▪ Vol. VIII, No. I (Winter 2023) ▪ p- ISSN: 2708-2091 ▪ e-ISSN: 2708-3586 ▪ L-ISSN: 2708-2091
▪ Citation: Iqbal, A., Salam, A., & Farooq, Q. S. (2023). Relationship between the Use of Social Media and Interpersonal Channels by Farmers. *Global Sociological Review, VIII*(I), 198-210. https://doi.org/10.31703/gsr.2023(VIII-I).19

Relationship between the Use of Social Media and Interpersonal Channels by Farmers

Ashraf Iqbal * Ahsan Salam † Qaisar Shehzad Farooq ‡

Pages: 198 – 210 **DOI:** 10.31703/gsr.2023(VIII-I).19 **URL:** http://dx.doi.org/10.31703/gsr.2023(VIII-I).19

Abstract: *The present study is to explore how farmers in Faisalabad utilise social media and interposal channels to receive agricultural knowledge. Furthermore, the study investigated farmers' individual socio-demographic traits and their subsequent link with the usage of social media and interpersonal communication channels. Data was gathered from 257 farmers of Faisalabad district. Among the social media Facebook is the most used media and among interpersonal channels Cosmopolite's character of famers was rated highest. Comparatively Interpersonal channels are mostly preferred with 56% whereas social-media occupies second position with 42%. It was also revealed that use of social media has positive relationship with age, education, land size, and annual income but negatively related with the Tehsils of the farmers. On the other hand, use of interpersonally channel was found positively related with education and agricultural status and negative relationship was found with tehsil, age, land size and annual income.*

Key Words: Farmer, Interpersonal Channels, Agriculture Knowledge, Social Media

Introduction

Agriculture as a profession is said to be both the art and science of cultivating the soil. In other words, it is growing crops and keeping livestock. It includes several steps such as the preparation of land for planting crops, cattle rearing, and in the end obtaining final products from animals and plants. These products are then delivered to markets for the use of people. In this way, agriculture has become a commercial activity. Most of the world's food and fabrics come from agricultural products, for example, Cotton, wool, and leather are the most used agricultur4al products. Agriculture is also a major source of wood for the construction of homes, furniture and paper products. The most important role of agriculture is that if is also a key source of employment all around the world. The one-third population of poor countries and 1 out of 100 people in rich countries are employed in agriculture (Roser, Employment in Agriculture, 2013).

During the recent past year decline of the agriculture-based economy can be seen in many different perspectives, such as weather conditions and land conditions. At the time of independence, agriculture had the largest share in GDP. Despite the great importance of agriculture, considerable growth in this sector is slow.

Wheat, rice, sugarcane, vegetables, and fruits are the most important agricultural products of Pakistan. Pakistan has 80 million hectares of agricultural land. There are 21 million hectares of cultivable land, but only 16 million hectares are exploited. Pakistan has 6.6 million agricultural families. They are classed as small

* Assistant Professor, Department of Mass Communication, Government College University, Faisalabad, Punjab, Pakistan.
† M.Phil. Scholar, Department of Mass Communication, Government College University, Faisalabad, Punjab, Pakistan.
‡ Ph.D, Center for Media and Communication Studies, University of Gujrat, Gujrat, Punjab, Pakistan.

Corresponding Author: Qaisar Shehzad Farooq (Ph.D, Center for Media and Communication Studies, University of Gujrat, Gujrat, Punjab, Pakistan. Email: qaisar_sha@yahoo.com)

farmers 86% of the time and large farmers 14% of the time. 2.2 percent less than 2 percent hectare, on the other hand (Jallo, 2016)

Agricultural Communication

In simple words agricultural communication can be defined as that, all types of communication that are related to agriculture are known as agricultural communication (Zumalt, 2007). This can be illustrated with the help of the Venn diagram as shown in the figure.

The use of mass media to get information about agricultural methods and new scientific techniques can efficiently increase agricultural production. Whereas the interpersonal channels are also important to get information from those sources which are in their close physical proximity or those which can be accessed without hurdles.

What makes Interpersonal communication channels more important is the fact proved through prior research that the social media do not bring about remarkable changes in human behavior unless combined with interpersonal communication, it is also notated by many communication theorists that functions of social media and Interpersonal channels are complementary (Kharmudai et al., 2018).

As agricultural development is a very important aspect of the economy of Pakistan, the Government of Pakistan has initiated many media services to be used by farmers in Pakistan.

Pakistan television corporation PTV is one of the oldest media entities owned "by the government of Pakistan. The decision of establishing television in Pakistan was initially taken by the Ayub regime. The sole purpose was to educate and bring awareness throughout the country. Television has been regarded as an effective tool for education in farming areas (Chacharr et al., 2012)

Statement of the Problem

In view of the earlier discussion, the researcher will take this problem entitled exploring the relationship between the use of social media and interpersonal channels by farmers (a case study of district Faisalabad)" in this study youtube, facebook, and whatsapp were considered as the social-media. The opinion leaders and day to day meetings were considered the interpersonal channels. This study will be based on the use of social media and interpersonal channels and their relative study.

Research Questions

RQ1: Which type of media is available for farmers?
RQ2: Which characteristics of farmers are related to their use of social media and interpersonal channels in receiving agricultural information?
RQ3: What is the preference of farmers, social media or interpersonal channels?

Hypotheses

HI: It is more likely that farmers use social media to get agricultural information.
H2: It is more likely that farmers prefer interpersonal communication to social media in acquiring information related to agriculture.
H3: The use of social media and interpersonal channels by the farmers in receiving information is related to each of their age, education, farm size, annual income, Cosmo-politeness.

Theoretical Framework

The theoretical framework provides an insight into the theory applied to the research study. Following is a brief description of these theories.

Diffusion of Innovation

The theory of the diffusion of innovation defines the process through which innovation gets embraced. This philosophy popularized the terms "innovation" and "innovation." This hypothesis, created by EM Rogers in 1962, is regarded as one of the oldest in the social sciences. It began with an explanation of how an innovation, concept, deed, or product spreads swiftly among the people and is embraced by a certain population over time (BAN, 1968).

People that aspire to be inventive as soon as feasible are those who fall under this category. They are more daring and focused on fresh ideas. These folks enjoy taking risks and are frequently the first to come up with innovative ideas. To appeal to this demographic, very little effort is required.

Those who seek opinion leaders are early adopters. They relish the chance to switch leadership roles and grips. They are already in command of the need to edit and, as a result, are quite receptive to new ideas. The introduction of a fresh concept is the basis for recruiting this demographic. They don't need evidence to persuade you to reconsider.

Early Majority - These people are not usually leaders, but they are the first to accept new ideas in advance of the general public. They frequently want proof that the idea works before they are willing to accept it. Stories of victory and achievement, as well as "evidence of the value of invention," are among the strategies used to appeal to this demographic.

Late majority - these people are crazy about change, and will only adopt innovation after trying by the majority. Strategies to appeal to this population include information on how many others have tried and successfully adopted this invention.

Backward - These people are bound by tradition and are very conservative by nature. They are very skeptical about every change and new ideas and are the hardest group to convince. Strategies to appeal to this population include "statistical data, fear appeals, and the demands of people from other adoption groups." (Aderibige, A. 1990)

Innovative research was spread to farmers who adopted hybrid seed work. This theory describes a complex process of communication (Shearon A. Lowery, Melvin L. DeFleur, 1995). This view is even more relevant to farmers' use of social media and mutual channels.

The Opinion Leaders

Keeping in mind the two-way flow of communication theory, a research by Robert Merton revealed that opinion leadership is not a universal quality of a person, but is restricted to a few clear concerns. Individuals who serve as opinion leaders on one subject cannot be deemed influential, nor will opinion leaders examine another sort of problem. Robert classified public opinion leaders into two groups.

- Monomorphic
- Polymorphic

Monomorphic is a type of opinion leader who leads people on one type of issue but on the other type of issues he himself is a follower. A polymorphic opinion leader is defined as a broad-spectrum opinion leader (Mark Balnaves, Stephanie Hemelryk Donald, Brian Shoesmith, 2009).

Later on, a study directed by Elhu Katz further investigated the personality traits of opinion leaders. This research further proved that the earlier claims of personal influence are more noteworthy in decision making as compared to mass media (Katz, E. 1957). It is also noted that opinion leaders are equally distributed among the social, economic, and educational levels within their community. But it is important to note that Katz and Lazars Feld did not identify any meticulous personality traits amongst opinion leaders.

Public opinion leaders are also stated to have crucial roles in their community, making them uniquely qualified for their specialised jobs. They are generally a group of people. Aside from that, he had relationships with the media and had suitable information delivered to him outside of his circle or group.

Research further suggested that fundamentally the opinion leaders help then- people to understand media messages. Opinion leaders also act *as* a foundation for social pressure in the direction of a specific choice and as a foundation of social support to reinforce that choice once it has been made. (Hornik, 2006). Lazarsfeld and his associates listed the following personality characteristics of personal contacts.

Non-Purposive or Casualness

This characteristic is characterised as the requirement for a cause to modify one's political statement on television or in any other medium, but political debate can only be a 'pop-up'. People are less inclined to prepare for their own defence in this circumstance. They are more likely to be influenced and more likely to be receptive to discourse.

Flexibility to Counter Resistance

In a conversation, there is always an opportunity to counter any resistance. There is always the possibility of counter-arguments in debates.

Trust

Personal interactions generate greater trust than media. People who mix are better able to study body language and speech movements to determine the honesty of the person in question. Such messages are not available in newspapers or on the radio.

Persuasion without Conviction

The primary goal of formal media is to influence or alter people's minds. In private chats, friendly and familial persuasion can occasionally lead to action without jeopardising comprehension of difficulties.

Agricultural information has typically been

suppressed through the use of media such as newspapers, television, magazines, as well as social media and interpersonal channels. This study's theoretical framework includes the theory of use and satisfaction, the spread of the theory of innovation, and the two-step flow of the theory of media reliance and the hypothesis of knowledge difference Adekunle, A. A. (2002).

According to the philosophy of use and pleasure, media users do not participate passively but actively in media choosing (Peter J. Fourie, 2007). This idea has been used to the analysis of several media types such as television, radio, humour, and cinema. While the two-step communication flow describes how communication moves from one person to another. The method of communicating with the media begins with the voters, who get the message directly, and then these individuals reciprocate by conveying the message to the less engaged parts of society. The two-step flow name was chosen because media messages are not delivered directly to the public, but rather through intermediaries:

i. The mass media influences certain individuals.
ii. These individuals personally influence others.

It suggests the interpersonal channels for communication. Thus, these theories and concepts help researchers understand the use of mass media and interpersonal channels for agricultural production.

All these theories discussed above provide clear and useful insight in to understand the theoretical foundations of this research.

This study is a comparison between the use of social media and interpersonal communication channels by farmers in Faisalabad. Thus, a review of the literature will provide a clear insight in to the study. The literature review chapter of this study provides the current status of the Use of Social-media and Interpersonal channels used by farmers.

Farmers' daily activities include the use of social media and interpersonal channels. Agriculture has been transformed by the modern era of technology and communication. Technological advancements and new abilities are pointless unless they are transferred to the appropriate clients. Communication is more than just conveying information from one person to the next; it is also a vital instrument for development. Communication is a tool for supporting and motivating individuals to work together on development projects. This method of communication is referred to as developmental communication.

Communication for development lays in the fact that the use of communication which puts it further for development (Rogers E. M., Diffusion of Innovation, 2003). Communication as a basic human need is being used for development since ancient times. The use of mass media for communication is considered the best and most efficient source of information. Mass media is used to circulate knowledge, skills and other valuable information to the masses. On the other hand, interpersonal sources are also used as valuable tools (Chaudhary, 2011).

Social media in its most basic forms that is Facebook, YouTube, and WhatsApp convey messages to a large segment of the farming community. Where social media cannot reach or become less effective, interpersonal sources are used. Interpersonal communication sources are fundamental to bring real change, especially in rural areas. Social media cannot supplant interpersonal sources when they add authority, effectiveness and credibility to messages (Miriam & Awili 2016).

Engaging a large number of addressees for disseminating agricultural information is one of the great qualities of mass media. Mass media channels are proficient to transfer messages containing agricultural information at a large scale to the masses. In developing countries, rural areas are economically dependent on agricultural products and proper use of mass media can contribute to their development in a positive way (Fiskani Ngwira, 2018).

In this age of globalization, information has a critical role in the process of development. With globalization and rapid development in agricultural technologies over the past decades, a new concept of the global economy has emerged. Global economies are powered by technologies and boosted by rapid sources of information.

The use of different mediums to get information has a central role in our modem life. To be successful in farming is evaluated based on the amount and quality of agricultural productions. To increase agricultural production requires gaining, processing, and evaluating information about policies, markets, new methods, new technologies, and innovations. That is the reason usage of mass media and use of interpersonal channels is very important in the lives of farmers. Market trends disseminate through media, and Participation of farmers in market-related activities

is very necessary for development and progress. (Poole, 2017)

The use of communication for development is known as development support communication, which is described as "the use of communication for development." Communication for Development Support The DSC strategy entails using suitable communication tools and procedures in a systematic manner to promote people's engagement in development. For the public to contribute toward the goals of sustainable development, communication at all levels will be crucial (Rashmi Luthere, 2009).

Farmer's Need Information

According to Campbell (1992), the agricultural community need knowledge in order to make meaningful and productive use of productive factors such as land, labour, and capital resources. Of course, information is critical in agricultural output. Farmers want knowledge if they can obtain it about technology, climate, and weather difficulties through media and interpersonal channels in order to obtain the best seeds for their crops. This information is being used solely to provide them with basic facts that will better prepare them for their aims. (Brown & Collins, 1978).

One of the most significant and effective ways to obtain information is through the use of mass media and interpersonal channels. Farmers utilise an average of 6.2 hours of media per week to cover their information needs, while almost 25% of farmers use an additional 10 hours of media per week. (Bachhav, 2012).

Thus, information needs are as important as the basic needs in life (Herrman, 2010). Farmers use mass media and interpersonal sources of communication to seek relevant information. (Bachhav, 2012)

The right information comes from the right use of reliable sources of information. The mass media such as television radio and agricultural magazines and interpersonal channels are reliable sources of communication to get the right information.

While talking about the use of social media there are a lot of media that come under the category of social media such as facebook, youtube, whatsapp, internet, mobile phones, blogs etc., but the most conventional and easily available social media are youtube and facebook.

The flow of agricultural information will always remain the most important aspect of the development in the field of agriculture. There are several types of media channels available with a wide range of information. Although communication channels and sources are rapidly changing with die passage of time but still mass media in different forms is mostly the preferred source of information for farmers especially in developing countries where agriculture is still based on traditional Methods of farming. Mass media usage patterns can be in various forms influenced by variations in socio-economic characteristics of farmers (Benard Ronald, G. F. 2015).

A study shows that Radio and print media is the most used and preferred media in rural farming communities. Major socio-economic factors that are influential are low literacy rates, small land size and limited experience in agriculture. Whereas younger farmers reported that they mostly prefer television (Singh, 2014).

Research on the importance of time and information availability said that timely and relevant information is very helpful for farmers. They make many important decisions based on available information. Farmers use mass media to get information and they also communicate with one another's to exchange information and valuable knowledge. In remote rural areas, farmers prefer to read magazines and newspapers to get information about agriculture (Sreeramulu, 2016).

In rural areas of Nigeria research had found that Television was said to be most used among mass media by river area farmers. Its percentage usage was 90% which was the highest use media by the farming community of the areas of river state, Nigeria (Ani A., 2015).

There is another aspect of the use of mass media by farmers that is entertainment. Farmers found mass media especially television broadcasts about agriculture as the most useful source for information and entertainment (Dr. Dararcey, 2017).

Mass media especially television and radio are found the most effective tools of information used by farmers in rural areas. Further investigation revealed that agricultural messages transmitted via mass media increases, the knowledge level of those farmers who are mostly illiterate (Donohue et al., 1975)

Mwololo *et al* (2019) launched a research on farmers, the main objectives were to study the effects of socioeconomic characteristics of the farmer's usage pattern of mass media and interpersonal channels.

Descriptive data obtained from the research revealed that both mass media and interpersonal communication channels were frequently used by farmers for information.

Interpersonal communication sources with mass media usage were mostly used by woman farmers in Benue state Nigeria (O.J. Okwu, 2019). There are some socioeconomic variables, age, education, income, land size and experience tested by using a structured questionnaire. A strong positive relationship was reported between the use of mass media and interpersonal sources with a 5% significance level (Nwalieji, 2019).

Interpersonal communication sources were used most frequently and most perceived as the most reliable sources of information. The frequency of using interpersonal communication sources was highest with a 42% share, followed by mass media usage with a frequency of 32%. (Henry, 2019). Furthermore, among socioeconomic characteristics education and income have a strong positive relationship with the use of mass media and interpersonal communication sources.

Rehman *et al* (2013) in their research paper reported that there are countless sources of information available for farmers. Using this information is influenced by several variables as socioeconomic characteristics. In the study sample size was 361. The sample was taken from the list of three main agriculture magazine subscriptions. After analyzing data on SPSS it was concluded that in mass media, printed media is used by the majority of farmers, whereas interpersonal communication is used mostly among fellow farmers.

Respondents said they perceive interpersonal communication with fellow farmers as the most effective information sharing and using the tool. Printed media that are agricultural magazines were also perceived as the most reliable and useful medium. Socio-demographic .characteristics were found as a decisive force in determining the use of media. Interpersonal communication was also frequently used by farmers and it's mostly used as a contact with fellow farmers (Ganliren, B. 2007).

Data revealed that two variables education and land size were found in a strong positive relationship with the use of mass media. No relationship was found between age and land size with the use of mass media and interpersonal channels.

Nge'no (2013) analyzed the use of existing information sources by farmers in south Rift, Kenya. The main objectives of the study were

1. To document the use of media by farmers.
2. To analyze the influence of socioeconomic characteristics on the selection of different media for use (Adio et al., 2016).

Choice of communication channel is important because of the strong relationship between the selected channel and its effectiveness. Every communication channel is different mainly because of two important reasons.

1. The effectiveness of channel
2. Its utility

Further, there was also found a significant positive relationship between the choice of channel and socioeconomic characteristics of farmers. Such as younger farmers were mostly using mass media whereas farmers of old age, educated, big land size and long experience reported that they prefer interpersonal communication channels for agricultural information (Emmanul, A. 2014).

Several researches have shown that farmers need the information to be utilized in farming activity. (Fiskani Ngwira, 2018), Investigated the dissemination of information to farmers. This study was a survey and 85 farmers were administered with a structured and semi-structured questionnaire. Findings revealed that the main source of information used by farmers were Radio, posters and extension officers.

Further, the study indicated that while using mass media there were several hurdles for farmers such as

Specific Timings

Programs on radio and television have specific timings and most of the time these timings are a challenge for farmers.

Availability of TV and Radio Sets

A major part of the population was poor and could not afford television or radio, so they started using other means of communication which include interpersonal communication sources. Results showed that interpersonal communication is not only most preferred but also most reliable sources of communication.

Socio-demographic Variables and Use of Media

Socioeconomic variables were also mediating factors in the selection of communication channels. The study indicates that respondents with higher literacy rate, low income, small land size and experience were using interpersonal channels most frequently. Whereas younger and higher annual income respondents preferred mass media.

Methodology is an essential component of every scientific study. Adopting a suitable approach necessitates much thought and effort in developing methods and processes for doing scientific research in accordance with the research topic at hand. The procedure's ultimate purpose should be to allow the researcher to collect accurate and trustworthy data and then evaluate it in order to achieve an accurate and reliable conclusion. Using a quantitative technique, the following study seeks to discover the relationship between farmers' usage of mass media and interpersonal channels in Faisalabad. This chapter describes in full the methodology and processes employed in this investigation.

Faisalabad is the main tehsil of district Faisalabad. It has fertile land for agricultural productions. The main crops in Faisalabad are Wheat, Sugarcane and Rice. In Faisalabad the summer season is long, humid, and mostly clear and here winters are short, cool, and foggy-

Tandilianwala

This tehsil is a very big tehsil of district. Sugarcane and Rice are the main crops in this area. The climate conditions in Tandlianwala are so much suitable for Agriculture. The maximum temperature reaches 47-49 degrees Centigrade in the peaks of summers. The climate in winters is also suitable for Agriculture it is very dry and cold. Wind and storms are quite common during the summer. The average rainfall in the district is 119 mm.

Jarawala

Jarawala is the largest tehsil of Faisalabad. It has very fertile land. Sugarcane and Rice are the main crops of this tehsil.

Sumandri

Sumandri Tehsil has a climate of hot summers and cold winters. The higher altitude makes it dry in winters and low rainfall as compared to other parts of Punjab. Sugarcane is the main cash crop of this tehsil.

Sample size for the research was 257 farmers. As there is no satisfactory formula for selecting sample size, but according to Roger D. Wimmer & Joseph R. Dominick.A sample of 257 is considered fair.

The data collection method is defined as the method adopted by the researcher to collect relevant data in a particular type of research. In the present study data collection was done with the help of a survey.

A questionnaire was used to collect data for the study. Farmers' data was gathered by the researcher himself. Every attempt was made to explain the procedure for the aim of the research to the responder so that accurate and relevant reliable information could be acquired from them.

Variables of the Study

A research hypothesis typically includes two variables: an independent variable and a dependent variable. An independent variable is a variable that is manipulated in order to identify its relationship to an observable phenomena through experience. A dependent variable is described as a set of values that change as a researcher introduces, removes, or modifies independent variables.

Independent Variables

Five characteristics of farmers were chosen as independent variables in this study. Age, education, agricultural experience, farm size, and annual revenue were all factors.

Dependent Variables

Use of social media by the farmers in receiving agricultural information was the dependent variable. The social media included Facebook, YouTube and WhatsApp.

On the other hand, use of interpersonal channels was also a dependent variable. Among them, personal contacts, extension officers, farmers were used.

Measurement of Independent

Independent and dependent variables were measured according to the most appropriate available information gathered from farmers.

Introduction

This chapter contains the findings and discussions of the research problem, as stated in the objectives of the research. This chapter aims to describe major findings and data in a cohesive and logical pattern. Different types of graphs and charts will be used to represent data. For ease, this chapter has been divided into four parts.

- The first part is related to the selected individual socio-demographic characteristics of farmers, in other words, it is about demography.
- The second part deals with the association between Socio-demographic features along with use of Social-media and Interpersonal channels by farmers in Punjab.
- Finally, the third and last part deals with comparative statistics between Use of Social-media and Interpersonal channels. As this is a comparative study thus descriptive statistics will be a dominant portion of this chapter.

Selected Socio-demographic Characteristics of Farmers

A large amount of data in this research was descriptive. The responses of respondents are shown here in the form of tables and graphs after statistical analysis. These descriptive results provide an opportunity to understand the demographic features of farmers in Faisalabad.

The Socio-demographic characteristics of the farmers may significantly differ and the countless aspects and factors may impact them in various ways. These variables might have a strong influence on the Use of social media and Interpersonal channels by farmers in Faisalabad. That is why it was of paramount and decisive importance to consider and inspect these selected variables. The Six selected characteristics were as follows.

Use of social media by Farmers

At present, in the digital age, online social media is a new emerging mean of communication, it is also known as the new media. It Includes all the applications and websites which connect people with each other.

If Farmer's use social media was one of the key objectives of this research. Data on the availability of important media and its usage will be represented and discussed here. Facebook is an effective source of providing information. The table below shows the use of Facebook by farmers for agricultural information.

Table 1

Opinions of Farmers about Facebook

	Frequency	Percent
Strongly Disagree	25	9
Disagree	30	11
Uncertain	35	11
Agree	137	54
Strongly Agree	30	11
Total	257	100.0

From table 1 it is clear that 137(54%) respondents agreed that facebook is a source of information. This shows a higher number. 30(11%) said they strongly agree. 25(9%) said strongly disagree, 30(11%) disagree and responses of 30(11%) were uncertain. This was concluded that the majority of farmers thought that facebook is a source of agricultural information and knowledge.s

Table 2

	Frequency	Percent
Never	0	0.0
Rarely	14	5.6
Sometimes	55	19.8
Usually	142	56.3
Always	46	18.3
Total	257	100.0

This is interesting to know that almost all respondents said that they have been using facebook. From the table, it is clear that 0% of farmers were in the category of "Never". The majority that is 142 (56%) said that they use facebook "Usually". 46(18%) responded with the option of "always"55(20%) used "sometimes" 14(18%) said "rarely".

From the above data, it is concluded that Facebook is available to farmers as an essential source of Agricultural information and farmers also utilize it.

Table 3

	Frequency	Percent
Not at all	3	1.2
A Little	12	4.8
Moderately	48	17.1
A Lot	102	40.5
A great deal	92	36.5
Total	257	100.0

This data provides useful insight into the usage pattern of YouTube. Data revealed that 102 (40%) farmers said that they are using YouTube.

Table 4

Use of WhatsApp by Farmers

Frequency	Percent	
Never	9	3.6
Rarely	123	48.8
Sometimes	53	21.0
Usually	46	18.3
Always	26	8.3
Total	257	100.0

Although WhatsApp comes under the category of direct Communication. Significantly 123(48%) use radio rarely. This can be concluded that attractive information is not available on the WhatsApp for farmers. 26 (8.3%) respondents said that they always use the WhatsApp.

Television is the most popular form of electronic media. Since television is also available in the majority of the areas in Punjab. Since Pakistan Television Corporation has been producing many agricultural programs thus when it comes to the role of television in the promotion of agriculture PTV remains on the top of the list. Although the Information Department and Agricultural Research Council have been producing programs and documentaries for farmers PTV has a primary role in telecasting agricultural programs. After the arrival of private media channels, some private channels also started telecasting agricultural programs. There are 82 television channels available on cable but only a few programs are on agriculture. Here is a list of channels providing agricultural programs.

Table 5

List of Television Channels with Agricultural Programs

Television Channel	Program Name	Years
Apna Channel	Apna Kissan Apni Zrat	(2004-10)
Punjab TV	Khaet Punjab Day	(2004-10)
Channel 5	Kisan Time	(2005-07)
PTV	Haryali	(2000-Present day)
Aaj TV	Zarkhaez	(2005-10)

Haryali is the only program that is still being telecast on PTV. Based on this data it was important to know about the familiarity of televised agricultural programs. Thus it was asked and the data revealed is shown here Parameter: familiarity with televised agricultural programs

Table 6

Familiarity with Televised Agricultural Programs

Frequency	Percent	
Khaet Punjab Day	22	8.73
Apna Kissan Apni Zrat	20	7.94
Zarkhaez	15	3.97
Haryali	150	59.8 *
Sarsabz Pakistan	50	19.84
Total	257	100.0

According to data majority of 150(59.8%), respondents were the viewers of the Haryali program televised by PTV, the reason must be that the ^ Pakistan television network is easily reachable but it was not the current research's aim to know the causes. 50(19.8%)respondents said that they watch the Sarsabz Pakistan program, 22(8%) informed that they like to watch Khaet Punjab Day. 20(7.9%) of the farmers are the viewers of ApnaKissanApniZrat program transmitted from Apna Channel and 10(3.97%) of the people are the audience of Zarkhaez program.

Results showed that a higher proportion of farmers was familiar with televised agricultural programs thus it was asked about the use of television. The use of television for agricultural information is shown in the table below.'

Personal Contacts

Personal contacts are channels that a farmer has personal access. Some farmers heavily rely on personal contacts. These personal contacts might be of many types such as contact with an agriculture officer, contact with an expert on farming contacts with agrochemical agents and officials of seed cooperation, etc. In this study personal contacts are taken in a general category. The obtained data is shown in the table below.

Parameter: Use of Personal Contacts

Scoring: Not at all =1, A Little =2, moderately =3. A Lot -4, A great deal =5

Showing response of Farmers Using Personal Contacts (N = 257)

Table 7

Farmers Using Personal Contacts

Frequency	Percent	
Not at all	0	0.0
A Little	29	11.5
Moderately	88	34.9
A Lot	95	37.7
A great deal	45	15.9
Total	257	100.0

This data showed that respondents have enough personal contacts and they are using them a lot with the number of 95(37.7%). However, 88 (34.7%) said that they use personal contacts moderately. This is followed by 40(15.9) with a response of a great deal and a little with a ratio of 29(11.5%).

Table 8

Use of Interpersonal Channels and Tehsil

	Tehsil	Use of Interpersonal Channels for Agricultural Information
Pearson Correlation	1	-.0.76
District N	257	257
Pearson Correlation	-.0.76	1
N	257	257

Based on the above results and findings the researcher has concluded that the residence of farmers has a weak positive relationship with the use of mass media and a negative relationship with the use of interpersonal channels.

Age

Age is one of the most important aspects of a farmer's life. Groups of different ages may have different types of priorities. The age of the farmers in the selected sample ranged from less than 18 years to above 60 years. For data analysis, the respondents were categorized into three categories. These categories were Young Age, Middle Age, and Old Age.

Table 9

Use of Social media and Age

	Age	Use of Social Media
Pearson Correlation	1	+0.073
Age N	25	257
Pearson Correlation	+0.073	1
N	*i* 252	257

Data analysis discovered that the value of r between the use of Mass media and Age was computed (+0.073) with a significance level of 0.05%. This shows a positive trend between the Use of social Media and Age. Respondents of Young and Middle age farmers usually use more soial media as compared to Old aged Farmers.On the other hand, the value of r between Use of Interpersonal Channels and Age showed a negative trend. The value of r was computed -0.063 with a significance level of 0.05%. Thus negative association was found between Use of Interpersonal Channels and the Socio-demographic Characteristics of farmers.

Conclusion

A conclusion is a description or statement grounded on major outcomes of the study. These statements commonly are the confirmations of the objectives of the research in the shortest and simple form. Thus a conclusion contains the direct answers of the research objectives, research questions and hypothesis.

Keeping in mind the objectives and research questions of this study and the above statement and guidelines following conclusions are drawn to summarize the results and findings of the study.

Results have shown that most of the farmers use social-media and interpersonal channels to acquire information on agriculture. If this information is timely then it provides them with useful insights. The Use of social-media and Interpersonal channels by farmers has no relationship with their residence of the tehsil. This can be concluded that farmers of all areas in Punjab require timely information and they are critical in using them (Matthews-Njoku, 2009).

This study indicates that the use of social-media has a significant relationship with the age of farmers. It was found that young and middle-aged farmers do use

social media and old aged farmers mostly found using interpersonal channels. Further, there was no significance found between interpersonal channels and age.

Education is one of the most important qualities to get knowledge and necessary skills of a person. It was found that there is a significant relationship between the use of social-media and the education of farmers. It was recorded that more educated farmers use social-media more efficiently as compared to less educated. Therefore, it may be concluded that education plays an important role in using media and interpersonal channels.

Agricultural status is also important in using social-media and interpersonal channels. Statistical analysis shows that agricultural status has a significant relationship with both the use of social-media and interpersonal channels.

Land size is also important and has a significant relationship with the use of social-media but no relationship was found with interpersonal channels. It was found that farmers with more land use more media.

Opportunities for Future Research

As this research study was an education project and it has many limitations thus following recommendations were made for future study.

This research study was limited to only one district of Pakistan so this research cannot show the exact picture of mass media and interpersonal usage patterns among the farming community. Thus similar research projects may be conducted in other palaces of Punjab while considering socio-demographic, geographical, and agro- ecological variables to find more valid results. The research was limited in finding the relationship with only six sociodemographic variables but there may be many more other variables that must be included in other studies (Ali, et al., 2019)

The research was also limited to few social-media and few interpersonal channels but there are many thus other researchers must include other types of mass media and interpersonal channels in their studies.

Limitations of the Study

There are always some limitations of every research study. Limitations of this research are described here.

1. In this research study population is common farmers, and data was collected from farmers according to some specific traits of farmers.
2. Reliability of data depends upon the understanding of respondents and their interests.
3. This research was limited only to four tehsils of Faisalabad.
4. This study was also Faisalabad based, thus it can only be viewed within the socioeconomic, geographical, and cultural frame of Faisalabad.

Furthermore, the study was limited to 300 respondents for data collection and finally, data was collected from 252 respondents with a response rate of 84%.

References

Adekunle, A. A. (2002). *Agricultural information dissimention, An audience survey in Kano State*. International Institute of Tropical Agriculture. Nigeria: USAID.

Aderibige, A. (1990). *An evaluation of the efforts of communication pattern on adoption of HTA research programs*. IITA Research Programs. Ibadan, Nigeria: Department of Communication and Language Arts University.

Adikari, P. (2014). Usage of Mass media by Farmers in Sri Lanka. Developing Country Studies, 4(4), 1-04. https://iiste.org/Journals/index.php/DCS/article/view/11098/11399

Adio, E., Abu, Y., YUsuf, S., & Nansoh, S. (2016). Use of Agricultural Information Sources and Services by Farmers for Improve Productivity in Kwara State. *Library Philosophy and Practice (E-Journal)*. http://digitalcommons.unl.edu/libphilprac/1456?utm_source=digitalcommons.unl.edu%2Flibphilprac%2F1456&utm_medium=PDF&utm_campaign=PDFCoverPages

Ali, M., Man, N. & Muharam, F. M. (2019). Association Between Sociodemographic Features and Intention of Farmers to Use ICT for Agricultural Risk Management in Malaysia. *Pakistan Journal of Agriculture, 35*(1), 50-56.

Ani, A. (2015). Utilizaton of Mass Media Among Farmers in Ikwere local and their awareness and adoption of short agricultural messages telecast on Television. Intemation Journal of Advance Research in Biological Sciences,

Ani, A. U. (2015, July). Utilization of Mass Media by Farmers in Nigeria. Journal of agriculture and Vetemery Science, 8(7), 41-47.

Arnold Piet, R. R. (2008). *Information, Organizationon and management*. Berlin: Springer.

Awili, M. A., White, & Kimotho, S. (2016). Factors that inflence effective communication of agricultural information among farmers- The case of farmers in Southwest Kisumu Ward, Kisumu County. *Journal of Developing Country Studies, 1*(1), 1-20. https://www.iprjb.org/journals/index.php/JDCS/article/view/21/64

Bachhav, N. (2012). Information Needs of the Rural Farmers : A Study from Maharashtra, India: A Survey. *Library Philosophy and Practice (E-Journal)*. https://digitalcommons.unl.edu/libphilprac/866?utm_source=digitalcommons.unl.edu%2Flibphilprac%2F866&utm_medium=PDF&utm_campaign=PDFCoverPages

Balamurugan, V. (2015). learning Experience of Small Farmers in Sugarcane Cultivation. *Journal of Extension Education, 27*(1), 5379-5381. https://core.ac.uk/download/pdf/42045862.pdf

Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A Dependency Model of Mass-Media Effects. *Communication Research*, *3*(1), 3–21. https://doi.org/10.1177/009365027600300101

BAN, A. W. (1968). *Interpersonal communication and Diffusion of innovation*. Revision of a paper presented at the Second World Congress of Rural Sociology, (pp. 200-220). Drienerlo: Dept, of Extension Education, Agricultural University, Wagen.

Benard Ronald, G. F. (2015, Apirl). Preference Sources of Information Used by Seaweeds Farmers in Unguja, Zanzibar. *Academic research journals, 3*(4), 116-134.

Camble, E. (1992). Access to and Utilization of Quality Information in Rural Development Research. *The Public Opinion Quarterly, 37*(4), 509-523.

Chacharr, A. R., osmaan, M. N., omar, S. Z., & Soomro, B. (2012). Immpact of Satlite television on agricultural developmeent. *Global Media Journal, Malysian Edition, 2*(2).

Donohue, G. A., Tichenor, P. J., & Olien, C. N. (1975). Mass Media and the Knowledge Gap. *Communication Research*, *2*(1), 3–23. https://doi.org/10.1177/009365027500200101

Emmanul, A. (2014). Modren channels of information for agricultural information in Rural farm communities in Nigeria. *SCSR Journal of Development, 1*(4), 78-89.

Finance Ministry Report . (2018-2019). *Finance Survey 2018-2019*. Islamabd: Finance Ministry.

Finance Ministry. (2018-2019). *Economic Survey of Pakistan*. Islamabad: Finance Ministry.

Fiskani Ngwira, F. M. (2018). Disseminating agricultural information services to Farmers for attaining food security in Zombwe, Extention Planning MZUZU Agricultural development division Mzimsa, Malawi. *Agriculture research* , 579-615. https://www.scecsal.org/publications/papers2018/037_ngwira_2018.pdf

Food and Agriculture Organization of United States.

(2009). *FAO Representation Pakistan*. Islamabad: FAO.

Gachuhi, L. (2020). *SME's Agribusiness Challenges & Solutions in Africa*. Nairobi, Kenya: Exceller Books.

Ganliren, B. (2007, October). The observation and experiment of Field dependence, Field independence based on R and T users. Behavioral of information searching. *Journal of Canadain social science, 3*(5), 58-65.

Griffin, E. (2012). *A first look at communication theory*. New York : Me Grawhill.

Information and facts of Punjab. (2018, June 10). Retrieved from Pak information: http://www.pakinformation.com/punjab/district.html

Jallo, C. (2016). *Assessments of information and communication technologies in Pakistan Agricultural Extension*. Davis: University of California.

Khan, M. A., & Akhtar, P. (2019). INTERPERSONAL COMMUNICATION AND DIFFUSION OF INNOVATION IN AGRICULTURE SECTOR OF PAKISTAN. *Journal of Development Communication*, *30*(1), 1-9.

Kharmudai, A., Devarani, L., Pandey, D., Singh, R., & Singh, R. (2018). Communication Behaviour of Farmers Registered Under m4agriNEI. *Indian Res. J. Ext. Edu*, *18*(3), 1–5. https://seea.org.in/uploads/pdf/2018-57-1-5.pdf

Lee, M. (1996). Information access behaviour and expectancy of quality: Two factors affecting the satisfaction of users of clinical hospital information systems. *Journal of Information sciences, 22*(3), 171-199.

Mgbakor, M., Iyobor, O., & Okezie, U. M. (2013). Contributions of Mass Media to the Development of Agricultural Extension in Ika North East L.G.A of Delta State, Nigeria. *Academic Journal of Plant Sciences*, *6*(3), 127–133. https://doi.org/10.5829/idosi.ajps.2013.6.3.1113

Mwololo, H., Nzuma, J., & Ritho, C. (2019). Do farmers' socio-economic characteristics influence their preference for agricultural extension methods? *Development in Practice*, *29*(7), 844–853. https://doi.org/10.1080/09614524.2019.1638344

Nwalieji, H. U., Ezeakunne, C. C., Enwelu, I. A., Okeke, M. N., Udemezue, J. C., & Uzuegbunam, C. O. (2019). Mass media utilization by poultry farmers in Anambra State, Nigeria. *Journal of Agricultural Extension*, *23*(2), 1. https://doi.org/10.4314/jae.v23i2.1

Oijio, N. a. (2013, July). Assessment of Mass Media Contribution to Agricultural Technology Adaptation in Owerri Agricultural Zone of Imo, State, Nigeria. Global Advanced Research Journal of Management and Business studies, 2(7), 389-394. http://beta.garj.org/garjmbs/pdf/2013/July/Nwankwo%20and%20Orji.pdf

Okwu, O. J., & Shimayohol Daudu. (2011). Extension communication channels' usage and preference by farmers in Benue State, Nigeria. *Journal of Agricultural Extention and Rural Development*, *3*(5), 88–94. https://doi.org/10.5897/jaerd.9000040

Oladeji, O. A. (2018). Farmers Exposure to Mass Media. *Journal of scientific research and reports, 20*(6), 10-25.

Opara, U. N. (2008). Agricultural Information Sources Used by Farmers in Imo State, Nigeria. *Information Development*, *24*(4), 289–295. https://doi.org/10.1177/0266666908098073

Pieter, J. F. (2007). *Media studies, institutions, theories and issues*. South Africa : Juta Education.

Poole, N. (2017). *Smallholder Agriculture and Market Participation*. New York: Practical Action Publisher.

Raza, M. H. (2019). *Emerging treends and challanges in the uuse of ICT, for beettter agricculnral information in Punjab, Pakistan*. Doctrate Thesis . Faisalabad.

Singh, A. (2014). *Agriculre Extension and Mass Communication*. Jodhpur: Agrobios Publications.

Singh, B. K., Oraon, J., Pandey, A. K., Kumari, N., & Shweta, K. (2019). Use of Information Media and Awareness Status Regarding Dairy Animal Welfare Practices in Jamtara District of Jharkhand. *International Journal of Current Microbiology and Applied Sciences*, *8*(01), 755–759. https://doi.org/10.20546/ijcmas.2019.801.083

Sreeramulu, M. (2016, November). Agricultural Magzines and Information Dissimination; A study of Govt Identified Farmers in Andhra Pardesh.