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Mass Media as a Source of Agricultural Information: An Overview of Literature

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Abstract: *This research paper provides a systematic review of published research work by different research scholars regarding the role of communication channels in disseminating agricultural information and the diffusion of agricultural innovations among agriculturists. Findings of review are summarized with the help of reviewing methodology, major findings and implications of earlier published researches. The review depicts that there are significant variations in findings of the relevant researches some certain reasons like geographical, methodological and theoretical perspectives. It is hard to draw any specific conclusion about the role of a different communication channel in the agriculture sector. However, the review has revealed that the different channels of communication have a different role regarding the dissemination of agricultural information and diffusion of innovations amongst farmers.*

Key Words: Mass Media, Agricultural Information, Adoption of Innovation, Farmers

Introduction

Since 2002 a large number of private television channels have been established in Pakistan, and their role in development support communication is also of greater value. Pakistan is an agricultural country, and almost a large number of its labour population is engaged with agriculture. The agriculture sector of Pakistan is providing food to both rural and urban areas. Considering the role of communication tools, the agricultural agencies of government have always been using different tools of communication to disseminate relevant information and diffusion of useful innovations.

Farmers community also get relevant information regarding their agricultural activities and also increase their agricultural yield rate through effective communication. Sometimes, the agriculture extension department also uses these channels to disseminate useful agriculture-related information. Agricultural information may be in different ways, for example, selection of soil and cultivation for selected crops, appropriate usage of fertilizers, irrigation, economical utilization of pesticides and use of recommended seeds of crops. Mass media plays a vital role to disseminate useful information amongst farmers to solve their problems. According to Memon et al. (2014), a larger portion of respondents in the area under research used conventional sources of media. According to them, communication sources for agriculture-related information were available. A higher portion of respondents declared that the information provided by the radio was useful to solve their agricultural problems.

Agriculture is a major source of income; tunnel farming, cotton rice, wheat, maize and sugarcane are cash crops of Pakistan. Every farmer wants to enhance yield rate of agricultural production for a handsome profit and for this purpose farmer uses mass media for seeking useful information, such as the information about hybrid seeds, irrigation system and approaches, crop protection and of various new technologies in agriculture. Farmers' community uses various communication systems to get valuable information about their crops. However, in Pakistan, mass media does not give appropriate coverage to agricultural telecasts due to certain factors. Zia & Khan (2012) highlighted that the Apna channel granted 8.3% air

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time to agricultural programs. Research also indicated some important reasons, i.e., sponsorship, low frequency of revenue and viewers.

In the absence of media coverage of farmers, they prefer to seek agricultural information via interpersonal communication related to the adoption of innovations. Similarly, Ahmed et al. (2007) have concluded that the majority of the farmers were not aware of these extension workers and their benefits a lower number of farmers visited the agriculture department office weekly, monthly or yearly basis. However, the respondents used to listen to the radio and watch agricultural television telecasts more than expected.

This study aims to consolidate the valuable research-based knowledge through a systematic review of previously published researches on the role of different media for dissemination of agricultural information and adoption of innovations amongst farmers and also to investigate that what has been done in the past or to identify the gap for making a way forward.

Method

In order to consolidate the research-based knowledge, previously published research articles which were identifying the role of mass media, including interpersonal communication for disseminating agricultural information amongst farmers, farmers' perception and media coverage to agricultural information, have been retrieved from different online sources using the keywords; electronic media, mass media, print media interpersonal communication agricultural information, farmers perception, diffusion of agricultural innovations by using 'AND' and 'OR' as a Boolean. After obtaining sufficient research articles, the abstracts of the research papers were examined one by one to find the most relevant research papers. Accordingly, 25 research papers published from 2005 to 2015 were selected and reviewed in the tic method of review. The literature review has been organized in headings and sub-headings according to the APA 6th manual of the manuscript.

Demographic Status of the Literature

First, the amount of research is limited, particularly relating to Pakistan; second, the databases do not even cover the required amount; and finally, some research papers have been written by agrarians and some other disciplines from social science. These papers have been published between the periods of 2005-2015. These 25 types of research were conducted by 81 authors, out of which 38 were Pakistani, and the rest were foreign authors whereas, research papers were published by 20 Journals, including 10 Pakistani and 10 Foreign Research Journals.

Literature Review

Mass Media and Agricultural Information

Farmers utilize print media in the shape of newspapers, brushers, agriculture-based digest advertising banners and electronic media including television and radio and as well as interpersonal communication. Similarly, mass media outlets, including electronic, print and digital media, are playing different roles in the agriculture sector of Pakistan.

Electronic Media and Agricultural Information

Television has an important role in the dissemination of agriculture-related information and adopting innovations, but the availability of television in those areas is essential whereas, the other communication channels also have a vital role in the diffusion of innovations**.** Irfan et al. (2006) concluded that the majority preferred television followed by radio and print media as a source of agricultural information; the respondents ranked TV, radio and print media in 1st, 2nd and 3rd position respectively for information seeking.

Various communication channels play their role in spreading awareness in society regarding agricultural activities. (Haider, 2015) stated that radio is the best channel of communication spreading useful information about farm practices in the community. Particularly, the local radio plays an important role in agricultural development. Okwu, Kuku, & Aba (2007) identified the effectiveness of radio programs. The study concluded a large number of farmers used to listen to agriculture programs on radio particularly; the programs regarding plant protection are more popular whereas, some listeners use radio for information about livestock. According to Nazari & Hasbullah (2010), Radio has played a vital role in the development and farming systems. Social media technology is being used in every sector of life to keep knowledge about new ideas and innovations. Similarly, the mobile phone is a populous

communication device for getting useful information regarding agriculture. Some mobile applications have been introduced by governmental agencies for the provision of relevant information. Jehan et al. (2014) studied that mobile phones, a type of new digital media, were the cheaper medium of participate in the discussion and sharing experiences with each other within the farmers community and as well as to get the latest information about goods prices directly from markets.

Pakistan television has great potential to disseminate agricultural information amongst farmers throughout the country due to its presence in every corner of the state, but its telecast on agriculture could not attract farmer's attention. Chachhar et al. (2012) investigated the respondents' preference for television watching for agricultural-related knowledge-seeking as compared with types of programs aired on television.

Print Media as Source of Agricultural Information

Print media in different shapes has an important role in the dissemination of agricultural information. Farmers use various types of print media, including newspapers, pamphlets, banners, wall chalking, monthly magazines etc. Farooq et al. (2007) concluded that brushers as the best medium of seeking agricultural information, whereas posters and newspapers or books/magazines have less importance in disseminating the information amongst farmers. Similarly, Oladeji, J. (2011) investigated the farmers' perception of the agricultural advertisements in newspapers, results of the research revealed a significant relationship between farmers' attitude and perception of agricultural advertisements in newspapers.

According to Rehman et al. (2013) print media was most liked sources for seeking agricultural information by the farmers however, there were some certain factors which were affecting the usefulness of print media in terms of quality of relevant information, including the timely flow of information, the interest of farmers in different ways whereas, the lower literacy rate was major cause to make the print media less effective in agriculture sector. Ovwigho, B., & Orogun, P. (2013) stated that in spite an important sector of the state, print media gave minor coverage to agricultural news stories in 2009.

Interpersonal Communication in Agriculture

Farmers of the rural areas have to depend some conventional method of communication i.e state owned television (Pakistan Television) and interpersonal communication for getting information about their crop. Das, D. (2012) found that the maximum agricultural information is spread amongst farmers via interpersonal communication. Interpersonal communication is much easier way of communication even with low literacy people share their ideas and best practices related to agriculture activities. Inter personal communication develop well understandings about any innovation in the respective field.

Effective Media for Adoption of Innovations

Interpersonal communication is the most common source of the formers for the information seeking and adoption in seeding new crops. Oleas et al. (2010) described that opinion leaders play a vital role in the circulation of agriculture-related news adoption of new ways among formers. Jan. et al. (2011) stated that "friends, family members and other nearing relatives are considered as opinion leaders and influence the decisions of the society. Majority of the target sampled intend to use processed seeds, fertilizers and, pesticides. Farmers were intended to use innovations for the increase of more yields".

In order to achieve the target marketing companies deput some trained and prominent individuals to promote their products. These individuals face to face share information amongst farmers in various was like public relation campaign, field days and training workshops etc. Cheoi & Mbreia (2014) found interpersonal communication as much source of information for diffusion and adoption of zero grazing innovation in Kenya.In some areas farmers have good socioeconomic status and they can have access to new media technology these farmers obtain useful information from a latest and fast medium of communication and simultaneously disseminate amongst neighbouring farmers. Ali, S., Jan, M., & Anwar, M. (2011) stated that the latest media technology use for seeking information about agricultural activities relevant innovations have an vital role along with conventional media, variation of importance amongst different communication source was investigated, such as television was found was most common in term of effectiveness for spreading agricultural innovations in the rural areas.

Factors Influencing Effectiveness of Communication

Demographic characteristics of farmers may influence the effectiveness of communication. Chahachhar et al. (2014) concluded that there are some barriers in different shapes, primarily the lack of usage of latest information technologies and poor condition of infrastructure in far-flung areas of under developing countries. With the passage of time, farmers are moving to use new media technology for seeking agricultural information Grag et al. (2014) studied that "the majority of the respondents were satisfied with the present timing of the farm broadcasts and they wanted duration should be increased to one hour, and they preferred the broadcast in the dramatized preferably in the local language. Similarly, Ariyo et al. (2013) found out mass media as an effective tool of communication for spreading agricultural-related technologies amongst farmers. However, the were some certain causes to decrease to the effective practice of using mass media for agriculture. These causes were low level, education level and lack of other basic facilities in the respective area

Discussion

The assessment of available literature showed that farmers used different communication sources for seeking agricultural information. According to Memon et al. (2014), a larger portion of respondents in the area under research used conventional sources of media. According to them, communication sources for agriculture-related information were available, However, for appropriate use of information technologies farmer should have been trained by the concerned department. Nzonzo, D., & Mogambi, H. (2016) Concluded that farmers of paddy crop used information communication technology as communication source despite lack training of this technology adoption and also to enhance knowledge about rice production and to access agricultural market.

Pakistani farmers utilized interpersonal communication in many shapes such as, friends, neighboring farmers, change agents, extension workers for seeking agricultural information. Feder, G., & Savastano, S. (2006) reviewed available published literature on effectiveness of opinion leaders and concluded that opinion leaders with superior knowledge and experience are more effective for dissemination of valuable information and knowledge amongst other follower farmers

Conclusions

Though, the findings of the reviewed it is revealed that there are variations in findings of the related research studies due to some certain reasons like geographical, methodological and theoretical perspectives. It is depicted that different communication sources are playing an integral role in disseminating agriculture based information for betterment of the agriculture sector. However, this review found out that interpersonal communication channels in different shapes, i.e neighboring farmers, friends, field staff of agriculture department and opinion leaders were most reliable amongst farmers for seeking agriculture-related information and adoption of innovations. Whereas print and electronic media were also communication source for seeking information about agricultural information however, the use of these media was as lower scale than expectations.

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