



Working Effectiveness of Dissemination Channels as Perceived by Potato Growers

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Abstract

A research can also reveal the cooperative effectiveness of Agencies such as evaluation will lead to discover the weakness and strengths for further improvement of this program. The present study was designed in 2009 especially to see the effectiveness of the working of agricultural extension staff as perceived by farmers in district Okara-Pakistan. The data were collected with the help of a specifically designed and pre-tested interview schedule and total sample was 300 respondents. The results showed that most 45.0% of the respondents belonged to the old age (31-40 years) category and most 30% of the respondents were above illiterate. An overwhelming majority 77.33% of the respondents was in fall radio category. Whereas, only 29.33% of the respondents reported that they had contact with Extension Field Staff. An overwhelming majority 74.33% of the respondents indicated lack of mobility as the major constraints in approaching agricultural extension education services. It was concluded that different mass media were not fully utilized in the area which hindered not only awareness level of the respondents but also adversely effect the adoption level regarding the latest production technology related agriculture sector. On the basis of conclusions it was recommended that for first of all the educational level of the study area should be increased and Government should ensure adequate availability of rural infrastructure facilities to enable more of the dwellers cultivate the habit of utilizing medias channels as source of information in agriculture production.

Keywords:
Agriculture, Potato, Farmers, Information, Communication, Channels

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INTRODUCTION

By 2010 (Government of Pakistan), the population is estimated to have reached 169.90 million. Thus in roughly three generations, While Pakistan has more mouths to feed, more families to house, more children to educate, and more people looking for gainful employment. It is expected that Pakistan will become the fourth largest nation on earth in population term by 2050. Pakistan is a developing country and agriculture is the mainstay of its economy. Its contribution to GDP is nearly 20.9%, and 43.4% of the total employment is generated from agriculture. This sector not only fulfils the daily living requirements of population of the country but is also the main feeder of raw materials to all industries (GOP, 2007). Agriculture remains the dominant source of employment in Pakistan and approximately 66% of the country's population live in rural areas and directly or indirectly relies on the agriculture sector for their livelihood. Pakistan is a federation of four provinces where the provincial governments are primarily responsible for agricultural research and extension activities. Several extension education program/approaches, designed primarily to improve the living standard of rural people through increased agricultural production and improved farm income, have been tried. Crop yields in Pakistan are generally low as compared to the yields of many other developing and developed countries. Moreover the average yields of the major crops are low than their potential agricultural production in Pakistan is affected by a number of factors including lack of continuity in agricultural policies, programs agricultural education, research and extension activities, buyer's and middleman "Mafia", lack of necessary infrastructure for farm exports, deficient management and marketing skills, and unproductive tenancy systems, etc. (NRSP, 1999).

The available technology can be transferred through agricultural extension field staff, because agriculture extension is one of the means available to help alleviate poverty and improve food security and also enhancement the agricultural production and uplift the rural community. It promotes the transfer and exchange of innovation

that can be converted into functional knowledge, which is instrumental in helping to develop enterprises that promote productivity and generate income in the present climate of exchange. Agricultural extension is a unique service, which helps to provide small farmers and the rural poor living in remote areas an access to the agriculture innovation. While it can also provide these populations with services to increase their productivity (World Bank, 2003). It is assumed that modern technology available at technology producing centers but not effectively transferred to the ultimately users. So, emphasis should be laid upon the most modern agricultural techniques which were possible by the dissemination of agricultural information among the farmers (Butt, 2002). For the dissemination of these modern technologies extension agencies utilize different methods like individual, group and mass media. Mahmood and Sheikh (2005) stated that creation of awareness is the first step towards the adoption process and enhancement of the agricultural production (Suman, 2003; Yawson et al., 2010).

The present study was designed especially to see the effectiveness of the working of dissemination channel such as radio, TV, agricultural extension staff etc. as perceived by farmers in District Okara, Punjab, Pakistan.

MATERIALS AND METHODS

The Okara District is famous for its fertile lands, peaceful natural environment and green fields of potato, sugarcane, wheat, rice and maize crops. Okara district comprises three tehsils namely Okara, Renala Khurd and Depalpur. All the three tehsils were selected for the study on the following grounds.

- I. The educational level in all the selected tehsils was very low.
- II. All the tehsils were similar in socio-economic and agricultural conditions
- III. Traditional norms and male dominance in whole the area prevails.

Selection of sample for the study

As the number of villages in all three tehsils varies too much, therefore, researchers decided to give equal chance to all tehsils and on these

bases it was decided that hundred respondents from each tehsil were selected randomly in the figure I. For the selection of villages lottery method was adopted (Thakur, 2003) and names of villages were written on pieces of paper, then tehsil wise ten tickets were selected. Thus making a total of 30 villages, the respondents were selected through simple random sampling method (Ogunjuyigbe, 2005). A well structured interview schedule having open and close-ended questions was prepared (Acharya et al., 2005; Tucker et al., 2005). Out of total these villages 10 farmers were selected randomly in each village at each tehsil. Thus the total sample was 300 respondents. The data were collected with the help of a specifically designed and pre-tested interview schedule. The reliability of data was checked through Cronbach's alpha. The data thus collected were analyzed by using computer program (software), Statistical Package for Social Sciences (SPSS) for reporting results and drawing conclusions.

1. Tehsil Depalpur:

10 Village x 10 Farmers = 100 respondents

2. Tehsil Renala Khurd:

10 Village x 10 Farmers = 100 respondents

3. Tehsil Okara:

10 Village x 10 Farmers = 100 respondents

Total Sample = 300 Respondents

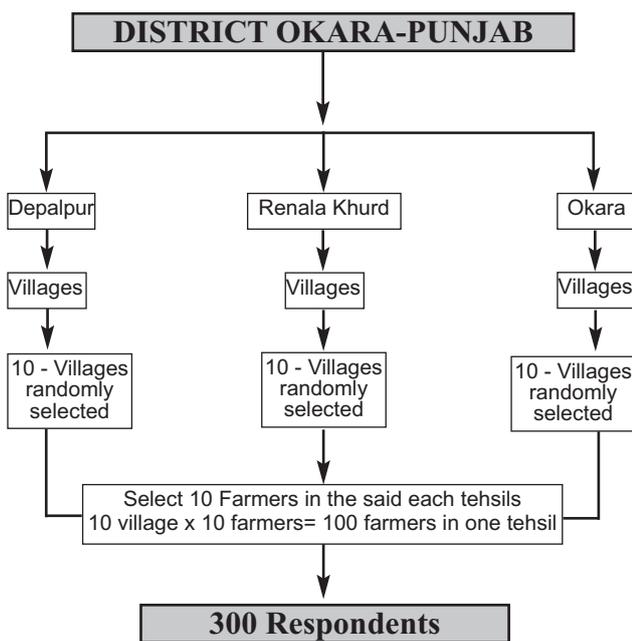


Figure 1

RESULTS AND DISCUSSION

Respondents were interviewed to find out their perceptions about agricultural extension education services in the form of effectiveness of dissemination channels in tabulated, figure and presented in tables. Table 1 reveals that less than half (45.0%) of the respondents were 31-40 years of age. However, 25.0% of the respondents were of upto the age of 30 years. Only 30.0% of the respondents were 41 and above year of age. Table 1 also indicates that a 64.33% of the respondents had an education from primary to matric (ten year education) and above level. However, rest of the respondents (35.67%) was illiterate. The educational level of the study area was very low higher. However, only 12% of the respondents were primary to middle. More or less similar results in the age and education were also observed by Fabiyi et al. (2007). The data presented in table 1 reveals that 55.0% of the respondents had small landholding upto 12.5 acres followed by medium 31.67% up to 12.5-25 acres and large holders were 13.33% owned land above 25 acres. The results of this data confirmed by Irfan (2005) and Hassan et al. (2005) who found that majority 68.3% of the respondents had upto 12.5 acres of land, 20.0% owned 12.5 to 25 acres and 11.7% of the respondents had above 25 acres of land. The sequence of owning is same as of present research study. Table 2 depicts that respondents were very in favor of agricultural dissemination services for them as 93.33% of the respondents were agree, followed by 6.00% who were agree. On the other hand, with the statement that farmer perception about the dissemination channels essentially need agricultural extension services, only 0.67% respondents disagreed. So we can say that majority of the respondents was in favor of the agricultural dissemination services for rural women. In this connection Sailaja and Reddy (2003) reported that for consistent growth of agricultural production and stabilization of income in agriculture, it was necessary to involve women in increased adoption of improved farm practices and Medias. This could be attained through effective training and extension dissemination channels programmes

Table 1: Distribution of the respondents according to the age, education and land holding (n=300 respondents)

Characteristic	frequency	Percentage
Age		
Upto 30 year	75	25.00
31- 40 year	135	45.00
41-above year	90	30.00
Education		
Illiterate	107	35.67
Primary	78	26.00
Middle	67	22.33
Matric & above	48	16.00
Family land holding		
Small (up to 12. 5 acre)	165	55.00
Medium (12.5-25 acres)	95	31.67
Large (above 25 acres)	40	13.33

specially designed and based on technological felt needs of farmer to enhance productivity. Table 3 shows that simple to large majority (65.0-91.67%) of the respondents were aware of potato varieties like Desiri, Santey and Diament respectively, whereas, awareness about other varieties was at low level. On the other hand, adoption level for all varieties was low except Santey which was adopted by 71.67% of the respondents. Table 4 reveals that radio was the most used mass media for the dissemination of potato technology and utilized by 77.33% of the respondents. The other method which was benefited by 46.0% of the respondents was meetings. Whereas, other Medias were utilized by lesser number of respondents. However, internet was used by negligible number (05.0%) of respondents. As radio was less expensive and portable therefore use by both literate and illiterate persons, whereas internet was a new technology and due to its pre-requisites less available in the study area therefore its utilization was very low. Table 5 an overwhelming majority 74.33% of the respondents indicated lack of mobility as the major constraints in approaching

agricultural extension education services with mean 0.98 and S.D. 0.27. Mobility means motorcycle, car and any vehicles. There may be less availability of vehicles to access these agricultural extension services in the form of dissemination channels. Moreover a large majority 71.66% of the respondents indicated lack of access to credit as the core constraint in approaching agricultural extension education dissemination services having mean 0.92 and S.D. 0.17. Shelly and Costa (2000) also indicated lack of credit facility and lack of resource availability as the main constraints which are being faced by rural peoples involved in the agricultural development programme in Bangladesh. More or less similar results were also observed by Raju et al. (2001), Sadaf et al. (2005) and FAO (2001).

CONCLUSIONS AND RECOMMENDATIONS

It was concluded that different dimensional channels were not fully utilized in the area which hindered not only awareness level of the respondents but also adversely effect the adoption level regarding the latest production technology related to potato. Following recommendation has been made: On the basis of conclusions it was also recommended that for first of all the educational level of the study area should be increased so as farming community is able to get benefit from printed material. Govt. also arranges the video vans to create awareness and enhancement the education system each Tehsil level for the betterment in agricultural development. Government should organize seminars and workshops for both public and private sector, for creating awareness about more advanced and sophisticated production technology of agriculture. To increase

Table 2: Distribution of the respondents according to their perception about the dissemination channels. (n=300 respondents)

Statements	Disagree		Somewhat agree		Agree	
	f	%	f	%	f	%
Agricultural extension dissemination channels	2	0.67	18	6.00	280	93.33

Table 3: Distribution of the respondents according to their awareness and adoption of the recommendations regarding different varieties of potato (n=300 respondents)

Varieties	Awareness		Adoption	
	f	%	f	%
Desiri	195	65.00	100	33.33
Cardinal	60	20.00	40	13.33
Roberz	40	13.33	25	8.33
Ustericks	65	21.67	35	11.67
Berna	50	16.67	20	6.67
Caroda	75	25.00	55	18.33
Valja	80	26.67	25	8.33
Diamint	275	91.67	75	25.00
Ejaks	35	11.67	-	-
Santey	250	83.33	215	71.67

Table 4: Distribution of the respondents according to the use of multidimensional channels in the promotion of latest technology for potato production (n= 300 respondents)

Mass Media	f	%
Radio	232	77.33
Meetings	138	46.00
Agri. Deptt.(Extension Field Staff)	88	29.33
Key Informant	88	29.33
TV	62	20.67
Newspaper	50	16.67
Campaign/Focus Group etc	40	13.33
Print Media	25	8.33
Internet	15	05.00

Table 5: Constraints faced by them in agricultural dissemination channels services (n=300)

Constraints	f	%	Mean	S.D.
Mobility (any vehicles)	223	74.33	0.98	0.27
Access to credit	21.5	71.66	0.92	0.17

the use of computer and internet both public and private sector should create awareness and establish telecenters for the dissemination of modern potato technology that ultimately results in the uplift of potato production.

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REFERENCES

- 1- Acharya, S., E. Yoshino, M. Jimba & S. Wakai. (2005). Empowering rural women through a community development approach in Nepal. *Community Development Journal Advance Access publication*, 1-13.
- 2- Butt, S.A. (2002). Role of television in the dissemination of agricultural technologies among the farmers of tehsil Faisalabad. M.Sc (Hons.) Agri. Ext. Thesis, Univ. of Agri., Faisalabad.
- 3- E. F. Fabiyi, B. B. Danladi, K. E. Akande & Y. Mahmood, (2007). Role of women in agriculture development and their constraints: A case study of Biliri local Government area, Gombe state, Nigeria. *Pakistan Journal of Nutrition* 6(6). 676-680.
- 4- FAO, (2001). Research and Extension: A gender perceptive. Women in Development Service (SDWW): Women and Population Division, Rome, Italy.
- 5- GOP. (2007). Economic Survey of Pakistan. Finance Division, Economic Advisor's Wing, Islamabad, Govt. of Pakistan, 166.
- 6- GOP. (2010). Economic Survey of Pakistan. Finance Division, Economic Advisor's Wing, Islamabad, Govt. of Pakistan.
- 7- Hassan, M. Z. Y., A. Majeed, & I. U Rehman. (2005). Correlation of demographic characters of the respondents with usefulness and effectiveness of technical trainings as organized by PRSP in district Muzaffargarh. *The Indus Cotton*, 2(3), 219-231.
- 8- Irfan, M. (2005). Comparative effectiveness of mass media in the dissemination of agricultural technologies among farmers of Lahore district. M.Sc. (Hons) Agri. Ext. Thesis, Univ. of Agri., Faisalabad.
- 9- Mahmood, M. A. & A.D. Sheikh. (2005). Crop yields from new technologies. "DailyDawn" March 28-April 3, 2005, III.
- 10- NRSP (1999). Training module on production technology of cotton for small farmers, Punjab Agricultural Task Force, Punjab.
- 11- Ogunjuyigbe. P. O., A. Akinlo & J. A. Ebigbola, (2005). Violence Against Women: An examination of men's attitudes and perceptions about wife beating and contraceptive use. *Journal of Asian and African Studies*, 40(3), 219-229.
- 12- Raju, K. A., G. S. Roy, T. S. Kamala, & Rani, M. S. (2001). Constraints and Suggestions for Effective Implementation of Farm Women Development

Programmes. MANAGE Extension Research Review, India.

13- Sadaf, S., Javed, A. & Luqman, M. (2005). Constraints faced by rural women in approaching agriculture extension services: A case study of district Faisalabad, Pakistan. *Indus Journal Biology Science* (2), 483-88.

14- Sailaja, A. & Reddy, M.N.(2003). Changing needs of Farm Women in Agriculture, MANAGE Extension Research Review. National Institute of Agricultural Extension Management, Rajendranagar, Hyderabad, India, 164–75.

15- Shelly, A.B. & Costa, M.D. (2000). Women in Aquaculture: Initiatives of Caritas Bangladesh. Bangladesh Institute of Development Studies (BIDS), Bangladesh, 77-87.

16- Suman, M. (2003). Role of Communication Channels and Constraints in Adoption of Soil Conservation Technologies in Food- fodder Production. In watershed based rainfed soils of bundelkhand. International Conference on Communication for Development in the Information Age: Extending the Benefits of Technology for All. 07-09 January 2003 Eds. Basavaprabhu Jirli Editor in Chief, Diapk De, K. Ghadei and Kendadmath, G.C., Department of Extension Education, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, (India).<http://agropedia.iitk.ac.in>

17- Thakur, D. (2003). Research methodology in Social science. Deep and Deep Publications (Pvt.) LTD. Rajouri Garden, New Dehli,475.

18- Tucker, J.S., Wenzel, S.L., B.Straus, J., Ryan G.W. & Golinelli. D. (2005). Experience interpersonal violence perspectives of sexually active, substance-using women living in shelters and low income housing. *Violence against women*, 11(10), 1319-1340.

19- World Bank, (2003). Operationalizing Agricultural Extension Reforms in South Asia- A Case of Pakistan. Country Paper: Regional Workshop, Delhi, India.

20- Yawson, D.O., Armah, F. A., Afrifa, E.K.A., & Dadzie, S.K.N. (2010). Ghana's Fertilizer Subsidy Policy: Early Field Lessons from Farmers in the Central Region. *Journal of Sustainable Development in Africa* Clarion University of Pennsylvania, Clarion, Pennsylvania, 12 (3).