Citation: Shaikh, S. S., Hassan, A., Forooqui, Y. S. (2020). Role of Mass Media in Dissemination of Agricultural Information among Farmers of Hyderabad, Sindh - Pakistan. *Global Economics Review, V*(III), 88-96.
https://doi.org/10.31703/ger.2020(V-III).09

URL: http://dx.doi.org/10.31703/ger.2020(V-III).09 **Pages:** 88 – 96 **DOI:** 10.31703/ger.2020(V-III).09
p-ISSN: 2521-2974 **e-ISSN:** 2707-0093 **L-ISSN:** 2521-2974 **Vol.** V, **No.** III (Summer 2020)

Role of Mass Media in Dissemination of Agricultural Information among Farmers of Hyderabad, Sindh - Pakistan

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Abstract *This study inspects the role of mass media in terms of spreading information related to agricultural activities in Hyderabad district (Sindh) Pakistan. It also aims to explore the most preferred medium of information among farmers. Three areas including Tando Jam, Hosri and Hatri are chosen from Hyderabad district. The total sample data collected through purposive sampling technique from 180 farmers, whereas 60 farmers are equally selected from each area. The study found a significant role of mass media in disseminating agricultural information. In mass media the most likely source is print media where the daily Kawish and the daily Ibrat are having more readership as compare to other newspapers. Moreover, the newspaper's contents help farmers to get latest information regarding agriculture activities. This study will help public and private institutions in policy making regarding agricultural awareness of farmers. It also helps the mass media stack holder to make policies related to audiences and contents publishing.*

Key Words: Mass Media, Agricultural Information, Farmers, Dissemination

JEL Classification:

Introduction

Mass media is one of the powerful sources of information which disseminates information about health, education, social, political and agricultural development, etc. It categorizes into electronic and print media. The mass media plays a significant role in the agricultural awareness of farmer which ultimately increases the productions (Javaid, 2017). Agriculture growth considerably depends on the communication of information and knowledge which is transferred among farmers. The mass media plays an important role in dissemination of agricultural information (Ekoja, 2003). The mass media contributes in spreading of information and enables remote areas farmers to make decision about farming activities (Chhachhar, 2012).

The scientists observed that there is a declination in agriculture production share in the economy owing to old seed fertilization, orthodox cropping system, poor soil fertilization and awareness of information regarding better crops cultivation (Shah,

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2018). In addition, a study of Nigeria economy reveals that the farmers face many challenges against the consumptions of mass media such as insufficient capital, access of frequency modulation (F.M) radio, shortage of electricity, timing of programs and mode of programming. The study also acclaims that Radio, Television and newspapers are most effective medium of communicating scientific knowledge about agriculture development to farmers (Mgbakor et al., 2013). However, it has been found that mass media do not play its due role in diffusion of information regarding agriculture among farmers (Abdullah et al., 2005). These differences have been observed in developing and underdeveloped countries.

The farmers face a lot of problems regarding availability of agricultural awareness particularly in rural areas. Because they do not get agriculture related information properly. As a result of lack of updated information concern to high crop production, farmers do not have proper information. Further, farmers have less awareness about the trade market of goods and services and updated information concern to agriculture development. They do not have updated information of seed fertilizers, soil fertilisation, seasonal cropping, weather forecasting and climate change. Updated information in agriculture activities are diffusing very fast in the global world. But, due to lack of awareness and less access of mass media in rural areas, farmers do not know the utility of latest information and proper usage of products. Mass media has categorized in electronic and print media. In this study, electronic media comprises only radio and television which are widely in use to disseminate the agriculture related information to farmers of rural areas. However, print media only concern to the newspapers in the current study. Farmers are facing the problems of shortage of electricity and a lot of issues in agriculture development (Ban & Hawkins, 1992; Olowu & Oyedokun, 2000).

The role of mass media/communication is an important factor of modern agriculture to make change and progress in this field. Electronic media plays its crucial role while transmitting the agricultural information/innovation to the farmers. Doubtlessly, the diffusion of mass media is increasing with the passage of time. Moreover, accessibility of farmers to reliable and relevant information is becoming more and more important (Onuekwusi & Gideon, 2007; Swanson, 2008; Abubakar, Ango & Buhari, 2009).

Pakistan recognized the importance of the role of mass media in agricultural growth. There is a dire need of agricultural development to be a prosperous and resourceful nation. The mass media can play its tremendous role in this regard. In this study, data of farmers for analysis are undertaken from Hyderabad which is the second largest city after Karachi in Sindh province of Pakistan. Therefore, it has been found that in rural area of Hyderabad district (Sindh) farmers are less informative in agriculture development due to insufficient feasibilities of information via mass media.

In this study, the null hypothesis (H_0) is established against the alternative hypothesis (H_1) which tries to find out the role of the mass media while promoting of agricultural information.

H_0: The mass media does not promote agricultural information among farmers of Hyderabad, district (Sindh) Pakistan.

H_1: The mass media promotes agricultural information among farmers of Hyderabad, district (Sindh) Pakistan.

Researchers agreed that latest knowledge and information are the fundamental sources for agriculture development. But due to lack of access to information, the farmers are facing a lot of issues. Therefore, the current study has been carried out to

explore the role of mass media in spreading information regarding agriculture developments among farmers of Hyderabad district (Sindh) Pakistan. This study focuses on the following objectives:

i. To investigate the role of mass media in spreading information related to agriculture activities specifically among farmers of Hyderabad.
ii. To explore the most preferred medium in mass media for spreading agricultural information among farmers of Hyderabad.
iii. To identify the mass media contents received by the farmers of Hyderabad regarding agricultural developments.

Reviews of Studies

Scholars agreed that farmers preferred mass media for agricultural development, though they received updated information regarding agriculture innovations of technologies (Chhachhar et al., 2012; Memon et al., 2014; Javaid, 2017). Memon et al. (2014)'s study revealed that more than an average farmer highly preferred media as a source of information and they had easy access to agricultural information. Further, they found that majority of the farmers preferred to listen agriculture related program during 8pm to 12am PST by Radio (Memon et al., 2014).

Mass Media

gave coverage to contents concerned to the agricultural productivity, plant protection measure, forecasting of weather, new cropping method and livestock (Javaid, 2017). Javaid (2017) said that mass media was the main source to educate and inform the masses. In addition, mass media had significance characteristics such as extensive coverage on radio and television programs and published contents in newspapers. Javaid (2017) depicted that farmers had access to television and radio but they mostly preferred newspapers, pamphlets, leaflets, panaphelics, brushers and agents of agricultural pesticide medicine companies. She said that farmers mostly had credibility on fellow farmers for obtaining agriculture related information. In developing countries, the development of agricultural program largely depended on the extensive use of mass media, which mobilised people (Gunya, 2017). Further he said that Malawi's media satisfactory covering agricultural issues which enhanced country's economy.

Print Media

is the category of mass media as argued by Rehman (2011). He highlighted that farmers in Punjab use print media as an important source of information. He revealed that there were some key factors, which were included farmer's interest, newness, quality of information, in time publication, easy access of print media, farmer's rate literacy, cost of print media and comprehensiveness of information related to agriculture development.

Ravichamy et al. (2017) conducted a study on banana growers in Theni district Tamil Nadu, India. He found that majority of farmers had their own television sets but only 18 per cent farmers preferred to watch agriculture related programs on television and also revealed that television did not provide proper agriculture information. K. S Kumar & K.P (2017) depicted that farmers of Nedumangad in Kerala believed in television as most important medium of spreading of present information pertaining to their agricultural need. They mostly depended on magazine, television and magazine. The

Kerala's farmers understood the information dispersed by the mass media had a good impact on agriculture production. A similar results found in the study of Dash et al.(2017), which stated that majority of farmers mostly used television for the purpose of agricultural information, entertainment and political news at night.

Materials and Methods

The population of the present study includes farmers involved in the agriculture activities belong to different areas including Tando Jam, Hosri and Hatri of district Hyderabad. Purposive sample technique is employed to select 180 respondents of the study. The total numbers of farmers are equally distributed for the convenience and accessibility of the researcher.

Data Analysis

The data are analyzed and interpreted by applying descriptive and inferential statistics by using Statistical Package of Social Sciences (SPSS). The frequency and percentage of categories are displayed in tabulation and visualization.

Results and Discussions

This section contains the results of descriptive analysis.
The demographic profile contains information about male farmers only in table 1. Of which 41.1% of farmers have primary to secondary level of education followed by 34.40% having matriculation to above education. It has reveals that less education might be reasons behind less agricultural production on land. A similar result found by Javed (2017) where 62% of respondents have primary education indicating sticking feature of farmers. As far as the farm size is concerned, most of the farmers have 1 to 10 acres and their income earning is up to Rs. 21,000.

Table 1. Demographic Profile of Farmers

Variables	Frequency	Percentage (%)
AGE		
18-28	11	
29-39	29	
Above 40	140	
Total	180	100.00%
Farmers Education		
Illiterate	44	24.40%
Primary to Secondary	74	41.10
Matriculation to above	62	34.40%
Total	100	99.90%
Ownership of Land		
Personal Land	91	50.60%
Tenant	89	49.40%
Total	180	100.00%
Income Level		
10,000-15,000	68	
16000-21000	24	

Variables	Frequency	Percentage (%)
Above 22,000	84	
No answered	4	2.20%
Farm Size		
1-10 Acre Land	148	82.20%
11-20 Acre Land	11	6.10%
21-30 Acre Land and above	21	11.70%
Total	180	100.00%

Table 2. Ownership and Using Habit of Mass Media

Variables	Frequency	Percentage
Ownership of TV set		
Yes	179	99.4%
No	1	0.6%
Ownership of Radio		
Yes	148	82.2%
No	32	17.7%
Watching TV Hours		
2-4 HOURS	156	86.7%
4-6 HOURS	19	10.6%
ABOVE 6 HOURS	5	2.8%
Listening Radio Hours		
2-4HOURS	127	70.6%
4-6HOURS	39	21.7%
Do not listen	14	7.8%
Reading / Listening Newspapers Hours		
Half an hour	124	68.9%
1-2 hours	51	28.3%
Not answered	5	

Table 2 indicates that approximately each household has at least one television and majority of them (82.2%) have radio set. About 86.7% of farmers spend at least 2-4 hours while watching television and 70.6% of them listen radio programs & news for 2-4 hours. Although, more than an average farmers (68.9%) spend at least half an hour in reading / listening newspapers in a group at restaurant or at a specified place. Traditionally, one man reads national newspaper in a native language and all farmers listen carefully and discuss issues with their fellow farmers at restaurant in evening time.

Table 3. Preferences of Programs in Mass Media

Preferences of Program in Mass Media	Yes	Sometimes	No
Agricultural programs	141(78.3%)	37(20.6%)	2(1%)
News	138 (76.7%)	37(18.9%)	8(4.4%)
Drama	114(63.3)%	59(32.8%)	6(3.3%)
Entertainment	66(36.7%)	107(59.4%)	7(4.3%)
Documentary	56(31.1%)	68(37.8%)	56(31.1%)
Sports	84(46.7%)	58(32.2%)	38(21.1%)

Generally, audience likes to watch and listen entertainment program on television and radio. But, it is surprisingly found that majority of the respondents (78.3%) prefer to watch/ listen agricultural programs for most of the time followed by 76.7% and 63.3% of farmers interested in news of currents affairs of the country and drama respectively shown in Table 3.

Table 4. Print Media

Variables	Frequency	Percentage
Print Media		
Newspapers	88	48.8%
Pamphlets	39	21.6%
Leaflets	30	16.6%
Magazine	13	7.2%
Books	10	5.5%
Total	180	100%

Table 4 shows that most of the respondents (48.8%) like to read newspapers followed by pamphlets (21.6%) and leaflets (16.6%). Whereas, very rear farmers select magazines (7.2%) and books (5.5%) for finding the information related to agriculture.

Table 5. Favorite Newspapers

Favorite Newspapers	Frequency	Percentage
Awami Awaz (Public Voice)	1	0.5%
Chinning	4	2.2%
Dawn	2	1.1%
Halchal	2	1.1%
Hilal Pakistan	1	0.5%
Ibrat	28	15.5%
Imkan	19	10.5%
Jang	1	0.5%
Kawish	93	51.6%
Mehran	6	3.3%
Pak Sindh	3	1.6%
Sindh	5	2.7%
Sindh Express	10	5.5%
Waqat	1	0.5%
Not use newspaper	4	2.2%
Total	180	100%

Majority of the farmers prefer to read/listen in their own language which is Sindhi. Moreover, it has found that due to easy access of newspapers people prefer the Daily Kawish (51.6%) and the Daily Ibrat (15.5%) followed by the Daily Sindh Express, which is also read/ listened by farmers at the place of restaurant (Otaq) and agriculture land under tree. Usually, farmers sit in a group in evening time at restaurant, a place of gathering of rural people (otaqe) and on land are for sharing of updated news, information, events of all day.

Table 6. Major Source of Agricultural Information in Rural Areas

VARIABLES	Very High	High	Medium	Low	Very Low	Not Applicable
	1	2	3	4	5	6
TV	55.6	17.2	8.9	3.9	11.1	1.7
Radio	23.3	43.3	21.7	5.6	5.0	1.1
Print Media	40.0	32.8	15.0	6.7	4.4	1.1
Extension Field Staff	16.1	52.2	12.2	8.3	9.4	1.7
Private Sector	27.2	23.9	35	7.2	5.6	1.1
NGOs	20.6	36.7	27.2	7.8	5	2.8
Fellow Farmers	61.7	18.9	5.6	4.4	5.6	3.3
Any Other	8.9	15	6.1	3.9	3.3	62.8

Although, farmers receive information by the mass media but they trust on their fellow farmers to get respective information of agricultural market price, climate change, seed fertilization techniques, etc. However, television, radio and print media are the major source of information particularly for farmers in rural areas. Farmers accept that the mass media is a credible source of information. The table 5 depicts that television is the major source of agricultural related information for (55.6% very high) farmers followed by (40.0% very high) print media and (23.3% very high) radio.

Table 7. Farmer's Receiving Agricultural Information by Mass Media

Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Weather change	121(67.2)	53(29.4)	6(3.3)	0	0
Market price	102(56.7)	68(37.8)	4(2.2)	0	0
Annual closer / rotation of water from irrigation department	89(49.4)	81(45.0)	10(5.6)	0	0
Seasonal cropping	53(29.4)	113(62.8)	14(7.8)	0	0
Cultivation techniques	65(36.1)	100(55.6)	15(8.3)	0	0
Disaster Preventions Alerts	83(46.1)	77(42.8)	20(11.1)	0	0

It is very surprised to find that the results in table 6 indicate that farmers did not disagree regarding receiving of information in the context of agricultural information. Further, table 6 also shows that all farmers receive the substantial information regarding weather change (67.2%), market price (56.7%), rotation of water from irrigation department (49.4%), seasonal cropping (62.8%), cultivation techniques (55.6%) and disaster preventions alerts (46.1%).

Table 8. Farmers Acknowledgement of Using Agriculture Information

Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Saving time	119(66.1)	51(28.3)	10(5.6)	0	0
Easy than traditional	80(44.4)	90(50)	10(5.6)	0	0
Less laboring	45(25.0)	119(66.1)	16(8.9)	0	0

Variables	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
High production	54(30)	101(56.1)	25(13.9)	0	0
Authenticated by Government	55(30.6)	95(52.8)	25(13.9)	0	5(2.8)

Table 8 reveals that farmers have acknowledged the usefulness of new information relate to agriculture definitely take less time (66.1% strongly agreed) in cultivation, less laboring (66.1% agreed) and high crop production (56.1 agreed). The information reach to farmers with the channels of mass media are authenticated (52.8% agreed) by the Government of Sindh.

The table 9 depicts that sampled farmers follow traditional method of seed fertilization, plant protection and irrigation method due to lack of resources. Although, they also have insufficient information related to the procedure of higher agricultural production.

Table 9. Reasons of Non-adoption of Agriculture Information

Variables	Lack of Resources	Lack OF Awareness	Follow Traditional Method
Fertilization application	59 (32.8%)	115(63.9%)	6(3.3%)
Plant protection	27 (15.0%)	71(39.4%)	82(45.6%)
Irrigation method	17(9.4%)	51(28.3%)	112(62.2%)

Discussion and Conclusion

The mass media has significant role in spreading the information regarding the agriculture activities. The results are indicating that television and radio are playing a sufficient role in dissemination of information related to agriculture. The most likely source of is print media where the daily Kawish and Ibrat have more readership as compare to other newspapers. While the contents about agriculture in these newspapers help farmers to gets information regarding agriculture activities.

After interpretation of data the alternative hypothesis H1, which indicates the promotion of agricultural information through the mass media, has proved. This study will help public institution in making policy regarding farmers' awareness. In future a study can be done by increasing sample size and extending empirical analysis.

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