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ANALYSIS OF SOME EXTERNAL VARIABLES OF THE AGRICULTURAL EXTENSION SYSTEM IN IRAQ ACCORDING TO THE SWOT MODEL

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ABSTRACT

The research aimed to analyze some of the external environmental variables of the agricultural extension system in Iraq, namely (economic variables, and technological variables). To achieve the research objectives, a questionnaire was, consisting of (32) paragraphs. The research community included all agricultural extension directors, numbering (220) respondents. The research results showed that there are several opportunities in the field of economic variables, where the paragraph (the abundance of resources and requirements available to provide extension services and activities) came in first place in terms of importance or the level of approval of the respondents on it with a weighted rate of (1.85) degrees, as for the field of technological variables, there are several opportunities, as the paragraph (the emergence of digital channels and programs specialized in extension and other agricultural aspects) obtained the first rank in terms of importance or the level of approval of the respondents. with a weighted rate of (2.77) degrees, Accordingly, we recommend that the responsible authorities in the Ministry of Agriculture and the Department of Agricultural Extension and Training adopt the results of the research, exploit the available opportunities, and confront the threats as much as possible, to reform the agricultural extension system.

Keywords: economic variables, opportunities and threats, technological variables

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INTRODUCTION

The world has witnessed extensive changes during the past years due to the information revolution across various fields, including agricultural extension , agricultural extension has an important role in achieving sustainable agricultural development (Abdel-Hussein and Fayyadh, 2024) An effective agricultural extension system is essential for driving change and addressing current challenges, as it facilitates access to information, technologies (Ojo and Adebayo, 2023), and knowledge for farmers and stakeholders, And enhancing workers' administrative, organizational, and technical skills to support agricultural development and food security, Despite facing many challenges, recent research shows that digital technologies are transforming agricultural extension by improving access to timely, relevant information, The lack of effective and influential management of agricultural extension work, a lack of organizational integration, the lack of stable policies for preparing and qualifying agricultural extension and the low academic level of workers, (Bani and Hassan, 2017; Al-Zarkani, 2018), remain persistent challenges, Recent literature highlights that institutional fragmentation and weak HR policies limit the effectiveness of agricultural extension (Maredia *et al*., 2021). In many developing countries, agricultural development remains a top policy objective, The suitability of guidance work is linked to the efficiency of

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those who carry it out, that play a fundamental role in achieving the required changes, Recent studies highlight that investing in agriculture is a key strategy to reduce poverty effectively (Fan and Rue, 2020), Traditional agricultural extension is no longer adequate to meet challenges and must revise its policies and undergo organizational development (Al-Taie *et al*., 2021), it is an effective and efficient model for resolving and managing crises. Modernizing extension services via policy reforms and capacity building is vital to tackle current agricultural challenges (Kumar and Singh, 2022). A gap exists between extension goals and society due to poor adaptation to changing factors (Al-Khafaji and Al-Hiti, 2018) like economy, technology, politics, and resources (Al-Khawili, 2019). Extension systems must adopt flexible, innovative strategies to meet changing needs (Food and Agriculture Organization, 2019), and Dynamic adaptation to these changes is essential for effective extension services (Smith and Johnson, 2021). SWOT is essential for strategic planning in extension services (Garcia and Lee, 2022), SWOT analysis helps by aligning internal strengths and external opportunities and threats (Badarin and Khreis, 2023), This technique aids extension reform by analyzing factors; thus, countries like Iraq improve services and livelihoods (Al-Khawili, 2019), which are among the biggest challenges facing the agricultural extension system in Iraq (Taie *et al.*, 2021.), therefore ,Reform is a vital and ongoing effort to improve systems and capabilities through positive change (Al-Buhairi, 2011). Economic variables, Key external factors influence Iraq's agricultural extension system via local and global economic trends (Bani and Hassan, 2017), Economic indicators affect extension work positively or negatively; technology involves innovations (Al-Muhammadi and Rayhan, 2019), Energy, materials, and equipment may pose opportunities or threats (Al-Khawili, 2019), Therefore, the current research seeks to shed light on this topic by answering the following questions:

1- What is the analysis of the economic variables of the agricultural extension system in Iraq according to the SWOT model?

2- What is the analysis of technological variables of the agricultural extension system in Iraq according to the SWOT model?

Research objectives

1- Analysis of economic variables of the agricultural extension system in Iraq according to the SWOT model.

2- Analysis of technological variables of the agricultural extension system in Iraq according to the SWOT model.

MATERIALS AND METHOD

The descriptive method is considered one of the organized scientific approaches for analyzing and interpreting a specific phenomenon or problem. (Al-Jadri, 2018). Accordingly, this method is deemed appropriate for obtaining detailed data and facts about this study.

Operational Definitions of Variables: in this study, several key variables were operationally defined as follows:

1- Opportunities: External factors that the agricultural extension system in Iraq can benefit from, which are positive factors that help achieve its aims.

2- Threats: External factors that may negatively affect the performance of the agricultural extension system in Iraq.

Research Community and Sample

The research community included all Iraqi provinces except the Kurdistan Region, and a random sample of (50%) was selected from it, with (8) province, namely (Baghdad, Diyala, Wasit, Karbala, Najaf, Kirkuk, Dhi Qar and Basra), The research was conducted on all agricultural extension directors in the provinces included in the research, totaling (220) respondents.

Data collection tool: The questionnaire was adopted, it, consisting of (36) paragraphs distributed over (2) fields (Economic and Technological), each field contains (2) topic(Opportunities and Threats), and each topic has (8) paragraphs, According to a graded scale (agree to a very great extent, agree to a great extent, agree to a moderate degree, agree to a little degree, do not agree at all) and weights were given to it (0, 1, 2, 3, 4) respectively, The questionnaire preparation went through a series of stages, which are:

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1-The questionnaire was presented to a group of experts numbering (13) experts, to indicate their degree of agreement on it (Hamouda, 2023).

2- Determining the experts' agreement criterion (cutoff threshold) on the components of the questionnaire: which is (75%) (Aliyan, 2024).

3- Calculating the averages of the experts' approval degrees on the questionnaire components Estimated weights (numerical values) were given to the levels of the approval scales (agree = 2), (agree with modification = 1), (disagree = zero) (Muhammad, 2023).

4- Comparing the averages of the experts' approval degrees with the cut-off threshold (30), and (Economic and Technological) variables reached (82%) (89.5%).

5- A preliminary test of the questionnaire was conducted on 9/14/2023 on a sample of (15) respondents in Ramadi, and the Cronbach's alpha coefficient was used to measure stability which reached a value of (0.89).

6- The research data was collected during the period between (9/24/2023-6/12/2023).

RESULTS AND DISCUSSION

1- Economic variables of the agricultural extension system in Iraq

1-1 Identifying the opportunities associated with the economic variables of the agricultural extension system in Iraq: The research results showed that the researchers confirmed the existence of opportunities associated with the economic variables of the agricultural extension system in Iraq, as the weighted averages ranged between (1.60-1.85) degrees and with a percentage weight ranging between (40-46.25) degrees, and the paragraphs were arranged in descending order according to the weighted average as shown in (Table1) The table indicates that the paragraph (the abundance of resources and requirements available to provide extension services and activities) came in first place in terms of importance, and what reinforces this is that it obtained a weighted average of (1.85) degrees, and a percentage weight of (46.25) degrees, and this was indicated by a percentage of (26.8%) of the respondents with a low degree, and this may be attributed to the availability of resources and requirements that help in providing the extension service, While the paragraph (the tendency of most farmers towards investment behavior instead of consumer behavior) came in last place in terms of importance, and what strengthens this is that it obtained a weighted average of (1.59) degrees, and a percentage weight of (39.75) degrees, and this indicated a percentage of (35.5%) of the respondents within the low degree, and this may be attributed to be satisfied with consumer behavior without investment.

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Table 1. Distribution of respondents according to the available opportunities in the topic of economic variables of the agricultural extension system in Iraq

Sort by importance	Paragraphs	found to a very large extent		found to a large extent		found to a moderate extent		found to a small extent		not found		Weighted mean	Percentage weight
		numbers	%	numbers	%	numbers	%	numbers	%	numbers	%		
1	Abundance of resources and supplies available to provide extension services and activities.	35	15.9	38	17.3	47	21.4	59	26.8	41	18.6	1.85	46.25
2	The presence of a strong enabling environment that helps provide good extension activities and services.	/	/	42	19.1	108	49.1	28	12.7	42	19.1	1.68	42
3	The presence of financial grants and loans from external donors such as the Agricultural Bank facilitates the adoption of modern agricultural innovations and developments.	13	5.9	28	12.7	71	32.3	85	38.6	23	10.5	1.65	41.25
4	The presence of an agricultural initiative to support graduates from agricultural colleges to establish model agricultural projects.	19	8.6	33	15	60	27.3	66	30	42	19.1	1.64	41
5	The presence of some attempts with good economic returns such as the agricultural initiative and the Abbasid shrine, which facilitates the work of agricultural extension and achieves its aims	25	11.4	19	8.6	68	30.9	66	30	42	19.1	1.63	40.75
6	Relying on agriculture as the second source of the Iraqi economy after oil	24	10.9	30	13.6	56	25.5	60	27.3	50	22.7	1.62	40.5
7	The presence of new and economic approaches such as privatization, cost recovery and encouraging the use of such approaches.	27	12.3	19	8.6	59	26.8	71	32.2	44	20	1.60	40
8	The tendency of most farmers towards investment behavior instead of consumer behavior	19	8.6	16	7.3	74	33.6	78	35.5	33	15	1.59	39.75
	Total											1.65	41.43

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1-2 the threats associated with the economic variables of the agricultural extension system in Iraq: The results of the research showed that the researchers confirmed the existence of threats associated with the economic variables of the agricultural extension system in Iraq, as the weighted averages ranged between (1.94 -2.88) degrees and with a percentage weight ranging between (48.5-72) degrees, and the paragraphs were arranged in descending order according to the weighted average as shown in (Table2) The table indicates that the paragraph (lack of support for the local product and reliance on importing agricultural products from neighboring countries) ranked first in terms of importance or the level of approval of the respondents, and what reinforces this is that it obtained a weighted average of (2.88) degrees, and a percentage weight of (72) degrees, and this was indicated by a percentage of (40%) of the respondents within the very large degree, and a percentage of (40%) in the large degree, this is attributed to the lack of support and promotion of the national product, which leads to a large dependence on imported production, which leads to a decrease in the value of the local product in the market, while The paragraph (the increase in prices of agricultural production requirements such as seeds, fertilizers and pesticides) came in the last rank in terms of importance or the level of approval of the respondents, and what reinforces this is that it obtained a weighted average of (1.94) degrees, and a percentage weight of (48.5) degrees, and a percentage of (26.4%) of the respondents within the average degree, and this is attributed to the lack of fixed and specific controls for the mechanism of import and pricing of agricultural products such as seeds, fertilizers and pesticides. 2- Social variables.

2-Technological variables of the agricultural extension system in Iraq

2-1 Determining the opportunities associated with the technological variables of the agricultural extension system in Iraq: The results of the research showed that the researchers confirmed the existence of opportunities associated with the technological variables of the agricultural extension system in Iraq, as the weighted averages ranged between (1.96-2.77) degrees and a percentage weight ranged between (49-69.25) degrees, and the paragraphs were arranged in descending order according to the weighted average as shown in (Table3), indicates that the paragraph (the emergence of digital channels and programs specialized in extension and other agricultural aspects) ranked first in terms of importance or the level of approval of the respondents, and what reinforces this is that it obtained a weighted average of (2.77) degrees, and a percentage weight of (69.25) degrees, and a percentage of (39.09%) of the respondents to a large degree, and this may be attributed to the development and emergence of a number of programs and digital platforms specialized in agricultural extension, in addition to the presence of a large number of electronic pages that address agricultural extension topics and solve the problems of the targeted, especially common problems, which led to considering this point as one of the most important opportunities related to technological variables. While the paragraph (Research trend towards innovation to solve agricultural problems.) came in last place in terms of importance or the level of approval of the respondents, and what strengthens this is that it obtained a weighted average of (1.39) degrees, and a percentage weight of (34.75) degrees, and this indicated a percentage of (33.6%) of the respondents within the large degree, and this is attributed to the fact that the trend of research is still somewhat towards being scientific activities only regardless of the needs of the targeted people and their problems, in addition to the fact that agricultural extension still takes the linear approach, which is the process of transferring modern agricultural technologies without taking into consideration the needs of the targeted people and their problems.

3-2 Identifying the threats associated with the technological variables of the agricultural extension system: The results of the research showed that the researchers confirmed the existence of threats associated with the technological variables of the agricultural extension system in Iraq, as the weighted averages ranged between (2.62-3.94)

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degrees and with a percentage weight ranging between (65.5-87.25) degrees, and the paragraphs were arranged in descending order according to the weighted average as shown in (Table 4). The table indicates that the paragraph (using the traditional method in providing the extension service without trying to develop and modernize) came in first place in terms of importance or the level of approval of the respondents, and what reinforces this is that it obtained a weighted average of (3.49) degrees, and a percentage weight of (87.25) degrees, and a percentage of (69.1%) of the respondents within the very high degree, and this is attributed to the fact that agricultural extension still follows the traditional trend, which is the transfer of modern agricultural technologies only without taking into account the actual needs and problems suffered by the targeted, which leads to weak work effectiveness and failure to achieve the highest levels of response by the targeted, and the paragraph (weakness and scarcity of supply and provision of information and the results of new research to solve problems, which weakens the effectiveness of the extension services provided to the targeted) came in second place in terms of importance or the level of approval of the respondents, and what reinforces this is that it obtained a weighted average of (3.14) degrees, and a percentage weight of (78.5) degrees, (48.2) of the respondents were within the very large degree, and this is attributed to the weakness of coordination and cooperation with scientific and research bodies to provide the needs and actual problems of the targeted, in addition to the weakness of providing new research and scientific outcomes to solve the problems suffered by the targeted, i.e. the weakness of the link between the targeted and agricultural extension and scientific research. While the paragraph (The weakness of providing information and developments from their sources and transferring them to the target audience) came in last place in terms of importance or the level of approval of the respondents on it, and what reinforces this is that it obtained a weighted average of (2.62) degrees, and a percentage weight of (65.5) degrees, and a percentage of (44.5%) of the respondents within the large degree, and this is attributed to the lack of communication and coordination and the lack of a sufficient database to deliver this information from its sources to the extension body and then to the targeted.

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Table 2. Distribution of the respondents according to the threats in the topic of economic variables of the agricultural extension system in Iraq

Sort by importance	Paragraphs	found to a very large extent		found to a large extent		found to a moderate extent		found to a small extent		not found		Weighted mean	Percentage weight
		numbers	%	numbers	%	numbers	%	numbers	%	numbers	%		
1	Lack of support for local products and reliance on importing agricultural products from neighboring countries.	88	40	88	40	1	0.5	17	7.7	26	11.8	2.88	72
2	Lack of provision of modern agricultural supplies, equipment and technologies, which leads to weak adoption.	70	31.8	28	12.7	86	39.1	36	16.4	/	/	2.6	65
3	The production requirements available for agricultural extension are insufficient and do not cover the needs of farmers.	46	20.9	79	35.9	50	22.7	45	20.5	/	/	2.57	64.25
4	The weakness and fragmentation of agricultural holdings in the Iraqi countryside.	58	26.4	69	31.4	58	26.4	3	1.4	32	14.5	2.53	63.25
5	The clear neglect of the agricultural reality in general, which made Iraq a market for imported crops.	33	15	56	25.5	96	43.6	31	14.1	4	1.8	2.37	59.25
6	Most farmers left the agricultural profession and turned to other professions with quick financial returns.	24	10.9	100	45.5	50	22.7	15	6.8	31	14.1	2.32	58
7	Destruction of agricultural areas.	36	16.4	33	15	70	31.8	47	21.4	34	15.5	1.95	48.75
8	The increase in prices of agricultural production requirements such as seeds, fertilizers and pesticides	29	13.2	49	22.3	58	26.4	48	21.8	36	16.4	1.94	48.5
				Total								2.39	59.87

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Table 3. Distribution of the respondents according to the available opportunities in the topic of technological variables of the agricultural extension system in Iraq.

Sort by importance	Paragraphs	found to a very large extent		found to a large extent		found to a moderate extent		found to a small extent		not found		Weighted mean	Percentage weight
		numbers	%	numbers	%	numbers	%	numbers	%	numbers	%		
1	The emergence of digital channels and programs specialized in extension and other agricultural aspects.	48	21.8	86	39.09	77	35	7	3.2	2	0.9	2.77	69.25
2	Interest in ensuring that extension services reach ISO specifications.	43	19.5	99	45.0	66	30.0	1	0.5	11	5.0	2.73	68.25
3	Keeping pace with the rapid and continuous development and change in agricultural developments.	44	20.0	92	41.8	58	26.4	25	11.4	1	0.5	2.69	67.25
4	Readiness and reliability of modern agricultural information and innovations for research bodies and bodies supporting agricultural extension work	37	16.8	80	36.4	35	15.9	68	30.9	/	/	2.39	59.75
5	Diversification of agricultural extension work fields to reach new approaches such as environmental extension, sustainability, marketing extension.	67	30.5	45	20.5	37	16.8	12	5.5	59	26.8	2.22	55.5
6	Modern communication technologies play an effective role in transferring modern technologies between farmers	23	10.5	40	18.2	82	37.3	69	31.4	6	2.7	2.02	50.5
7	Achieving the quality of extension services provided to the targeted audience to meet their needs.	24	10.9	55	25.0	52	23.6	74	33.6	15	6.8	1.99	49.75
8	Research trend towards innovation to solve agricultural problems.	5	2.3	74	33.6	60	27.3	70	31.8	11	5	1.96	49
				Total								2.34	58.65

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Table 4. Distribution of the respondents according to the threats in the topic of technological variables of the agricultural extension system in Iraq

Sort by importance	Paragraphs	found to a very large extent		found to a large extent		found to a moderate extent		found to a small extent		not found		Weighted Average	Weight percentage
		Number	%	number	%	number	%	number	%	number	%		
1	Using the traditional method of providing guidance services without trying to develop .and modernize	152	69.1	43	19.5	7	3.2	18	8.2	/	/	3.49	87.25
2	Weakness and scarcity of supply and provision of information and new research results to solve problems, which weakens the effectiveness of the extension services provided to the target groups.	106	48.2	67	30.5	20	9.1	27	12.3	/	/	3.14	78.5
3	Weak coordination and direct communication between agricultural extension and research stations to keep pace with the changes that have occurred	54	24.5	98	44.5	27	12.3	41	18.6	/	/	2.75	68.75
4	Lack of interest in the content of the extension message provided to the target groups to keep pace with developments in the field of agricultural extension.	53	24.1	79	35.9	65	29.5	23	10.5	/	/	2.73	68.25
5	Lack or absence of training of agricultural extension workers on the use of information and communication technology	53	24.1	99	45	27	12.3	28	12.7	13	5.9	2.68	67
6	The emergence of systems competing with government guidance in providing guidance services, such as electronic guidance and expert systems.	28	12.7	113	51.4	55	25	24	10.5	/	/	2.65	66.25
7	The direction of many researches to improve agricultural operations rather than invent radical solutions to the problems facing rural society.	33	15.0	96	43.6	68	30.9	23	10.5	/	/	2.63	65.75
8	The weakness of providing information and developments from their sources and transferring them to the target audience.	34	15.5	98	44.5	61	27.7	25	11.4	2.19	0.9	2.62	65.5
			Total									2.83	70.90

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CONCLUSION

The study highlighted key opportunities and threats affecting agricultural extension services in both economic and technological contexts. Economically, the availability of resources and inputs was seen as the most significant opportunity, while farmers' shift toward investment behavior was considered least important. The main economic threat was reliance on imported agricultural products, whereas rising input costs ranked lowest. Technologically, the emergence of digital platforms was identified as a major opportunity, while innovation-driven research was viewed as less impactful. The most critical technological threat was the continued use of traditional extension methods, followed by weak information flow. These results underscore the need for the Ministry of Agriculture and related institutions to capitalize on the identified opportunities and address the threats through targeted strategies that enhance the effectiveness of agricultural extension services.

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CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

AUTHOR/S DECLARATION

We confirm that all Figures and Tables in the manuscript are original to us. Additionally, any Figures and images that do not belong to us have been incorporated with the required permissions for re-publication, which are included with the manuscript.

Author/s signature on Ethical Approval Statement.

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AUTHOR'S CONTRIBUTION STATEMENT

All authors contributed equally to the conception, design, data collection, analysis, interpretation of results, and preparation of the manuscript. All authors reviewed and approved the final version of the manuscript for publication.

REFERENCES

Abdel-Hussein, M. & S. O. Fayyadh. 2024. Problems facing agricultural extension service providers to face the effects of climate change in Baghdad governorate, Iraqi Journal of Market Research and Consumer Protection, 16(1): 123-134. http://dx.doi.org/10.28936/jmracpc16.1.2024.(10)

Al-Buhairi, S. M. A. 2011. Approaches to Administrative Reform, Organizational Development, Training, and Performance Evaluation, unpublished M.Sc Thesis, Arab-British Academy for Higher Education, London, United Kingdom. pp:32.

Aliyan, Sh. R. 2024. Methods of Research and Statistical Processing (Practical Guide for Beginners), 1st ed, Academic Book Center for Publishing and Distribution, Amman, Jordan.pp:45.

Al-Jadri, A, H, 2018. The Guide to Preparing and Writing Theses and Theses, 1st ed, Al-Warraq Publishing and Printing, Amman, Jordan. pp:92

Al-Khafaji, N. & S. A. Al-Hiti. 2018. Analysis of the Foundations of Public Administration: A Contemporary Perspective, Dar Al-Yazouri for Publishing and Distribution. pp:125.

Al-Khawili, M. I. A. 2019. Environmental analysis using the SWOT method for agricultural extension in Sharkia Governorate to develop a new vision, mission, and strategy for its development, Zagazig Journal of Agricultural Research, 46(5): 1707-1723.

Al-Muhammadi & S. A. Rayhan. 2019. Strategic Management and Contemporary Management, Dar Al-Yazouri for Publishing and Distribution, Amman, Jordan, Volume One. pp:209.

Al-Taie, H, K., A. A, Al-Badri & B. A. J. Reda. 2021. A proposed approach to extension in Iraq to better respond to the needs of farmers in facing their challenges, Al-Muthanna Journal of Agricultural Sciences.8(3):612-624. https://doi.10.52113/mjas04/8.3/49

Al-Zarkani, H, M. K. 2018. A proposed vision for improving agricultural extension work in

Iraqi Journal of Agricultural Sciences –2026:57(5):1566-1577
P-ISSN: 0075- 0530 /E-ISSN: 2410-0862
DOI: https://doi.org/10.36103/bbdw7213

the governorates of the southern region of Iraq, Baghdad, College of Agricultural Engineering Sciences. pp: 69-73

Badarin, A. M. & N. S. Khreis. 2023. Evaluating the performance of jordanian islamic banks using swot. Jordan Journal of Islamic Studies. 9(3): 59-81. https://doi.org/10.59759/jjis.v19i3.264.

Bani M. & A. M. Hassan. 2017. The Impact of Strategic Planning on Marketing Services, 1st ed, Zahran Publishing and Distribution House, Amman, Jordan. pp: 58.

Fan, S. & C. Rue. 2020. The role of agricultural development in poverty reduction. Development Policy Review, 38(1): 110–130. https://doi.org/10.1111/dpr.12407

Food and Agriculture Organization. 2019. International Code of Conduct for the Sustainable Use and Management of Fertilizers, Rome com. pp:56. https://openknowledge.fao.org/server/api/core/bitstreams/a8edc4fb-1614-426b-b21c-440fff19c46b/content

Garcia, M. & S. Lee. 2022. Strategic management and swot analysis in agricultural extension. Journal of Agricultural Education and Extension, 28(4):367–380. https://doi.org/10.1080/1389224X.2022.2073658

Hamouda, R. S. 2023. Educational Evaluation and Measurement (With Its Practical Applications), 1st ed, Anglo-Egyptian Library, Cairo, Egypt. pp:62.

unpublished M.Sc. Thesis, University of Kumar, R. & P. Singh. 2022. Modernizing agricultural extension services: policy reforms and organizational development. Journal of Rural Development, 41(3): 245–260. https://doi.org/10.1177/09730052221092700.

Maredia, M. K., B. Reyes & Y. Zhou. 2021. Transforming agricultural extension systems: what works and why. Global Food Security, 29, 100535. https://doi.org/10.1016/j.gfs.2021.100535

Muhammad, I. H. 2023. Clinical Examinations and Tests, 1st ed, Anglo-Egyptian Library, Cairo, Egypt. pp:21.

Ojo, T. & A. Adebayo. 2023. Impact of digital technologies in agricultural extension: a review of recent trends and innovations. Journal of Agricultural Informatics, 14(2): 15-25. https://doi.org/10.17700/jai.2023.14.2.637

Smith, L. & M. Johnson,.2021. Adapting Agricultural Extension To Environmental And Market Dynamics. Agricultural Systems, 190, pp:115. https://doi.org/10.1016/j.agsy.2021.103095

Zhou, X., & Wong, S. 2021. Determining optimal cut-off thresholds in diagnostic tests: A review and practical guidelines. Journal of Clinical Epidemiology, 134, 103-113. https://doi.org/10.1016/j.jclinepi.2021.01.004

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تحليل بعض المتغيرات الخارجية لنظام الارشاد الزراعي في العراق وفق نموذج SWOT

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المستخلص

استهدف البحث تحليل بعض متغيرات البيئة الخارجية لنظام الارشاد الزراعي في العراق وهي (المتغيرات الاقتصادية، والمتغيرات التكنلوجية) ، ولتحقيق أهداف البحث تم اعداد استمارة استبيان والمتكونة من (32) فقرة، وشمل مجتمع البحث جميع مديري الارشاد الزراعي البالغ عددهم (220) مبحوثاً واظهرت نتائج البحث بالنسبة لمجال المتغيرات الاقتصادية الى هناك عدة فرص، اذ جاءت فقرة (وفرة الموارد والمستلزمات المتاحة لتقديم الخدمات والانشطة الارشادية)، جاءت بالمرتبة الاولى من حيث الاهمية او مستوى موافقة المبحوثين عليها بمعدل موزون قدره (1.85) درجة، اما في مجال المتغيرات التكنلوجية، فناك عدة فرص، اذ ان فقرة (ظهور القنوات والبرامج الرقيمة المتخصصة بالإرشاد والجوانب الزراعية الاخرى)، حصلت على المرتبة الاولى من حيث الاهمية او مستوى موافقة المبحوثين، بمعدل موزون قدره (2.77) درجة، وعليه نوصي الجهات المسؤولة في وزارة الزراعة ودائرة الارشاد والتدريب الزراعي بتبني نتائج البحث واستغلال الفرص المتاحة والتصدي للتهديدات قدر الإمكان لإصلاح نظام الارشاد الزراعي.

الكلمات المفتاحية: المتغيرات الاقتصادية، المتغيرات التكنلوجية، الفرص والتهديدات.

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