

The importance of using social media sites and platforms by workers at the Agricultural Extension Center in Salah al-Din Governorate to disseminate and adopt modern agricultural innovations and their relationship to some factors.

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Abstract:

The study aimed to determine The importance of using social media sites and platforms by workers at the Agricultural Extension Center in Salah al-Din Governorate to disseminate and adopt modern agricultural innovations and their relationship to some factors., and then to determine the correlation between the importance and determinants of the use of social networking sites and the dissemination of modern technologies and personal factors for agricultural extension workers in the Extension Center, which are related to (age , gender, academic achievement, participation in courses related to information and communication technology, and the trend towards the use of social networking sites) .

The study included (30) respondents, and the research data was collected using a questionnaire

The results showed that the average importance of using social networking sites in the dissemination of modern technologies from the point of view of agricultural employees working in the Agricultural Extension Center is high and tends to be medium. While no significant correlation was shown with (age, gender) .

Keywords: Extension Center, Salah Al-Din , Social Communication, Dissemination of Modern Technologies, Agricultural Technologies.

Research introduction:

The Agricultural Extension System is the window from which new ideas and modern technologies flow, especially since the higher world suffers from the food shortage crisis. In order to reduce the gap of the food crisis, we must work to find modern agricultural technologies, efforts and advanced agricultural methods that keep pace with what exists in advanced science. [2]

This responsibility falls on the shoulders of the Agricultural Extension System and its employees to introduce these technologies and ensure their adoption by farmers for the purpose of using them and integrating them into their agricultural operations in order to raise agricultural production and achieve self-sufficiency. [1]

There is no doubt that the scientific and technological progress that the world is

witnessing today necessitates the development of modern teaching and learning methods by eliminating many traditional methods and pushing them to the initiative of using the maximum possible use of contemporary technology to develop teaching and learning methods in order to eliminate traditional methods and to keep pace with the rapidly changing process of development in order to prepare individuals with special characteristics to adapt to the practical and technological processes [5]

The past century has witnessed rapid leaps for humanity, perhaps the most widespread of which is the Internet, that network that has attracted the attention of the world from end to end within a few years to become the world's concern, so the importance of using social networking sites and programs came to announce the beginning of a new history called the Internet age, to create a new reality [6] and to lead unprecedented intellectual, cultural, social and economic changes. The Internet and the use of social networking sites is a versatile network. It is a communication network that connects the whole world, helps in making communication between individuals and groups to exchange professional and technical experiences, and contributes to distance education. It also doubles the possibility of benefiting from the sources of information available on the senses and obtaining research abstracts, reports and bibliographic lists of information sources available in large databases. It is a library without walls [3]

The importance of using social networking sites in the dissemination of modern agricultural technologies has become an urgent and indispensable necessity. It provides us with the service of identifying modern technologies spread in developed countries as soon as possible and without financial or human efforts, as well as providing agricultural extension workers

with the dissemination of modern agricultural technologies to a wide audience of farmers at the highest cost and as soon as possible. The importance of using social networking sites is one of the means of mass communication to spread modern technologies [7]

The importance of using social networking sites in the dissemination of modern agricultural technologies is one of the successful means of communication that connects all parts of the world to modern developments and the use of the experiences of countries using these

modern technologies and the transfer of such experiences to other countries with great problems and the use of primitive and useless means. Successful agricultural extension is the device that keeps pace with the current world of agricultural and modern technologies and spread them among farmers as soon as possible [10].

Therefore, social networking sites are of great importance and one of the factors for the success of the agricultural extension system and its workers. [4]

Given the need for human resources to develop their capabilities and skills through the opportunities available to them to learn to use technological means and methods to join the scientific and technological progress, and to carry out their responsibilities towards rural communities, and to promote extension studies and the fact that technology has become one of the most important requirements of the times because of its importance in the transfer and dissemination of ideas, information and modern technologies, and that there is a significant increase in the preparation of its users due to the lack of preparation of agricultural extension workers and their weak ability to transfer information and ideas in a way that covers the great preparation, those reasons that prompted the researcher to enhance the role of

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technology and the importance of social networking sites in agricultural extension, so there is an urgent need to employ this technology within the means of extension

Hence, the research idea came to answer the following research questions:

1. What is the importance of using social networking sites in the dissemination of modern agricultural technologies by the agricultural staff working at the Agricultural Extension Center in Salah al-Din Governorate - Iraq in general?

2. What is the descending order of the paragraphs of the use of social networking sites in the dissemination of modern agricultural technologies from the point of view of the agricultural staff working at

Significance of the research:

The importance of research can be demonstrated by the following:

1-The importance of using social networking sites by reducing the efforts of guides and reaching large numbers of farmers as soon as possible and less expensive through its ability to overcome the spatial and temporal dimension.

2- Social networking sites can be used in circumstances where the Agricultural Extension Service is unable to conduct visits and face-to-face personal meetings .

Research objectives:

This research aims as a basis to study the importance of using social networking sites in the dissemination of modern agricultural techniques from the point of view of agricultural extension workers in Salah al-Din Governorate – Iraq through the following sub-goals:

1. Identify the importance of using social networking sites in the dissemination of modern agricultural technologies from the point of view of agricultural extension

communication to achieve the objectives of extension. [8]

the Agricultural Extension Center in Salah al-Din Governorate?

3- What is the relationship between the importance of using social networking sites in the dissemination of modern agricultural technologies and the personal factors of agricultural extension workers in Salah al-Din - Iraq? Represented in (age, gender, participation in courses related to information and communication technology, the trend towards the importance of using social networking sites in the dissemination of modern technologies).

3- Gave technological progress in agricultural extension work, as it emphasizes the importance of introducing new technologies within the extension work, which ensures the success of the deployment of technologies as soon as possible.

4-The use of social networking sites increases the opportunity for direct and indirect communication between the guide and the farmer and raises the efficiency of the communication process in the dissemination of modern technologies.

workers in the extension center in Salah Al-Din Governorate

2. Arranging the paragraphs of the importance of using social networking

sites in the dissemination of modern agricultural technologies from the point of view of agricultural employees in descending order.

3- Determining the correlation between the importance of using social networking

sites in the dissemination of modern agricultural technologies and the personal factors of agricultural extension workers in the extension center (age, gender, academic achievement, courses related to

information and communication technology, and the trend towards the importance of using social networking sites).

Statistical hypotheses:

The assumptions regarding the importance of using social networking sites are as follows:

1- There is no significant correlation between the importance of using social networking sites in the dissemination of modern agricultural technologies and the age of agricultural extension workers in Salah al-Din Governorate - Iraq.

2-There is no significant correlation between the importance of using social networking sites in the dissemination of modern agricultural technologies and the guiding gender of agricultural extension workers in Salah Al-Din Governorate - Iraq.

3-There is no significant correlation between the importance of using social networking sites in the dissemination of

modern agricultural technologies and the academic achievement of agricultural extension workers in Salah al-Din Governorate - Iraq.

4-There is no significant correlation between the importance of using social networking sites in the dissemination of modern agricultural technologies and the courses related to information and communication technology for agricultural extension workers in Salah Al-Din Governorate - Iraq

5. There is no significant correlation between the importance of using social networking sites in the dissemination of modern agricultural technologies and the trend of agricultural extension workers towards the importance of using social networking sites.

Procedural Definitions:

1- Social networking sites: Defined as means of communication through which the user creates an account that can communicate through the Internet with other people electronically , to share information, ideas, opinions, means and other written, visual and audio content and files among a large number of users. Social networking sites use platforms through which modern agricultural technologies are transmitted.

2- Agricultural extension workers: They are a group of individuals who perform agricultural extension tasks and services and who have an agricultural qualification

that enables them to practice this extension work.

3- Extension Center: It is a center that includes a group of agricultural employees working in agricultural extension. Through this center, modern technologies in agriculture are identified and transferred to farmers in order to keep pace with new developments in the world as well as work to solve the problems facing farmers through this center

4-Dissemination of modern agricultural technologies: It is the process of disseminating modern agricultural

technologies among an audience and a large number of farmers through social

networking sites:

Research methods and materials

Research Methodology and Structure

In the current research, the descriptive statistical approach has been used as an appropriate statistical approach for personal and survey studies [10]. It is concerned with the scientific and accurate description of real problems and the derivation of solutions through the Research area:

The extension center in Salah al-Din Governorate was chosen as an area to conduct the study of the importance of using social networking sites in this center due to their work, which requires the use

interpretation of the numbers obtained from the data, which are expressive and express an accurate and clear interpretation on which the researcher relies in explaining the phenomena and accurately deriving scientific results. [9];

of social networking sites in the transfer of modern technologies to farmers, and due to the presence of a number of departments in which agricultural extension workers work and the lack of a study in this field.

Research Community and Sample:

The research community included all (30) employees working in agricultural

extension in the Extension Center in Salah Al-Din Governorate

Research instrument:

An exploratory visit to the agricultural departments in the Extension Center in Salah al-Din Governorate was carried out as a result of the research on (26/5/2025) through which the agricultural guides were identified and the workers practiced by the agricultural guides in the departments through conducting some meetings with a number of employees. It was found that the agricultural guides use the Internet and social networking sites to complete the extension work in the government departments. After reviewing the relevant literature, books and references and consulting those with experience in this field, a form was prepared and it consisted of two parts: -

Part I: - included a set of personal, communicative, social and economic questions that

It concerns the employees of Rashad, which is (age , the duration of the service, the duration of the use of the Internet, the participation in courses related to information technology and communications, the towards the importance of using social networking sites in the dissemination of modern agricultural technologies).

Part II: - By reviewing previous studies and research and consulting specialists in the field of the importance of using social networking sites in extension work, two areas have been identified through which the extent of the importance of electronic

guidance is measured from the point of view of workers, namely:

1-The first area: The importance of using social networking sites in the dissemination of modern technologies

The process of preparing the questionnaire went through a series of steps:

Step 1 : It included the following procedures:

1. Access to scientific sources, previous studies and all the publications and information available to the researcher related to agricultural rationalization and the use of social networking sites.
2. The researcher conducted several interviews with employees in the

agricultural departments in the center of Salah al-Din Governorate and asked some questions about the importance of using social networking sites in disseminating modern technologies to obtain the data and information required to prepare the questionnaire

Step 2 : The stage of preparing the questionnaire in its initial form:

In light of the literature on this subject, previous studies and visits by the researcher, a preliminary questionnaire was prepared to measure the importance of using social networking sites . The preliminary questionnaire included (30)

optional paragraphs, each of which represents a question in the field of importance and determinants of the use of social networking sites in the dissemination of modern agricultural techniques

Step 3: Data Collection:

After the completion of the questionnaire and the availability of

scientific conditions, it is ready to collect data 27-5-2025

Research Variables:

Measuring Independent Factors:

The independent factors included in the study were measured as follows:

1- Age: Measured by the number of years of age of the respondent at the time of data collection.

2- Gender : Measured by giving numerical values as follows: -Male(2)Female(1)

3- Academic Achievement: Graduate of Agriculture(1) Graduate of Agriculture Institute (2) Graduate of Faculty of Agriculture (3) Graduate Certificate (4);

4- Courses related to information technology: Calculated through (1 participant) , (2 non-participants)

5- Towards the importance of using social networking sites: It was measured through nine paragraphs representing workers towards electronic agricultural work, and three alternatives were placed in front of each of them (agree , neutral , disagree) and the numerical values (3,2,1) were given to the positive paragraphs and vice versa to the negative paragraphs, so the values expressing this variable are limited between (9-27).

Subordinate Factor Measurement

The importance of the use of social networking sites in the dissemination of modern technologies and the determinants of its use was measured through (30) paragraphs, each of which put in front of networking sites are limited between (1-150).

the alternatives (very important, important, medium-important, few-important, non-existent) given the values (1.2.3.4.5) respectively, and thus the values expressing the importance of using social

Statistical means

After the completion of data collection and classification, many statistical means were used to process the data and reach the research objectives, including the SPSS

statistical program, which contains many statistical methods that serve the research.[9]

Results and Discussion:

First Objective: Identify the importance of using social networking sites in the dissemination of modern agricultural technologies from the point of view of agricultural extension workers in the extension center in Salah al-Din Governorate.

The values expressing the importance of rationality from the point of view of the respondents were between (30–139) with an average of (91) degrees and a standard

deviation of (27.55). The respondents were distributed as shown in Table (1)

Table (1) shows the distribution of respondents according to the importance of rationality from the point of view of employees.

Average importance	Percentage	Number of respondents	Categories
54.42	23.34%	7	Low 30-65
84.18	36.66%	11	medium 66-102
118.58	40%	12	High 103-139
	100%	30	Total

S.d= 27.55

\bar{X} = 91

Table (1) shows that the largest percentage of the respondents is in the third category, followed by the second

category, which indicates that the importance of using social networking sites in the dissemination of agricultural

technologies from the point of view of workers is high, inclined to the average. The reason for this may be the knowledge of agricultural extension workers of the services provided by social networking

sites in short, saving time for the guide and the speed of delivering information to the farmers, in addition to the circulation and availability of information at any time.

The second objective: Arranging the paragraphs of the importance of using social networking sites in the dissemination of modern agricultural techniques from the point of view of workers in descending order.

Ranking the important paragraphs of the use of social networking sites in the dissemination of modern agricultural

techniques from the point of view of workers descending using the arithmetic mean and the results were as in Table (2).

Table (2).Arrange search paragraphs in descending order

Rank	Arithmetic Mean	Paragraphs	No
1.5	56	Keeping pace with the global development in the field of agriculture through electronic extension	1
1.5	56	The possibility of overcoming the spatial dimension	2
3	33.5	Timely delivery of agricultural information and knowledge to farmers	3
4	3.3	Speed of information flow to the farmer	4
5	3.28	Equal access to information among farmers	5
6	3.25	The ability to retain agricultural information and refer to it when needed	6
7	3.21	The possibility of re-presenting the educational material more than once and for an appropriate period	7
8.5	3.19	Reducing the costs of field guidance work	8
8.5	3.19	E-extension works to reduce the effort of extension workers	9
10.5	3.13	It works to satisfy the needs of the learner while raising the economy of education	10
10.5	3.13	Uses the Internet to increase communication between guidance departments at various levels	11
12	3.03	E-guidance works to compensate for the shortage of agricultural extension workers	12
13	3.01	Completion of guidance tasks electronically One of the techniques of work is new guidance	13
14	3	Farmers have access to information at their convenience	14

15	2.98	Uses the Internet to complete traditional counseling work	15
16.5	2.96	Contributes to breaking down the psychological barriers of the learner	16
16.5	2.96	Increasing opportunities to reach agricultural research results	17
18	2.94	Provides broad and diverse channels of communication to serve the agricultural sector	18
19	9.2	The ability of farmers to receive information without leaving their work	19
20	2.86	Communicating farmers' problems to the higher authorities to find appropriate solutions	20
21	2.82	The possibility of dealing with the rural triad through the use of electronic guidance	21
22.5	2.8	The possibility of the participation of non-governmental bodies in the extension service	22
22.5	2.8	The counselor communicated with external expertise and competencies	23
24	2.75	An easy and quick way to get solutions to problems in real time	24
25	2.73	Reducing red tape barriers in agricultural extension work	25
26	2.71	The possibility of overcoming some social norms, such as not communicating with rural women	26
27	2.67	Completion of some extension tasks after official working hours	27
28	2.65	Targeting a large number of farmers at the same time	28
29	2.63	The guide can do work in more than one agricultural area	29
28	2.44	Reduced duty cycles as a result of rapid consultation	30

Third Objective: Determine the correlation between the importance of using social networking sites in the dissemination of modern agricultural technologies and the personal factors of agricultural extension workers in the extension center

1. Age: Ammar respondents ranged between (23-59) years . They were distributed according to the range into three categories as shown in Table (8)

Table (3) shows the distribution of the sample according to age .

We know the value of r.	Medium-importance	Percentage	Number of respondents	Categories
0.21	94.42	36.66	11	(23-35) years old
Unsignificant	89.18	40%	12	(36– 48) years
	90	23.24	7	(49–more)years
		100%	30	Total

It was found from Table (3) that the percentage of respondents in thesecond category was on the rate of the importance of rationalization in thesecond category. In order to find the correlation relationship between the two variables, age and the importance of rationality, Pearson's

correlation coefficient is used. The value of the correlation coefficient was (0.21-). In order to test the significance of the relationship between the two variables, the law of (t) is used, and it has been found that it is immaterial.

2.Gender: The respondents were distributed by gender as shown in Table (4).

Table (4) shows the distribution of the sample according to Gander .

RS	Average importance	Percentage	Number of respondents	Categories
0.22 immaterial	101.71	70%	21	Male
	66	30	9	Female
		100	30	Total

It was found from Table (4) that the percentage of male respondents was on the rate of the importance of rationality in the male category. In order to find the correlation relationship between the two variables, gender and the importance of rationality, Spearman's correlation coefficient is used. The value of the correlation coefficient was (0.22). In order

to test the significance of the relationship using the law of (t), it was found that it is immaterial, while the female respondents received the lowest average of fictitiousness, and thus we accept the statistical hypothesis that (there is no significant correlation between sex and fictitiousness of rationality). This result is consistent with a study

3- Academic Achievement: - The respondents were distributed according to academic achievement as in Table (5)

Table (5) shows the distribution of respondents according to academic achievement

RS	Average importance	Percentage	Number	Categories
0.30	55	13.34%	4	Meterof cultivation
	83	26.66%	8	Institute of Agriculture
	95	43.34%	13	Faculty of Agriculture, Moshtohor
	109	16.66%	5	Graduate degree
		100	30	Total

* Indicates that the relationship is Significance at the level of (0.05)

It is clear from Table (5) that a percentage of the respondents are holders of a college degree in what was an average of a fake in the category of college and the higher degree. In order to find the correlation relationship between the two variables, you will use the Spearman correlation coefficient. It was found that the value of the correlation coefficient (0.30) . In order to test the significance of the relationship using the law (t), it has been found that it is Significance

at the level of (0.05), thus rejecting the statistical hypothesis and accepting the alternative hypothesis, which states that there is a significant correlation between academic achievement and the importance of electronic agricultural extension. This result can be explained by the fact that agricultural extension workers with a high educational qualification are more aware and experienced of the importance of using social networking sites in the dissemination of agricultural techniques.

4- Courses related to information technology: The respondents were distributed according to the answer as shown in Table (6)

Table (6) distribution of the respondents according to the courses related to information technology

RS	Average importance	Percentage	Number	Categories
0.53	107.93	54%	16	participant
	74.06	46%	14	Not involved
		100	30	Total

* * Indicates that the relationship is Significance at the level of (0.01)

It is clear from Table (6) that the percentage of the respondents is from the

category of a participant in what was on average of importance in the same

category. In order to find the correlation relationship between the two variables, Spearman correlation coefficient is used. It was found that the value of the correlation coefficient (0.53). In order to test the significance of the relationship using the law of (t), it has been found that it is Significance at the level of (0.01), thus rejecting the statistical hypothesis and accepting the alternative hypothesis, which

5- Towards the importance of social networking sites in the dissemination of

states that (there is a significant correlation between the courses related to information technology and the importance of rationalizing the social origin sites), we conclude from this the importance of training courses in preparing agricultural extension workers to use social networking sites in the dissemination of agricultural technologies

technologies: The values expressing the trend ranged between (9- 23) distributed according to the range into three categories as shown in Table (7)

Table (7) shows the distribution of respondents according to the towards the electronic agricultural rationality

We know the value of r.	Average importance	Percentage	Number	Categories	Trend
62.0* *	12.4	53.54%	16	9-15	Negatively!
	18.44	30%	9	16-22	Neutral
	25	% 16.66	5	23- 31	positive
		100	30	Total	

* * Indicates that the relationship is Significance at the level of (0.01)

It is clear from Table (7) that the percentage of the respondents in the first category is higher than the average of the figures in the third category. In order to find the correlation relationship between the two variables, you will use the Spearman correlation coefficient. It was found that the value of the correlation coefficient (0.62). In order to test the significance of the relationship using the law (t), it has been found that it is Significance at the level of (0.01), thus rejecting the statistical hypothesis and

accepting the alternative hypothesis that (there is a significant correlation between the importance of using social networking sites and the evil of agricultural techniques), we conclude from this the need to activate the role of using social networking sites among agricultural extension workers and to indicate its importance in shortening the effort and time of agricultural extension workers, and this result is consistent with the study of (Radi, 2008).

Conclusions:

1-The results showed that the importance of using social networking sites is very important and 40% falls in the third category. We conclude from this the importance of using social networking sites in spreading modern technologies to reach farmers as soon as possible and with the least effort and costs

2-The results showed that keeping pace with the current world of the use of technologies in the first place in the goal of ar

ranging paragraphs and this is very

important for the transfer of these modern technologies to increase agricultural production

3-The results showed that there is a Significance relationship between agricultural employees working in agricultural extension and the use of social networking sites. We conclude from this that agricultural employees are involved in training courses that develop their use of social networking sites effectively and efficiently.

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