

ENHANCING AGRICULTURAL PRACTICES: THE IMPACT OF LOCAL RADIO PROGRAMS ON SMALL-SCALE FARM EXTENSION

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ABSTRACT: The agricultural sector in Pakistan, a crucial component of the country's economy, faces challenges in terms of slow growth, largely attributed to the limited adoption of modern technology and weather-related issues. Despite its significance, the growth rate of agriculture in Pakistan has been sluggish, with the sector contributing 21.4% to the GDP and employing 42.1% of the labor force. In 2013, the growth rate in agriculture was 3.3%, down from 3.5% in the previous year, as reported in the Economic Survey for 2012-2013. This underperformance in agriculture, especially when compared to other countries, is primarily due to yields falling short of their attainable potential.

To address this issue and boost agricultural productivity, farmers need to embrace new methods and technologies on their farms. The adoption of these innovations is crucial for increasing actual output and improving the overall performance of the sector. In this context, mass media plays a pivotal role in educating and informing farmers through various programs and channels, including television, newspapers, and radio. Agricultural extension workers have traditionally played a significant role in disseminating valuable information to small-scale farmers. However, mass media platforms offer distinct advantages due to their extensive reach and wide coverage. Mass media platforms serve as catalysts by introducing farmers to new information, prompting them to seek more detailed insights from peers, extension workers, and friends.

Keywords: Pakistan agriculture, agricultural growth, modern technology, mass media, agricultural extension, productivity.

INTRODUCTION

Pakistan is an agriculture country as it is a largest sector of our economy. Agriculture contributes to 21.4 % to GDP and employs 42.1 % of labor force. The growth of agriculture remained slow due to non adoption of modern technology and weather conditions. The growth of agriculture in 2013 accounted at 3.3 % while in previous year it stood at 3.5 & (Economic survey, 2012-2013). In spite, the importance of agriculture sector the growth of this sector remains slow. When compared to other countries the growth of agriculture in Pakistan remains slow (Khan, 2002). The actual yield is lower than the attainable yield from farms is the basic reason behind this slow rate. So, it is the basic need of farmers to adopt new method and technologies in their farms to increase actual output. In this context, media plays a vital role to educate farmers through their programs. (Mohy-ud-Din, 2011) states that agricultural extension workers play a prominent role in small scale farm extensions through providing useful information to farmers. But the mass media such as TV, news papers and Radio has its own importance. Mass media hold a high position as compared to extension workers due to their wide coverage. Mass media stimulate farmers about new information and

then farmers got to their peer, extension workers and friends to get more detailed information (Behrens, 1984).

The cost of educating farmers through mass media is low as compared to extension workers (Oakley, 1985) but the on time feedback cannot be generated through mass media (Muhammad, 2005). In mass media mechanisms TV, news papers, research publications and Radio plays a vital role in disseminating agricultural information (Muhammad, 2006). But radio is a more power full instrument for liberation of fast information due to its vast coverage in local areas. In Pakistan, there is monopoly of Radio since 2002 but the Govt of Musharaf took step to reduce the monopoly and through PEMRA issues license to private radio known as FM or Local radio. This led to 40 FM radio emergences in early but now the figure is in thousands. (Abbas et al., 2003), states that in central Punjab most of farmers are exposed through Radio and Television. Radio is proved as a strapping tool for dissemination of agricultural information Chapman et al., 2003: Nakabugu, 2001). In Pakistan local radio are dominating in rural areas and seen as a tool information exchange. This study aim is to examine local radio agricultural programs in term of farm extensions. The study also provides a deep insight about which mass media is preferably accepted by the farmers.

The study also examines the characteristics of small farmers in term of land ownership. The main objective of the study is to explore the study statement *“More Farmers listen, More they adopt”*

LITERATURE REVIEW

Pakistan is an agro based economic country. Pakistan has geographical area of 79.61 million out of this 22.17 % is cultivated which is 39 % of the total area. Almost 65 % of population lives in rural areas. Agriculture sector contributed 53 % to GDP and its share of export earning is 57 % (Ministry of finance, Pakistan). Pakistan agriculture sector growth rate is declining from recent few decades. Farmers need market information to improve their farm production. Dissemination of information to farmers can increase the output of their farms. Proper market information is the basic need of farmers because it enables farmers to make relevant and accurate decisions (Ozowa 1995 & Leroux et.al, 2001). Market information enables the farmers to make decision regarding what to produce, How to produce and whether to store the products or not (FAO, 2005). Radio is a strong tool in disseminating the agricultural information. In developing countries market information initiative are the part of agriculture and agro business strategies that government paid attention (Haerah et.al, 1979 & Lutz, 2006).

In developing countries radio act as a basic tool for communicating in rural area population (FOA, 2001). (Hussain, 1997) states that radio and TV are the most effective tool of communication. The study of (Wedell, 1986) reveals that radio is a dominating tool for change in culture, development, health issues, and for better agricultural development. A study conducted by Atkin (1987) in Canada explore that more than 100 million villagers listen farm based local network radio. Rein (1988) states that regional radio programs are favourite among people. The study result of (Kelsey and Hearne, 1955) states that the villagers who don't participate in social meetings and rarely use technology meet their informative needs through radio. The study results of (Arokoyo, 2003) conducted in Nigeria proved that video, TV and radio are the major sources of farmers to get information. Information sources for farmers are TV, radio, publications, practical education, news papers, agriculture exhibitions and extension workers (Ekoja, 2003).

Radio agricultural programs are timely and can extend message to target audience irrespective of location, socio economic issue, topography and distance (Omenesa, 1994). Radio programs has been used for dissemination of agricultural information for better farmers performance (Enitan, 1988) both in developed and under developed countries.

Small scale farm extension

Farm extension means to enlarge the new innovations in the ground of agriculture by the farmers. For improvement in agriculture sector agriculture extension services should be provided to farmers (Mohy-ud-Din, 2011). Traditionally, agriculture extension is undertaken through extension workers. Ozowa (1995) conducted a study in Nigeria and states that agriculture marketing information is provided by ministry of Agriculture through extension workers and broad cast media. The study outcomes of (Rasak, 2012) disclose that radio agriculture broadcasting is effective for farmers and must be undertaken on long duration for agricultural extension.

In Pakistan, most of the farmers are small because they hold a few hectares.

Table no.1 Farm ownership in Pakistan

Size of farms (Hectares)	Farms			Cultivated area %
	No “000”	%	Area “000” Hectares	
All farms	6620	Nil	20438	Nil
Got farms	Less than 500	Nil	31	Nil
Private farms	6620	100	20470	100
Under 0.5	1290	19	363	2
0.51-1	1099	17	821	5
1-2	1425	22	1981	11
2-3	966	15	2257	12
3-5	891	13	3443	18
5-10	580	9	3891	20
10-20	261	4	3324	16
20-40	78	1	1955	8
40-60	15	Less than 0.5	689	3
More than 60	14	Less than 0.5	1683	5

Source: Govt of Pakistan (2005), Federal Bureau of statistic, Islamabad

The report of *federal Bureau of statistic of Pakistan* (2005) defines the ownership of farms in Pakistan (see table no.1). According to this table Pakistan has estimated 6620 farms. The 86% farms are less than 5 hectares and 95% are less than 10 hectares. It means small scale farmers are dominating in our country and most of the yield is produced by small farmers.

Because most of the farmers are small land holders that’s why study is conducted on small farmers.

METHODOLOGY

A quantitative approach is adopted to check the role of local radio agricultural programs on small scale farm extensions. (Haider, 2014) states that quantitative approach is quantifiable, apparent and be able to manipulate. A survey is conducted on farmers of District Layyah who hold less than 10 hectares land. Survey is used because it is provide the main idea about the research topic and based on questionnaire which is provided to respondents to show their answers (Malhotra, 2006 & Haider, 2014). A set of 170 questionnaires was scattered between small farmers of District Layyah and only 150 questionnaires were collected confidentially.

Convenient sampling method is used to overcome the cost and time constraints. Analysis of data collected through well designed questionnaires is done through SPSS (20).

FINDINGS

The population of this study comprises of 150 small farmers from district Layyah. The finding of the study reveals that TV and Radio is the most dominating tool for dissemination of agriculture information's. From table no.2, it is observed that Radio is the most accepted in rural area as (94.7 %) are listening radio agricultural programs. On the other hand TV also emerges as a strong tool because (85%) farmers are watching agricultural programs. It is also observed that 56.7 % farmers also get information from other farmers. In district Layyah only 14 % farmers get information from research publications. (See table no.2).

Table No.2

Which media do you like more for getting agricultural information									
	Very Much	Much	Little	Cumulati					
Publications	21	14.0	14.0	14.0	Farmers	64	28.7	28.7	56.7
TV	43	28.7	28.3	85					
Radio	42	15.3	9.7	94.7					
Extensionsts	8	5.3	5.3	100.0					
Total	150	100.0	100.0						

Farmer's of District Layyah are more exposed by Radio agricultural programs. In table no.3 percentage distribution if study items is shown. From table np.3, results appears as SA (Strongly agree) and A (Agree) as more preferable options for farmers.

Table no.3: Key Items used to check role of local radio agricultural campaigns

	Strongly Dis agree	Disagree	Neutral	Agree	Strongly agree
I frequently listen radio agriculture programs.	10.4	9.0	33.1	44.3	
radio agriculture programs.					
I usually listen radio to get agriculture programs.					
I get more information about agriculture innovation	10.4	9.0	33.1	44.3	
Radio agriculture programs help me to adopt new	5.6	13.4	8.5	42.1	30.4
I get information about new seed varieties from radio	2	9.4	11.2	23.1	50.1

11.5 13.4 9.3 29.1 36.7

I get information about new pesticide varieties from radio campaigns	3.1	8.4	7.9	43.1	37.5
I get information about new lazer technologies from radio campaigns	5.4	11.4	2.3	33.1	47.8
I practice new methods of farming in my farms by listening radio agriculture programs.	2.4	11.2	8.5	38.4	39.5
Radio is best media for acquiring agricultural information's.	3.7	9.4	7.0	21.5	58.4
Radio agricultural campaigns motivates me regarding adoption	3.9	5.4	13.0	40.1	37.6
Radio help me in making decisions about adopting new innovation	4.2	9.8	7.4	42.5	36.1
Radio affect my agricultural purchasing	7.0	13.4	12.1	22.2	45.3
I adopt new farm technologies after listening radio agriculture campaigns	8.9	13.4	8.0	11.6	58.1
Radio agricultural campaigns help me in purchasing new varieties of Pesticides	10	13.4	9.3	38.3	29.0
Radio programs provides me help to adopt new agricultural innovations	7.2	8.6	10.4	32.7	41.1

This is in common show that farmers are accepting radio agriculture programs on a preferable way. In most cases, this table shows that radio agriculture programs have significant impact on farm extensions of small farmers of District Layyah.

DISCUSSION

The study discussion reaffirms the study statement “*More Farmers Listen, More they adopt*”, discuss the role of local radio agricultural programs on the small scale farm extensions and also include resolved remarks of the researcher. The findings of the study reveal that most of the farmers listen agricultural programs on the radio to get new information's (See table no.2).

The study also explore that most of the farmers in Pakistan hold small land ownership. Majority of farmers in Pakistan hold less than 10 hectares of land (See table no.1). They study results also provide a deep look on how local radio agricultural programs play a role to adopt new technology by the farmers of District Layyah. The study explore that most of the farmers listen radio agriculture programs because it provide them new information about agriculture. Farmers of the District Layyah adopt new technology, new varieties of seeds because of radio programs. Findings of the study also prove that local radio helps farmers to adopt new information about agriculture and hence plays a vital role in exercising new methods and technologies in farms. It is also explore that farmers of District Layyah adopt new farm practices through agricultural campaigns of local radio. (See table no. 3).

Local radio helps farmers in their purchasing of agricultural commodities. The study results are in favor of the study statement “*More farmers listen, More they adopt*”. Local radio has a significant role in small scale farm extension as farmers adopt new technologies and farm practices through this medium. The study findings explore that local radio plays a vital role in small scale farm extensions.

Limitations & Future Direction

This study is undertaken on the farmers of District, Layyah. The results are not widely generalizable. The study focus is only local Radio but the TV and other media also has its own importance. It is recommended that future research must be undertaken by taking into account other mass media tools and with wide sample. There must be a study on the role of extension workers in future.

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