and its relationship to some factors from the point of view of farm workers in Salah al-Din Governorate and the studied factors.

Research Methodology The descriptive analytical approach was used in this study to verify the effect of the independent variable on the dependent variable through the field study, which aims to describe and explain in detail and comprehensively the phenomena or topics being studied, if the qualitative and quantitative data related to the phenomena studied are collected through a variety of study methods and techniques such as observation, interviews, questionnaires, content analysis, etc., and then presented in detail in the final report (18, 20), as using this approach is the most appropriate for studying the level of knowledge management in the organization of agricultural extension and its relationship to some factors from the point of view of farm workers in Salah al-Din Governorate.

MATERIALS AND METHODS

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Research Methodology

The descriptive analytical approach was used in this study to verify the effect of the independent variable on the dependent variable through the field study, which aims to describe and explain in detail and comprehensively the phenomena or topics being studied, and then they are presented in detail in the final report (Ridha et al, 2020; Twayej & Al-Taye, 2022),

Research sample

The number of workers employed in the Salah al-Din Agriculture Directorate is (1217) workers in all agricultural and non-agricultural specialties. The study community included workers from agricultural employees in the agricultural departments of Salah al-Din Governorate who are officially registered, namely (the Agriculture Directorate and its affiliated departments, the Agricultural Guidance Center, the Seed Inspection and Certification Department, the Agricultural Equipment Department, the Agricultural Research Department), and the number of its employees is (170, 70, 26, 29, 60, 45) respectively, as the number of employees included is (400) employees. A sample of (40%) was drawn, and the number of sample members was (160) employees.

Research tool

A two-part questionnaire was prepared to achieve the study objectives. The first part included the personal characteristics of the employees, which are (age, gender, educational attainment, length of service, academic specialization, and job position). The second part consisted of paragraphs on knowledge process management, which amounted to (38) paragraphs, represented by five areas, which are (the process of generating and diagnosing agricultural knowledge, the process of organizing and acquiring agricultural knowledge, the process of storing agricultural knowledge, the process of developing and sharing agricultural knowledge, and the process of applying agricultural knowledge). The validity and reliability procedures were carried out on the data collection tool, the questionnaire form, using the Cronbach's alpha equation, in October 2024, on a survey sample of (20) employees who were excluded from the research community, as the value of the reliability coefficient for the fields of the total questionnaire form reached (0.911) degrees, which is considered acceptable in scientific research, and thus the questionnaire form tool is applicable in the field, as the reliability degree exceeds 70%, and the use of the

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questionnaire form as a tool for collecting data is the most widely used and best method, as the form is described as one of the good research tools (Dashli, 129:2016) (Jamal al-Din, 66:2023), (Aboud, 53:2017), and a five-point Likert scale was used consisting of five levels according to the degree of agreement, which are (I completely agree, I agree, I somewhat agree, I disagree, I disagree at all), as the following weights were given to it (5, 4, 3, 2, 1) Respectively, with a hypothetical average of 3 degrees, and the agricultural knowledge management scale ranged from (38-190) degrees, with a hypothetical average of 133 degrees, and the SPSS program was used for statistical analysis, and some statistical methods such as range, frequencies, arithmetic mean, and percentage, and the data were collected in November and December of the year 2024.

RESULTS AND DISCUSSION

The level of knowledge management reality in the organization of agricultural extension and its relationship to some factors from the point of view of farm workers in Salah Al-Din Governorate in general.

The results showed that the level of knowledge management in the organization of agricultural extension was the scores of the respondents ranged between (71-177) degrees, with an arithmetic mean of (125.96) degrees, and a standard deviation of (25.96) degrees, according to the knowledge management level scale, the maximum score was 190 degrees, and the minimum score was 38 degrees, and it was found that the percentage of (30.62%) was in a low category, and the percentage of (44.38%) was in the medium category, and the percentage of (25.00%) was in the high category, and the knowledge management categories were divided according to the range law into three categories, as shown in Table 1.

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Table 1. Distribution of the categories of respondents according to the categories of knowledge management in organizational processes.

Knowledge Management Categories	Frequencies	%	Arithmetic Mean
Low (71-106)	49	30.62	89.98
Medium (107-142)	71	44.38	125.96
High (143-and above)	40	25.00	154.13
Total	160	%100	S.d=25.92

The results of Table 1 showed that the level of knowledge management in the agricultural extension organization through some organizational processes from the point of view of farm workers in Salah al-Din Governorate in general was average and tended to decline, for several reasons, including the need for the process of applying agricultural Knowledge in the studied departments, as its weighted average was (3.21) degrees, as well as the weakness in the process of storing agricultural knowledge, as its weighted average was (3.19) degrees, as well as weakness in the process of developing and sharing agricultural knowledge, as its weighted average was (3.21) degrees, as these processes had an impact on the level of knowledge management in agricultural departments, and on how to deal with that knowledge, disseminate it and apply it among workers, and then its clear reflection on the level of agricultural extension performance and achieving its goals, as well as the weakness of developing and sharing knowledge in advancing agricultural extension.

2- The relationship between the level of knowledge management reality in the organization of agricultural extension and its relationship with some factors from the point of view of farm workers in Salah al-Din Governorate in general and the following studied independent factors: (age, gender, educational attainment, length of job service, academic specialization, job position). The results of the research showed that the ages of workers in the agricultural departments of Salah al-Din Governorate were limited to (20-58) years, with an arithmetic average of (39) years, and that the respondents were distributed according to the educational level variable into five categories, as the highest percentage was (41.25%) within the category of the bachelor's level of education, and that the values expressing the number of years of service in the job

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were limited to (2-11) years with an arithmetic average of (16.79) years, and that the values expressing the gender of the respondents showed that (75%) were males and that the academic specialization variable showed that (30%) were in the agricultural extension specialization and that the job position occupation showed that the percentage was (83.21%) of employees in the departments studied, as shown in Table 2.

Table 2. shows the correlations between the level of agricultural knowledge management and the independent factors.

Variables	Categories	Number	%	Arithmetic mean	Standard deviation	calculated F	tabular F
Age	(20-32) ears	48	30	126.08	22.97		
	(33- 45) ears	92	57.5	121.67	27.85		
	(46- over) years	20	12.5	113.55	21.98	1.679	3.06
the total		160	100	120.433	24.266		
Gender	Male	120	75.0	124.30	23.65		
	Female	40	25.0	115.00	21.76	*2.214	1.645
the total		160	100	119.925	22.705		
Educational level	Preparatory	19	11.87	102.00	19.84		
	Institute	40	25.00	107.50	24.33		
	College	66	41.25	128.24	20.62	**	
	Masters	22	13.75	134.27	21.86	13.569	4.74
	PhD	13	8.13	143.15	30.31		
the total		160	100	121.98	23.96		
Length of service in the job	(2-11) years	92	57.5	129.39	23.43		
	(12-21) years	56	35.0	114.14	27.59		
	(22- and over) years	12	7.5	101.75	12.06	*11.259 *	4.75
the total		160	100	25.92	21.027		
Academic specialization	Agricultural Extension	48	30.0	133.21	25.94		
	Other Specializations	112	70.0	117.17	24.49	*3.644	2.326
the		160	100	125.19	25.215		

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total							
Job	Employee	133	83.13	119.19	24.49		
Location	Division Manager	17	10.62	131.06	30.47		
	Head of Department	10	6.25	143.70	24.99	**5.634	4.75
the total		160	100	121.98	25.92		

The results of Table 2 show that the correlation between the level of knowledge management in the agricultural extension organization and its relationship with some factors from the point of view of farm workers in Salah al-Din Governorate in general and the independent factors above varies in the presence of that relationship or not, as well as its strength. It is clear that there is a significant relationship between knowledge management processes and each of the factors (gender, academic achievement, length of service, academic specialization, job position), and therefore we reject the statistical hypothesis that states (there is no significant correlation between knowledge management in the agricultural extension organization and its relationship with some factors from the point of view of farm workers in Salah al-Din Governorate and the studied factors), while about the age factor, there is no significant relationship between it and the management of agricultural knowledge processes, and therefore we accept the statistical hypothesis and accept the alternative hypothesis.

3- Problems related to knowledge management in the agricultural extension organization through some organizational processes from the point of view of farm workers in Salah al-Din Governorate.

To show the agreement of the respondents on the existing problems according to the importance of each field, as follows:

The results of the study showed that the respondents' scores in the weighted mean ranged from (1.86-2.15) degrees, with an average of (1.97) degrees, with percentage weights ranging from (62.08 - 71.67%), and with a percentage weight of (65.69%), and it was found that the average of the weighted means exceeds the hypothetical mean of the study scale of (1.5) degrees, as shown in Table 3.

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Table 3. Arrangement of problems according to ranks, according to the weighted mean, and the percentage weight.

The sequence according to form	Problems	Agree	Kind of	Disagree	weighted mean	percentile weight	The sequence according to the importance
1	Weaknesses of material and human capabilities, and the lack of an organizational climate for knowledge management.	43	54	63	1.89	62.50	12
2	The lack of job stability prevents individuals from thinking and being creative in knowledge management.	30	87	43	1.92	63.96	10
3	The lack of clarity of the organizational goals of the guiding organization and the resulting low morale and creativity of knowledge management.	35	66	57	1.88	62.08	13
4	Lack of leadership supporting knowledge management.	49	59	52	1.98	66.04	8
5	Lack of financial support allocated to knowledge management.	60	43	57	2.02	67.29	4
6	The current organizational structure of the	36	70	54	1.90	62.92	11

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	organization does not allow employees freedom of opinion and diligence in knowledge management.						
7	The authoritarian leadership in the organization does not allow the use of knowledge management in administrative activities as a result of not giving an opportunity to participate in decision-making and exchange of opinions.	35	80	45	1.94	64.58	9
8	The absence of independent organizational units that supervise knowledge management.	56	63	41	2.09	69.79	2
9	The prevalence of a culture of monopolizing knowledge by employees in the extension organization.	38	86	36	2.01	67.08	5
10	Cultural and social aspects according to the values, trends, traditions, and norms prevailing in the organization stand as an obstacle to the	54	64	42	2.08	69.17	3

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	development of knowledge management among individuals in the organization.						
11	The lack of qualified human resources to carry out knowledge management.	61	62	37	2.15	71.67	1
12	The inadequacy of devices and supplies supporting knowledge management processes.	54	61	45	2.06	68.54	3
13	The pressures exerted by informal groups constitute a barrier to creativity and thinking about knowledge.	37	63	60	1.87	61.88	14
14	Commitment and keenness to laws, instructions, systems, and procedures in achieving knowledge management.	42	72	46	1.99	65.83	7
15	The lack of confidence of some managers in the organization's employees when dealing with them in the field of talking about knowledge management in daily work.	35	68	57	1.86	62.08	15

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It is concluded from Table 3 that the problems of knowledge management processes are large and agreed upon by the respondents and constitute a source of concern for the agricultural management in the agricultural departments in the governorate, and that the paragraph (the lack of qualified human resources to carry out knowledge management) came in first place in terms of the level of relative importance for the surveyed employees, as it obtained a weighted average of (2.15) degrees and a percentage weight of (71.67%), and this is due to the existence of a major problem that employees suffer from in obtaining knowledge, while the other paragraphs came in succession according to the relative importance for the surveyed employees until the paragraph (the lack of confidence of some managers in the workers in the organization when dealing with them in the field of talking about knowledge management in daily work) which came in last place in terms of the level of relative importance for the surveyed employees, as it obtained a weighted average of (1.86) degrees and a percentage weight of (62.08%), despite its coming in last place, its level of importance for the surveyed employees is high compared to the hypothetical average for the level of importance of (1.5) degrees. This may be due to the importance of providing knowledge through government outlets or introducing workers to training courses in this regard that help employees obtain it to benefit from it in their daily work. Therefore, it requires decision-makers to look at the needs of employees thoughtfully to improve agricultural production from all aspects.

CONCLUSIONS

1- It is concluded from the results of the research that 75% of the respondents are at an average and low level in managing knowledge processes in the agricultural departments affiliated with Salah al-Din Governorate, and this is an indication that agricultural knowledge management in agricultural systems faces challenges due to the lack of clarity and neglect regarding the general objectives of the performance of the "system", structural interruptions in the transfer of information, and the dynamics that operate in the agricultural aspect at different levels in agricultural extension, and these implementation barriers have hindered the ability of agricultural knowledge management to enhance innovation and development in agriculture.

2—The study concludes that agricultural knowledge management represents a modern approach to agricultural extension, especially its practical aspect. It works to achieve broad benefits for agricultural extension workers, the

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most important of which is increasing the respondents' ability to think and create.

3- The results of the study showed the existence of a significant correlation between the level of knowledge management in the agricultural extension organization through some organizational processes from the point of view of farm workers in Salah al-Din Governorate and the independent factors studied, which have a close relationship in the development of knowledge management in the agricultural extension apparatus and have a positive impact and increase the use of agricultural knowledge management, except for age, there was no correlation between it and knowledge process management.

RECOMMENDATIONS

- The researcher recommends the importance of providing the necessary means to disseminate knowledge and participate in it, by providing extension work guides for agricultural guides in the field of their jobs and tasks assigned to them.

- The necessity of practicing agricultural knowledge management processes within the extension organization in the required manner requires the leaders of the extension organization to provide the necessary information technology to manage agricultural knowledge and train extension workers on it so that they can benefit from knowledge management processes in performing their daily extension work.

- The necessity of providing material and moral incentives for extension workers to encourage them to participate with their knowledge.

REFERENCES

1-Abdel Halim, Hanan Kamal, Sohair Ismail Mohammadi Bandari, and Imad Al-Husseini, Najm, 2015, The relationship between agricultural knowledge management and the effectiveness of agricultural extension organization from the point of view of extension work leaders in some governorates of Egypt, Journal of Agricultural Research, 41, (4), p:1.

2-Aboud, Salem Mohammed, 2017, Modern Trends in the Principles of Scientific Research, 4th ed., Dar Al-Doctor for Administrative, Economic and Other Sciences, Baghdad, Iraq, p:53.

3-AIy Salam, Heba Essam El-Dein, 2019, Improving Agricultural Extension Services through Knowledge Management Practices in the Delta Region of Egypt: An Applied Study

ISSN 2072-3857

of Knowledge Management Model, Journal of Research in Agriculture and Animal Science, Volume 6, Issue 1, p:19.

4-Al-Hamdany, Majeed Hadi Salih, Hakeem Sultan abd Al-Rekibe, 2021, The electronic Management Application in the Agricultural Extension Organization in Iraq, IOP Conf. Series: Earth and Environmental Science 735 (2021) 012037, p:1.

5-Ali, Ahmed, 2012, The Concept of Information and Knowledge Management, Damascus University Journal, Volume 28, Issue 1, Syria, p:5.

6-Al-Salhi, A. T. H., 2021, EXTENSION ACTIVITIES PROVIDED TO RICE FARMERS IN RAISING THE AWARENESS FOR COMPOST MANUFACTURE IN AL-DIWANIYAH PROVINCE, Iraqi Journal of Agricultural Sciences, 52(2), pp:422-428

7-Al-Suhaimi, Zainab Abdul Rahman, 2009, Readiness of Public Organizations for Knowledge Management: An Applied Case - King Abdulaziz University in Jeddah, International Conference on Administrative Development, Towards Distinguished Performance for the Government Sector, Riyadh, Institute of Public Administration, 4(1), p:2.

8-Al-Taie, Hussein Khader, 2014, A proposed Approach to Reforming the Agricultural Extension System in Iraq, Iraqi Agricultural Research Journal, Special Issue, Volume 19, Issue 7, p:208.

9-Dashli, Kamal, 2016, Scientific Research Methodology, Hama University Publications, Faculty of Economics, Syria, P:129.

10-Ghazali, Adel, 2016, The role of knowledge management in improving the performance of the Algerian industrial organization - a field study, a doctoral thesis, Faculty of Humanities and Social Sciences, Mohamed Lamine Debaghine University, Setif 02, Algeria, p:2.

11-Hartwich, F., M. Monge Pérez, L. Ampuero Ramos and J.L Soto, 2007, Knowledge Management for Agricultural Innovation: lessons from Networking efforts in the Bolivian Agricultural Technology System, Knowledge Management for Development Journal 3(2), www.km4dev.org/journal, p:21.

12-HASKAH, S.A., M.H.S. AL-HAMDANY, A.I. KHAMEES, 2024, ROLE OF AGRICULTURAL EXTENSION IN THE IMPROVEMENT OF THE AGRICULTURE SECTOR IN IRAQ, SABRAO Journal of Breeding and Genetics 56 (2), pp: 898-905.

ISSN 2072-3857

13-Heaidari, Mahdieh, 2011, The Critical Success factors in Implementing Knowledge Management: Agricultural Organization in the Islamic Republic of Iran, British Journal of Science September, Vol. 1 (2), p:9.

14-Jamal Al-Din, Sahrawi, 2023, Scientific Research Methodology, Ibn Khaldoun University Publications, Algeria, p:66.

15-Karim, Nour Hatem, Mithal Abdul Latif Salman, 2016, The role of Agricultural Extension Agent Management of knowledge of Agricultural Innovations in Improving Field Extension Activities in the Governorates of the Central Region of Iraq, Iraqi Journal of Agricultural Sciences 47(5), p:95.

16-Khairi, Darya Muhammad, Essam Sayed Ahmed Shaheen, and Samar Gamal Shaeer, 2019, The Reality of Applying Knowledge Management in the Extension Authority in Menoufia Governorate, Menoufia Journal of Agricultural, Economic and Social Sciences, Volume (4), p:9.

17-Khalaf, A. G. and A. L. J. Al-Mashhadani, 2023, Requirements for Using Digital Agricultural Extension in Providing Extension Service from the Viewpoint of Agricultural Extension Agents, Ear. & envir. sci. 1259(1), pp:1-18.

18-Ridha, B. A., I. R. Hassuni and A. T.H. Al-Salhi, 2020, Evaluation of training courses for agricultural employees conducted by the training and rehabilitation department belonging to the extension and training of agriculture in Iraq, P. Arc. 20 (1), p: 155-162.

19- Shadia H. Fathy, El Sawy M. Anwer, Abdullah A. Ramadan, Mohamed A. Bargal, 2023, Agricultural Knowledge Management in the Agricultural Extension Organization in El-Beheira Governorate from the Viewpoint of Extension Workers. ،Journal of the Advances in Agricultural Researches (JAAR) Volume: 28 (2), p:7.

20-Tawij, S. A.H. and H. K. Al-Taiy, 2022, The reality of extension activities of farms in providing extension services to farmers in the governorates of the Middle Euphrates, Iraqi J. Agric Sci.53(6):1418-1426, p:3.

21-Tumwebaze, Rebecca P., John N. Walsh, and John Lannonb, (2024), Knowledge management in the agriculture sector: a systematic literature review, Knowledge Management Research & Practice, p:1.

ISSN 2072-3857