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The role of electronic extension in disseminating agricultural technologies from the perspective of yellow corn farmers in Al-Alam District, Salah al-Din Governorate

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ABSTRACT

This research aims to identify the role of electronic extension in disseminating agricultural technologies from the perspective of maize farmers in the Salah al-Din Governorate's Al-Alam District, and to determine the role of electronic extension in each of the following areas of study: land preparation and seeding, crop management, harvesting, and marketing. The study population included all 250 yellow corn farmers in the Al-Alam district. A 40% sample was selected, resulting in 100 farmers participating in the research procedures. The role of electronic extension was measured using a questionnaire consisting of three sections. Each section had three answer options: large role, medium role, and weak role. The responses were assigned numbers (1, 2, and 3, respectively), resulting in a total score ranging from 25 to 75. Data was collected in January 2025 and subsequently analyzed using SPSS software. The results showed that the overall role of electronic extension websites was moderate, tending towards high. This suggests that yellow corn farmers use social media to learn about modern agricultural technologies. The research also indicated that educational attainment, years of agricultural experience, and ownership of agricultural machinery and equipment are significantly related to determining. The social media's role in disseminating agricultural technologies. The researchers recommended providing training courses on how to utilize social media to improve agricultural production and establishing specialized social media platforms that connect farmers and agricultural advisors.

دور الإرشاد الالكتروني في نشر التقنيات الزراعية من وجهة نظر زراع الذرة الصفراء في قضاء العلم / محافظة صلاح الدين

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الخلاصة

هدف البحث التعرف على دور الإرشاد الالكتروني في نشر التقنيات الزراعية من وجهة نظر زراع الذرة الصفراء في قضاء العلم / محافظة صلاح الدين بشكل عام وتحديد دور الإرشاد الالكتروني في كل مجال من مجالات الدراسة الاتية (تهيئة الأرض والبذار ، خدمة المحصول ، الحصاد والتسويق). كما هدف البحث معرفة تباين وجهات نظر الزراع في تحديد دور الإرشاد الالكتروني حسب المتغيرات التالية (العمر ، التحصيل الدراسي ، عدد سنوات العمل في زراعة محصول الذرة ، امتلاك المكائن والآلات ، مصادر الحصول على المعلومات). وشمل مجتمع الدراسة جميع زراع الذرة الصفراء في قضاء العلم والبالغ عددهم (250) مزارعاً ، تم انتخاب عينة بنسبة 40% ليصبح عدد المبحوثين الذين خضعوا للإجراءات البحثية (100) مزارعاً وتمَّ قياس دور الارشاد الالكتروني من خلال استمارة استبيان مكونة من ثلاث مجالات ووضع أمام كل فقرة بدائل إجابة (دور كبير ، دور متوسط ، دور ضعيف) وأعطيت الأرقام الآتية (1-2-3) على التوالي وبذلك تتراوح درجات إجابة المبحوثين الكلية ما بين (25 -75) درجة وتم جمع البيانات في شهر كانون الثاني 2025 وبعدها تم تحليل البيانات في برنامج spss ، وأظهرت النتائج ان دور مواقع الارشاد الالكتروني بشكل عام بانه متوسط يميل الى الارتفاع نستنتج من ذلك أن مزارعي الذرة الصفراء يستخدمون مواقع التواصل الاجتماعي في التعرف على التقنيات الزراعية الحديثة ، كما واظهرت نتائج البحث أن التحصيل الدراسي و سنوات الخبرة الزراعية وامتلاك المكائن والآلات الزراعية لها علاقة معنوية في تحديد دور مواقع التواصل الاجتماعي في نشر التقنيات الزراعية، واوصى الباحثين بتقديم دورات تدريبية حول كيفية الاستفادة من مواقع التواصل الاجتماعي في تحسين الإنتاج الزراعي وإنشاء منصات تواصل اجتماعي متخصصة تجمع بين المزارعين والمرشدين الزراعيين.

الكلمات المفتاحية: الارشاد الالكتروني ، زراع الذرة الصفراء ، التقنيات الزراعية.

INTRODUCTION

Communication has undergone an accelerated development throughout history, from the primitive sign or signal up to the present-day electronic devices. At each era of history, human abilities to share information and exchange these have accelerated in speed and degree, so that modern innovation has led simultaneously to a changing the way individuals relate to each other. Nowadays, communication has become an essential touchstone for scientific and economic advances as well as a critical stimulus of changes in the electronic revolution. (Wahhab, 2025) Communication, in turn, serves as a medium for transferring knowledge. It is also vital for sharing emotions, meanings, and fostering mutual understanding. This aspect has become essential for living a dignified life in contemporary society (Dogan, 2017).

From agriculture perspective, the communication plays a vital role to transfer the information and modern technology between farmers-experts; which in turn cause for enhancing the productivity and sustainable mode of agricultural development (Amin *et al*., 2021). Using agricultural media an important group with potential to help farmers in their farming practices is the media. A large number of countries all over the world seek to take advantage of the modern communication instruments that contribute to agricultural extension and development, through effecting behavioral change for their final beneficiaries using different social networks (Azouz 2016). Agriculture is an essential corner-stone for attaining food security and promoting economic growth. The productivity of agricultural crops is largely affected by the adoption of modern technologies and improved practices by farmers (Hamed & Abdullah, 2024). In the wake of digitalization, social media has emerged as an important tool for sharing agriculture-related content which is articulated to various stages of farming – soil preparation, seed selection, method and type of irrigation, fertilizing process, pest control method to planting methods and marketing (Hadid 2014) Social media platforms are advantageous as they not require any special instrumental knowledge or training for access its contents efficiently and provide consumers with fast access to information from anywhere in global world without barriers and offering real time update on development in technology along other people's updates ,

Mobile phone technology has become one of the most essential vehicles for disseminating agricultural information and it has been largely used to reach farmers adnabushah (Abdullah, 2011).

Agricultural media: A non-negotiable means to facilitate development everywhere, to promote agricultural development, media needs to be mainstreamed within agriculture policies together with economic, social and political factors. At present level of development, more dissemination efforts are required to communicate through agricultural media (Al-Fateh, 2017). In this, agricultural extension workers have to employ best practices in extension methods and processes that provides [sic]learners good learning course for developing mental and physical ability among the individuals (Abdullah, 2021). Technical and pedagogical knowledge is important if such efforts are to be successful (El-Habbal *et al*., 2015). Yellow maize is considered one of the most important strategic crops in Iraq as it has industrial applications within human and animal nutrition, as well as being a major nutrient source in the food and medications sectors. It also helps to improve food security and to foster economic growth in the agricultural industry. (Hasniya & Al-Reemawi, 2016). Strategic importance of yellow maize The strategic value of the yellow maize between agricultural crops in general is what draws attention to this research on; The social media as a tool for dissemination of working technologies to farmers Yellow Maize In Al- Alam District In Salah al-Din Governorate Since it occupies significant place and position in food and fodder security formula, and supports planting systems with a satisfactory supply of raw materials in providing imports (Shada *et al*., 2023).

Notwithstanding the tremendous improvement in communication technologies and the advent of social media which has become a strong tool for knowledge and information dissemination, adoption of modern agricultural technology among yellow maize farmers in Al-Alam District is still below expectation The inadequacy is partly attributed to the poor use of social media platforms as instruments for achieving agriculture extension services (Hameed ,2024). The lack of defined strategies for exploiting these platforms has limited their ability to enhance agricultural enterprises and productivity. Hence, it is crucial to evaluate the contribution of social media towards adoption and diffusion of farm practices among farmers .This paper is undertaken with two major objectives: first identifying the extent of what farmers benefit from these digital platforms in improving their farming activities and secondly to investigate factors influencing usage/non-usage decisions by adopting these modern technologies. The results of this study could be used to design suggestions which promote the utilization of advanced technologies in agriculture, as well as develop policies that enable electronic agricultural extension play a predominant role in providing farmers with scientific information. In the long run, however, this will also ultimately lead to sustainable agricultural growth, increased productivity and reduced knowledge-gap among farmers: a higher overall efficiency of the aggregate farming-sector as well. This study therefore tries to answer these questions:

1- Determining the role of electronic extension in disseminating agricultural technologies from the perspective of yellow corn farmers in the Al-Alam district/Salah al-Din Governorate in general?
2- Understanding the variation in the perspectives of yellow corn farmers in determining the role of electronic extension in disseminating agricultural technologies in the Al-Alam district / Salah al-Din Governorate according to the following personal factors

(age, educational attainment, and number of years working in corn cultivation, ownership of machinery and equipment, and sources of information)?

Objectives:

1- Determining the role of electronic extension in disseminating agricultural technologies from the perspective of yellow corn farmers in the Al-Alam district/Salah al-Din Governorate in general.
2- Determining the role of electronic extension in disseminating agricultural technologies from the perspective of yellow corn farmers in the Al-Alam district/Salah al-Din Governorate in each of the following study areas (land preparation and sowing, crop management, harvesting, and marketing).
3- Understanding the variation in the perspectives of yellow corn farmers in determining the role of electronic extension in disseminating agricultural technologies in the Al-Alam district / Salah al-Din Governorate according to the following personal factors (age, educational attainment, and number of years working in corn cultivation, ownership of machinery and equipment, and sources of information).

Research Hypothesis:

There are no statistically significant differences at the (0.05) level in the varying perspectives of yellow corn farmers regarding the role of electronic extension in disseminating agricultural technologies in the Al-Alam district/Salah al-Din Governorate, which may be attributed to personal factors such as age, educational attainment, number of years working in corn farming, ownership of machinery and equipment, and sources of information.

Importance of the Research:

Such a study is timely as social media is increasingly being used to spread agricultural information and facilitate the adoption of new technologies by farmers. This makes them good means for enhancing the agricultural activity and increasing the productivity of farms in general, including farmers of yellow maize in Al-Alam District. The research will also serve to determine the factors associated with access of those digital platforms, such as education level and experience in agriculture, acting as an invaluable database for decision-makers and agricultural advisors. It also helps to inform policy makers and practitioners about the potential to promote the use of electronic agricultural extension services, as well as its utilization for linking farmers with credible sources of information. Furthermore, the research presents recommending measures to avail farmers with agricultural content and contribute to sustainable agricultural development.

Operational Definitions

1- Agricultural Innov actions: These were the new equipment, methods and processes used by yellow maize farmers in Al-Alam District to improve effectiveness along different production operations like planting, crop management, harvesting and marketing.
2- Social Media: The use of social media by maize farmers is intended to gain knowledge on agricultural practices using various digital platforms including

Facebook, WhatsApp and YouTube from where farmers access information and share experiences with regard to agriculture technology.

3- Maize Farmers: These are individuals engaged in the cultivation of yellow maize as a primary source of income in the Al-Alam District. They represent the main research population to which the study instruments are administered.

Research Community and Sample:

The research population consisted of all yellow maize farmers in the Salah al-Din Governorate's Al-Alam District, who were registered under the yellow maize cultivation plan in the Al-Alam Agriculture Division. The total number of farmers was 250. The total number of respondents who underwent the research procedures was (100) farmers, as a straightforward random sample of 40% was selected.

Preparing the Questionnaire:

The questionnaire was created by looking over earlier research and academic publications consulting agricultural extension experts, and consulting experts in the field of electronic communication it was formulated to fit the study title and consisted of two main parts:

Part One: Includes a set of personal and communication factors, namely: (age, educational attainment, and number of years working in maize cultivation, ownership of machinery and equipment, and sources of information).

Part Two: The scale consists of (25) items answered using a three-point scale with answer options (major role, average role, weak role) distributed across three main fields related to The social media's role in disseminating agricultural technologies from the perspective of maize farmers, as shown in Table (1) below:

Table (1). Distribution of study questions by fields

Fields	Number of questions
Soil Preparation and Seeding	8
Crop Service	10
Harvesting and Marketing	7
Total	25 questions

Validity Measurement and Statistical Methods:

A panel of experts in field crops and agricultural extension received the initial version of the questionnaire, Ensuring both face validity and content validity was the goal, Following the required adjustments, data from a preliminary exploratory sample of 20 farmers from the research population was gathered in January 2025 to ascertain the value of validity and reliability The validity coefficient was 0.89, and the reliability coefficient, which was determined using the split-half approach, was 0.80 This made the questionnaire prepared for gathering the final data. Excel and SPSS software were used to gather, tabulate, and statistically analyze the data.

Measuring the Independent Variable:

1. Age: The farmer's age in years at the time of data collection was used to measure this variable.
2. Educational level: The following levels (illiterate, reads and writes, primary, intermediate, secondary, institute, college, higher degree) were used to measure this variable, and the corresponding weights were 1, 2, 3, 4, 5, 6, 7, 8.
3. The length of time spent working in maize cultivation: This was determined by counting the respondent's years of service up until the data collecting date.
4. Agricultural equipment ownership: This was assessed using the levels of "own" and "do not own," with corresponding weights of "2" and "1."
5. Sources of obtaining information: This variable was measured by identifying (5) sources for obtaining information and placing the following alternatives in front of each: (often, sometimes, and rarely). The weights (1, 2, and 3) were assigned respectively; thus, the level of communication ranges between 5 and 15.

Measuring the Dependent Variable:

The role of electronic extension in disseminating agricultural technologies was measured through twenty-five (25) questions, each representing information about the social media's role. Each item was provided with answer alternatives (large role, medium role, weak role) and assigned the following numbers (1-2-3), respectively. Thus, the respondents' scores on the field of land preparation and sowing ranged from 8 to 24 degrees, the field of crop service from 10 to 30 degrees, and the field of harvesting and marketing from 7 to 21 degrees. Consequently, the total score for the fields ranged between 25 and 75 degrees

RESULTS AND DISCUSSION:

The research findings indicated that the maximum score for Social media's impact in distributing agricultural innovations was 75, while the minimum score was 25, yielding an overall average of 57.74 and a standard deviation of 6.43, The law of category length and range was used to categorize farmers into three groups, as the table illustrates (table2).

According to table (2), 45% of the respondents fell into the moderate role category, with 35% falling into the major category, Consequently, the role's level of electronic extension in disseminating agricultural technologies, from the perspective of yellow corn farmers in the Al-Alam district/Salah al-Din Governorate, can be described as average, leaning toward a high role. This may be because yellow maize farmers in Al-Alam District use social media sites to learn about agricultural technologies related to cultivating maize, which reflects an increasing role of these means in disseminating agricultural knowledge. This is attributed to the availability of specialized information and ease of access to it. However, some factors, such as the lack of technical experience of farmers, may hinder the optimal use of these platforms. This result indicates the possibility of strengthening the role of agricultural extension on social media sites in various agricultural aspects this outcome is in line with the conclusions presented in (Adel Qawy et al., 2025. (fig.1)

Table (2): Distribution of farmers according to the categories of the social media's role in general

Categories	Number	Percentage	Average role	Overall average	S.D
Minor (25-42)	20	20%	38.87		
Moderate (43-60)	45	45%	55.9	57.74	43.6
Major (61and above)	35	35%	70.9		
Total	100	100%			

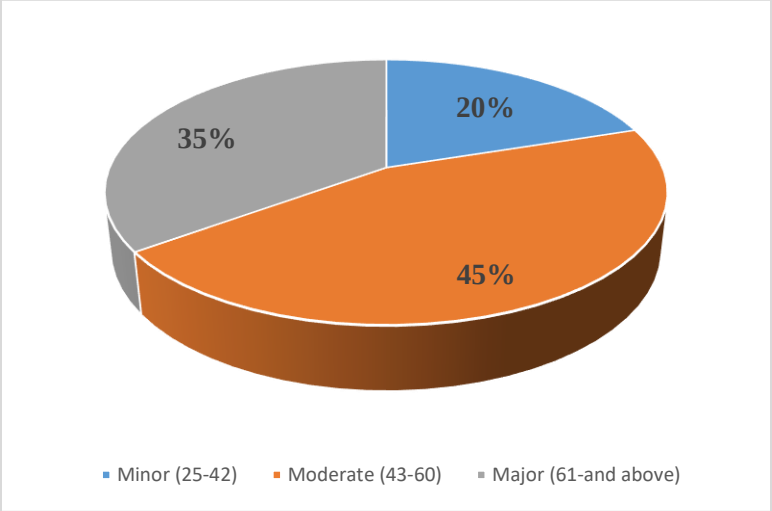

Figure 1: Categories of The social media's role sites in general

First: The role of e-extension in the field of land preparation and sowing.

The study's findings revealed that, with an overall average of 18.94 and a standard deviation of 2.53, the greatest score for social media's involvement in spreading agricultural innovations in the area of (land preparation and sowing) was 24, while the lowest score was 8. The table shows how farmers were divided into three groups using the law of category length and range. (3) beneath:

According to Table (3), 49% of respondents fell into the moderate group, and 38% fell into the significant category. Consequently, it can be said that social media platforms are becoming more and more important in spreading agricultural innovations related to seeding and land preparation. This might be because yellow maize growers in the Al-Alam area rely on social media platforms to learn about sowing and field preparation. This trend reflects an increasing role for these means in disseminating modern agricultural practices, especially with regard to improving soil fertility and choosing appropriate varieties. However, factors such as the accuracy of information and the availability of field agricultural extension may affect the extent of the effectiveness of relying on these platforms in this field. (Figure (2) shows the categories of the field of land preparation and seeding).

Table (3): Categories of the role of e-extension in the field of land preparation and sowing

Categories	Number	Percentage	Average role	Overall average	S.D
Minor (8-13)	13	13%	11.45	18.94	2.53
Moderate (14-19)	49	49%	17.54		
Major (20- and above)	38	38%	23.3		
Total	100	100%			

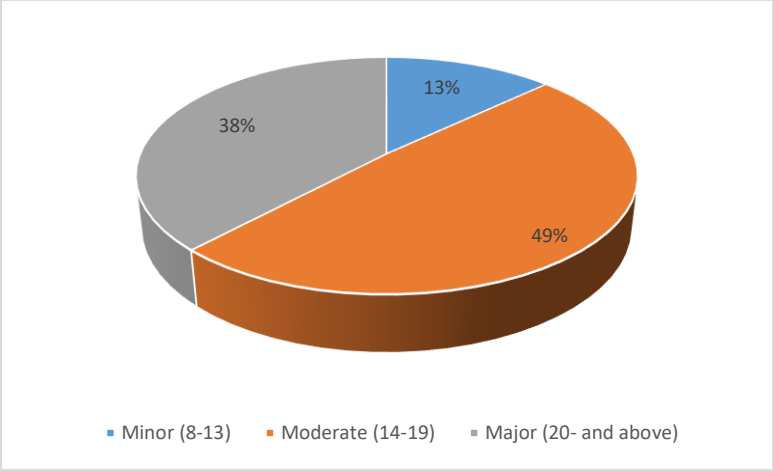

Figure 2: The social media's role sites in the field of land preparation and seeding

Second: The role of e-extension in the field of crop services (fertilization, pest control, and irrigation)

The study's findings revealed that, with an overall average of 21.99 and a standard deviation of 3.13, the highest score for social media's role in spreading agricultural technologies in the field of crop services (fertilization, pest control, irrigation) was 30. The lowest score was 10. The table shows how farmers were divided into three groups using the law of category length and range (4) lower.

According to Table (4), 50% of respondents fell into the medium group, with 32% falling into the high category. As a result, the degree to which electronic extension contributes to the spread of agricultural technology in the area of crop services may be characterized as average, with a tendency toward high. This is attributed to corn farmers in Al-Alam District using social media to obtain information about irrigation, fertilization, and pest control in corn crops. This trend reflects the growing role of these platforms in transferring knowledge about modern irrigation techniques, effective fertilization programs, and integrated pest management methods that affect corn crops, contributing to improved productivity. However, some factors may limit the optimal use of these platforms, and Figure (3) illustrates the role of electronic extension in the field of crop service.

Table (4): Categories of the role of electronic extension in the field of crop services

Categories	Number	Percentage	Average role	Overall average	S.D
Minor (10-17)	18	18%	14.95	21.99	13.3
Moderate (18 - 25)	50	50%	21.14		
Major (26-and above)	32	32%	27.3		
Total	100	100%			

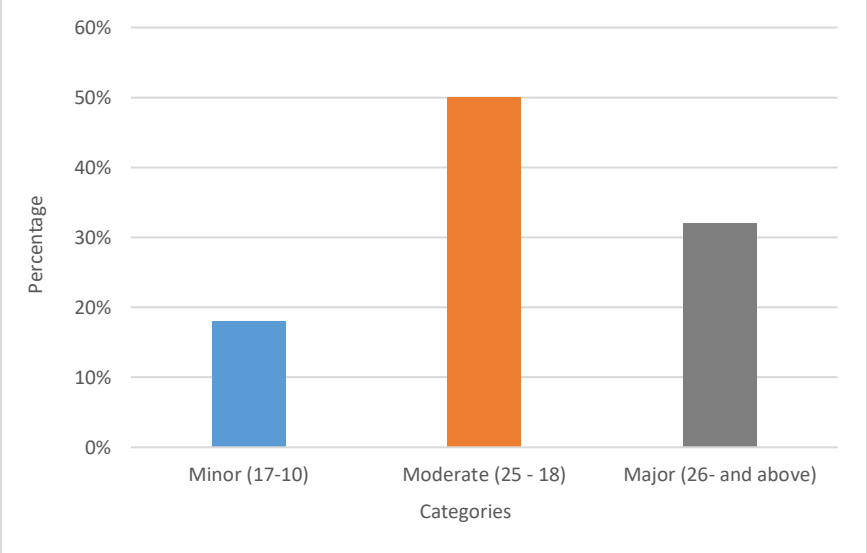

Figure 3: The role of electronic extension in crop service

Third: The role of e-extension in the field of harvesting and marketing

According to the study's findings, social media's contribution to the spread of agricultural technology in the fields of marketing and harvesting received a minimum rating of 7 and a maximum rating of 21. The standard deviation was 2.12, and the overall average was 14.85. The table shows how farmers were divided into three groups using the law of category length and range. (5) Lower. Table (5) shows that the percentage of (62%) of the respondents were in the moderate category of the role, while the minor and major categories were similar, which was (19%). Therefore, the social media's role sites in disseminating agricultural technologies in the field of harvesting and marketing can be described as moderate. This variation reflects the difference in farmers' benefit from these means in this field, as some are able to use them efficiently to improve harvesting techniques. In contrast, others face challenges in accessing information. This is perhaps attributed to the difference in levels of digital awareness and the degree of reliability of the available content. Figure (4) shows the categories of the role of e-extension in the field of harvesting and marketing.

Table (5): Categories of The role of e-extension in the field of harvesting and marketing

Categories	Number	Percentage	Average role	Overall average	S.D
Minor (7- 12)	19	19%	39.9	85.14	12.2
Moderate (13 - 18)	62	62%	98.14		
Major (19-and above)	19	19%	89.19		
Total	100	100%			

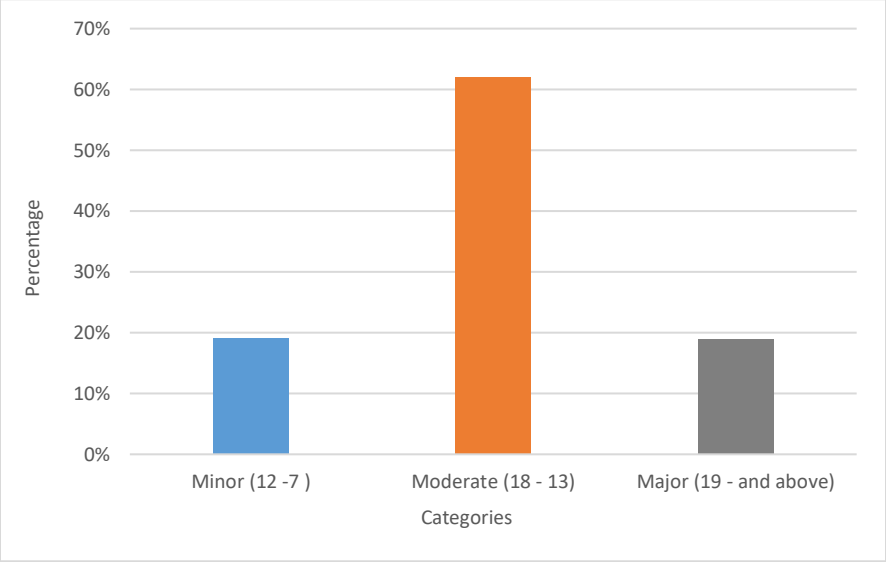

Figure 4: The role of e-extension in the field of harvesting and marketing

Age: According to the study's findings, the youngest agricultural responders were 21 years old, and the oldest were 65 as shown in Table (6), the agricultural respondents were divided into three different groups. The intermediate age category had the largest percentage (40%), as Table (6) demonstrates. The F test was used to assess the significance of the differences in yellow maize farmers' opinions about the role of social media in spreading agricultural technologies in the Salah al-Din Governorate's Al-Alam District, as well as their age. The relationship result was found to be insignificant, this means that farmers' use of social media in this context is not significantly affected by age, indicating similar levels of utilization of these media among different age groups. This may reflect the balanced adoption of social media among farmers, in addition to its ease of use by all age categories, this outcome is in line with the conclusions presented in (Istaitih, 2021).

Table (6): Age Categories

Variable name	Categories	Number	%	Average role	F- calculated value	F- value Table	Significance
Age	(21 – 36) years	25	25	60	1.019	2.995	Statistically non-significant
	(37-55) years	40	40	57			
	(56- and above) years	35	35	51			
	Total	100	100 %				

Academic achievement: The participants were classified based on the educational attainment variable into eight distinct categories, as illustrated in Table (7). Table (7) shows that the postgraduate category had the lowest percentage, 4%, while the bachelor's degree category had 20%, and the middle school education category also had 20%, The f test was used to assess the significance of the differences between the opinions of maize farmers about the role of social media in spreading agricultural technologies in the Al-Alam District of the Salah al-Din Governorate and academic achievement, and the results showed a significant relationship This implies that farmers' capacity to recognize the value of these platforms is influenced by their educational attainment Higher educated people are better equipped to look for scientific guidelines about maize growing and are more aware of online learning alternatives. Conversely, farmers with lower levels of education can find it challenging to take use of these platforms because they lack the necessary digital skills or technical information analysis abilities, This outcome is in line with the conclusions presented in (Marai *et al*., 2023).

Table (7) Distribution of respondents according to the educational achievement variable

Variable name	Categories	Number	%	Average role	F- calculated value	F-value Table	Significance
Educational level	Illiterate	10	10	35	3.187	2.995	Statistically significant
	Literate	13	13	41			
	Primary education	14	14	48			
	Middle school education	20	20	50			
	High school education	15	15	53			
	Technical institute	4	4	59			
	Bachelor's degree	20	20	60			
	Postgraduate studies	4	4	67			
	Total	100	100%				

3- Number of years of work in maize cultivation: The participants were classified based on their years of experience in maize cultivation into three distinct categories, as illustrated in Table (8). According to Table (8), the middle category had the highest proportion at 52%, while the third category had the lowest percentage at 18%. The F test was used to assess the significance of the differences in maize farmers' perspectives regarding the number of years of experience in maize cultivation and the role of social media in spreading agricultural technologies in the Al-Alam District of the Salah al-Din Governorate. The results showed a significant relationship. This suggests that farmers' actual experience growing maize influences their capacity to recognize. The function of social media in gathering agricultural information. Farmers with extensive experience may be more open to digital learning and online searches for new developments to enhance their agricultural practices and increase production, they may also be more capable of understanding and implementing scientific recommendations, this outcome is in line with the conclusions presented in (Allotey et al, 2022).

Table (8) Distribution of respondents according to the variable of years of work in agriculture

Variable name	Categories	Number	%	Average role	F-calculated value	F-value Table	Significance
Years of work in agriculture	(1-10)	30	30	40	4.111	2.995	Statistically significant
	(11-20)	52	52	53			
	(21-30)	18	18	64			
	Total	100	100%				

Machinery and Equipment Ownership: As indicated in Table (9), respondents were split into two groups based on whether or not they owned agricultural machinery and equipment. Table (9) above shows that the category of agricultural equipment owners had the highest percentage which was 52%, while the category of non-owners had the lowest percentage, 48%, To ascertain the importance of the disparities in yellow maize farmers' opinions on social media's function in spreading agricultural technology in the Al-Alam District of the Salah al-Din Governorate, and the ownership of agricultural machinery and equipment, an f-test was used, and the relationship was significant. This means that agricultural equipment ownership affects the extent to which farmers use these tools to research and apply agricultural technologies. Farmers who own agricultural machinery and equipment may be more interested in following agricultural discussions on social media to improve the efficiency of their equipment use. In contrast, farmers who do not own these tools may be less engaged in this type of electronic content due to their limited technical capabilities.

Table (9) Distribution of Respondents According to Agricultural Machinery and Equipment Ownership

Variable name	Categories	Number	%	Average role	F-calculated value	F-value Table	Significance
Owning agricultural equipment	don't own	48	48	51	3.101	2.995	Statistically significant
	own	52	52	59			
	Total	100	100%				

5- Communication with information sources: As shown in Table (10), the participants were divided into three groups according to how they interacted with information sources. Table No. (10) makes it evident that the group of poor contact had the lowest proportion, at 20%, while the category of intermediate communication with information sources had the largest percentage, at 50%. The f test was used to determine the significance of the differences in yellow maize farmers' perspectives on the role of social media in communicating with information sources and spreading agricultural technologies in Al-Alam District/Salah Al-Din Governorate. The relationship was found to be significant, this indicates that farmers who interact often with agricultural information sources, such as agricultural offices, scientific institutions, or extension agents, are more conscious of the value and function of social media platforms in acquiring agricultural knowledge about yellow maize. However, farmers who have limited or weak contact with information sources may benefit less from these means due to their reliance on traditional experiences or weak access to specialized electronic content

Table (10) Respondent distribution based on kinds of information sources they have contacted

Variable name	Categories	Number	%	Average role	F-calculated value	F-value Table	Significance
Communication with information sources	(5 - 8) Weak	20	20	49	3.109	2.995	Statistically significant
	(9 - 12) Moderate	50	50	58			
	(13-and above) High	30	30	65			
	Total	100	100%				

CONCLUSION

1. The findings indicated that the role of social media in transferring agricultural technologies is average and its effectiveness will be intermediate from maize farmers' point of view who live at Al-Alam District, Salah al-Din Governorate. We find that maize farmers utilize social media to access information on agricultural technologies

of relevance to maize production: a development which highlights the present prominence of these platform for the dissemination of agricultural knowledge.

2. The findings of the research indicate that social media in terms of maize production technology dissemination is statistically significant towards level of education, years of experience in farming and ownership of machinery use which underlines the importance at which this aspects are associated with adoption of new technology concerning maize cultivation.
3. Findings of the study indicated that social media in the dissemination of agricultural technologies to yellow maize crop differed per stage of cultivation. The relative effect of service purchases (irrigation, fertilization and pest control) was also higher than that of harvesting and marketing indicating that impact on farm households‟ needs vary according to the stage of cropping season.

RECOMMENDATIONS

1. The researchers also suggest that the agricultural extension center in Salah al-Din Governorate should hold workshops and training sessions on how to use social media to enhance agriculture production targeting people with low education levels or those who have no previous experience.
2. To optimize the social media platform, they also suggest that the General Authority for Agricultural Extension in Iraq create specialized platforms where farmers and agricultural extension agents can interface to receive credible scientific information on yellow corn cultivation cycle from land preparation to marketing.
3. The researchers recommended strengthening the role of electronic agricultural extension by the Ministry of Agriculture and the General Authority for Agricultural Extension in Iraq.

CONFLICT OF INTEREST:

The manuscript is not associated with any conflicts of interest, as declared by the authors.

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