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Impact of all India radio Vyavasaya Patasala programme as perceived by the farmers in Andhra Pradesh

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Abstract

The study was conducted during the year 2021-22 with an objective to assess the Impact of All India Radio Vyavasaya Patasala Programme (schools on Air). All the 13 districts in the state of Andhra Pradesh were selected for the study. A Variety of the topics were broadcasted through AIR programme starting from selection of variety including best management practices to till marketing of the produce relevant to agriculture and allied fields. A purposive sampling procedure was employed to select the sample. Results revealed that information broadcasted in AIR Vyavasaya Patasala programme was comprehensible (90.67%), trustworthy (86.67) and higher practicability (85.33%) as perceived by the farmers. Impact of the programme was measured in-terms of change in knowledge and adoption pertaining to agriculture and allied practices. As a result of the programme, more than half of the farmers had medium (54.00%, 58.67%) followed by high (31.33%, 24.00%) levels of knowledge and adoption of practices. Change in knowledge was experienced among the farmers through the various modes of presentation such as discussion followed by question and answers type. There were few impediments encountered by the farmers with highest mean score *viz.*, publicity of the programme (55.08), accessibility (51.57%) and poor signals at village level in broadcasting the programme

Keywords: Adoption, broadcast, information, knowledge, perception and practices

Introduction

Digitalisation in agriculture enhances the efficiency and effectiveness of the farmers in short time. But the challenge lying at present days is a huge amount of information on agriculture has been pumping through social media day by day, it is difficult for a common farmer to choose an authenticated information source for updating his or her knowledge and putting into practice. Inefficiency in the technology impacts the farm productivity and lower the farm returns. As per the agriculture senses, 2015-16 about 86.08 per cent of farmers in India are having less than 1 to 2 hectares of the land (Ministry of Agriculture & farmers welfare government of India, 2019) ^[9] cannot experiment any technology unless it is widely acceptable among them. One of the key factors influencing uptake of agricultural technology is the exposure of farmers to the reliable information source. Farmers' interest in implementing new strategies to increase their production is piqued when they have access to reliable information.

In the present context of mass media for communication of farm information, what is needed is that an appropriate content, process, structure and system that are to be pragmatically developed (Biswajit and Siddharthe 2012) ^[2]. A credible source of information stimulates farmers' interest in adopting innovative measures that aim at increasing their production (Kakade, 2013) ^[7]. All India Radio (AIR) is such one that having largest broadcasting organisations in the

world. Since green revolution, AIR has been helping farmers to practice from unidirectional approach to multi-directional approach in integrated manner in the area of agriculture and allied sectors (Ravi, 2013) ^[15]. AIR is a vibrant tool for mass dissemination of information and transfer of technology to the farmers and other stakeholders spread across the entire country in regional languages and local dialects. In the state of Andhra Pradesh, AIR has started an innovative programme namely Vyavasaya Patasala (Farm school on AIR) in collaboration with state universities by involving subject wise experts from the agriculture and allied sciences to deliver location specific and need based talks for the benefit of the farming community. The programme has the advantage of reaching a wide range of audience including illiterates with weekly interval. In-order to assess the impact of the AIR Vyavasaya Patasala programme as perceived by the farmers, the present study was formulated.

Materials and Methods

The investigation was carried out in all 13 districts of Andhra Pradesh during the year 2021-22. Farmers who were the members of District Level Coordination Committee (DLCC) of District Agricultural Advisory Transfer of Technology Centres (DAATTCs) and members of Scientific Advisory Committee (SAC) of Krishi Vigyan Kendras (KVKs) purposively selected for this study. Selected

farmers having medium to high exposure to AIR vyavasaya patasala programme. In the state of Andhra Pradesh there are 13 DAATTCs, 13 KVKs under Acharya N.G. Ranga Agricultural University, 3 KVKs under NGOs and 1 KVK under Sri Venkateswara Veterinary University were taken into the study for select the sample. Thus, a total of 30 institutions, from each institution 5 farmers were selected purposively. accordingly, a total of 150 progressive farmers were selected for the study. Expost-facto research design was employed. Farmers were interviewed with semi structured interview schedule through virtual mode to assess the perception of All India Radio Vyavasaya Patasala programme in Andhra Pradesh. Data were analyzed by using statistics such as frequency, percentage, mean, standard deviation, Garrett ranking were employed to analyse the results of the study.

Five-point Likert scale was used to measure perceived effectiveness as 5 was “strongly agree”, 4 was “Agree”, 3 was “neither agree nor disagree”, 2 was “disagree” and 1

was “strongly disagree”. A higher mean score on variables indicates greater importance.

To assess the level of knowledge and adoption of the farmers, a schedule was constructed with 15 major areas pertaining to agriculture and allied fields broadcasted through the AIR programme with scoring one for yes or zero for no. Responses of the respondents about each area were recorded. Therefore, possible maximum score for knowledge and adoption, one could obtain was 15 and minimum zero. All the respondents were grouped into three categories as under on the basis of mean and standard deviation. Level of knowledge and adoption were worked out using below formulas

$$\text{Level of knowledge} = \frac{\text{topics Known}}{\text{Total no of topics broadcasted}} \times 100$$

$$\text{Level of adoption} = \frac{\text{topics Adopted}}{\text{Total no of topics broadcasted}} \times 100$$

Results and Discussion

Table 1: Perceived effectiveness of AIR Vyavasaya Patasala programme among farmers based on various factors

Sl. N.	Statements	Perceived effectiveness (n= 150)						
		SA	A	UD	DA	SDA	Mean	SD
		f (%)	f (%)	f (%)	f (%)	f (%)		
1	Information is trustworthy	44 (29.33)	47(31.33)	30(20.00)	19(12.67)	10(6.67)	3.64	1.22
2	information is comprehensible	52(34.67)	43(28.67)	27(18.00)	22(14.67)	6(4.00)	3.75	1.19
3	Practicability of the information	35(23.33)	53(35.33)	36(24.00)	14(9.33)	12(8.00)	3.57	1.18
4	Good in time of broadcasting	30(20.00)	38(25.33)	35(23.33)	30(20.00)	17(11.33)	3.23	1.29
5	High relevance to the context	24(16.00)	46(30.67)	26(17.33)	32(21.33)	22(14.67)	3.12	1.32
6	Saves time and energy of the farmer	21(14.00)	57(38.00)	36(24.00)	29(19.33)	7(4.67)	3.37	1.09
7	Accessibility of the programme	11(7.33)	17(11.33)	42(28.00)	50(33.33)	30(20.00)	2.53	1.15
8	Increases Farmers scientist linkages	25(16.67)	52(34.67)	37(24.67)	27(18.00)	9(6.00)	3.38	1.14
9	Availability of the information given in the programme	20(13.33)	46(30.67)	40(26.67)	28(18.67)	16(10.67)	3.17	1.20
10	publicity of the programme schedule	14(9.33)	33(22.00)	47(31.33)	30(20.00)	26(17.33)	2.70	1.16

SA-Strongly Agree, A-Agree, UD: Un Decided

Based on the table 1, it was articulated that Majority (90.67%) of the farmers expressed that the information broadcasted in Vyavasaya Patasala programme was comprehended followed by trustworthy (86.67%), having higher practicability (85.33%), programme was timely broadcasting (74.67%), increases farmers scientist linkages (72.00%) and saves time and energy (68.00%). The results are in conformity with Kakade (2013) [7], Longkumer and Akash (2020) [6]. They also said that majority (70.00%) of the farmers were satisfied with the content of the programme for rural listeners by All India Radio. Nazam (2000) [10] found that 68.8 per cent of the respondents became aware of advanced technology through radio/TV while extension worker, newspaper and agricultural magazines served as sources of information for 23.3, 13.3 and 3.3 per cent of respondents respectively. Njoku (2016) [12] stated while studying effectiveness of radio-agricultural farmer programme in technology transfer among rural farmers that majority indicates that radio-agricultural

programme was accessible to them, message was useful, appropriate and source of good information on agricultural production.

Whereas, it was also inferred from the table that the farmers are not satisfied much pertaining to the accessibility of the programme (53.33%) and publicity of the programme schedule (37.33%) compared to other aspects. It is possible that those farmers who are having small handset mobiles face difficult to check the schedule of the programme for choosing the selective topic whichever is relevant to their context unless the schedule is communicated through text or voice message every week as well. As AIR VPP broadcasts various number of programmes covering agricultural and allied areas, farmer cannot listen all the topics rather than most relevant to them. Agwu, *et.al* (2008) [11] who also stated that 15.70 per cent of the farmers were unsure, 7.07 per cent were dissatisfied and 3.03 per cent were very dissatisfied with the radio programme in Enugu State in Nigeria.

Table 2: Distribution of respondents based on their knowledge level of agricultural and allied fields broadcasted through AIR Vyavasaya Patasala programme

Sl. No	List of agricultural and allied fields broadcasted	Extent of Knowledge (n =150)	
		f	%
1	High yielding varieties	142	94.67
2	Improved methods of cultivation	112	74.67
3	Integrated Nutrient management practices	134	89.33
4	Integrated weed management practices	106	70.67
5	Integrated pest and disease management	114	76.00
6	Management of problematic soils	98	65.33
7	Post-harvest technologies	82	54.67
8	Agriculture implements	112	74.67
9	Entrepreneurial activities	56	37.33
10	Nutritional security	96	64.00
11	Weather based information	92	61.33
12	Mobile apps	102	68.00
13	Improved Animal breeds	109	72.67
14	Pest and disease outbreak in animals and their management practices	120	80.00
15	Cultivation of crops based on market demand	79	52.66

Results from the Table 2 conferred that majority (94.67%) of the farmers had high level of knowledge gain on high yielding varieties followed by INM practices (89.33%), pest and disease outbreak in animals and their management practices (80.00%), IPM practices (76.00%) and equally (74.67%) having knowledge on improved methods of cultivation & agriculture implements. More than half of the farmers gained the knowledge in all the fields except entrepreneurial activities (37.33%) as it is closely related to the credit availability, partnership and risk and other similar factors. Folitse *et al.*, (2016) [4] reported that farmers in Ghana wherein their gained knowledge resulted to their improved practices that they got from the Royal FM agricultural programme. In concurrence with above results, Goswamy & Kashyap (2020) [5] further reported that visible increase in knowledge was noticed among the beneficiaries after the intervention of community radio programme as their post-test score increased to 24.1 from pre-test score 9.29 with acquire in knowledge was about 14.81.

Table 3: Distribution of respondents based on their overall knowledge of recommended practices delivered in AIR Vyavasaya Patasala programme (n=150)

Sl. No	Category	Frequency	Percentage	Mean	SD
1	Low	22	14.67	10.63	2.21
2	Medium	81	54.00		
3	High	47	31.33		

According the table 3, Majority (54.00%) of the farmers aquired medium level of knowledge on various agricultural and allied fields followed by high (31.33%) and low (14.67%) level of knowledge respectively. The are results are in line with Raghuprasad (2013) [14] who has reported that almost 70 per cent of the respondents had medium and high level of knowledge through ICT tools, especially information needed at critical stages of production and

marketing information

Table 4: impact of Mode of Presentation among Listeners' knowledge (n= 150)

Sl. No.	Presentation mode	Change in knowledge		
		High	Medium	Low
1	Question-answer / interview type	52 (34.67)	61 (40.67)	37 (24.67)
2	Discussion presentation	57 (38.00)	69 (46.00)	24 (16.00)
3	Straight talk	29 (19.33)	36 (24.00)	85 (56.67)

Values in parentheses are percentages

A critical observation of the study revealed from the table 4 that more than one third (38.00%) of the farmers had experienced the change in knowledge at high level through discussion mode of presentation followed by question-answer type (34.67%) and straight talks (19.33%) in order of highest to the lowest as an impact of Vyavasaya Patasala programme. The results of this study revealed that discussion presentation as the first and debate as the least impacted mode of presentations as experienced by the farmers.

Similar results were noticed by Kakade (2013) [7]. He found that the farmers preferred discussion presentation in radio programmes as the first choice followed by question - answer session, dialogue and straight talk as per their impact. Correspondence to the above results, Manoj kumar *et.al* (2019) [8] inferred interview with progressive farmer was the most preferred mode of presentation which was followed by discussion, interview with specialist, and success story, question answer and straight talk. Farmers preferred debate as the last option as it generally makes listeners confuse most of the time to which argument they can support.

Table 5: Distribution of respondents based on their adoption level of recommended practices broadcasted in AIR VP programme

Sl. No	Topics broadcasted in air Vyavasaya Patsala programme	Extent of adoption (n =150)	
		f	(%)
1	Cultivation of High yielding varieties	135	90.00
2	Practicing of Improved methods of cultivation	106	70.67
3	integrated Nutrient management practices	108	72.00
4	Practicing of integrated Weed management practices	95	63.33
5	Practicing of integrated Pest and disease management practices	101	67.33
6	Management measures for reclamation of problematic soils taken up	80	53.33
7	Post-harvest technologies taken up	73	48.67
8	Usage of Agriculture implements	98	65.33
9	Entrepreneurial activities taken up	41	27.33
10	Nutritionally cautious	89	59.33
11	Carrying agricultural operations-based on weather updates	75	50.00
12	Usage of Mobile apps	69	46.00
13	Improved animal breeds	95	63.33
14	management practices taken up during disease out brake in animals	104	69.33
15	Cultivation of crops based on market demand	70	46.67

Results conferred from Table 5 that Farmers fell on the few fields that they were influenced to adopt after having listened the AIR VPP such as Cultivation of High yielding varieties (90.00%), integrated Nutrient management practices (72.00%), Practicing of Improved methods of cultivation (70.67%), management practices taken up during disease out brake in animals (69.33%), Practicing of IPDM practices (67.33%), Usage of Agriculture implements (65.33%). Equal number of farmers were maintaining Improved animal breeds and practicing IWM practices (63.33%) consistently in their farms. 11 Out of 15 field fields broadcasted through AIR VPP, more than half of farmers adopted the practices. The reason is farmers felt that the broadcasted information is authentic and trustworthy with higher practicability as it is delivered through reputed scientists of the universities. The findings are in accordance with findings of Chinda *et al.*, (2019) [3] who reported that the coefficient of education was estimated at 0.438 and statistically significant at 0.05 level. This implies that as farmers’ level of education increases the adoption of agricultural production technologies aired on radio increases. The respondents of the AIR VPP are progressive and cosmopolite in nature as they are also members of KVK

& DAATT centres of the university. They had high level of education and extension contact which led them to high level of adoption

Table 6: Distribution of respondents based on their overall adoption of recommended practices broadcasted in AIR VP programme (n =150)

Sl. No	Category	Frequency	Percentage	Mean	SD
1	Low	26	17.33	11.16	2.71
2	Medium	88	58.67		
3	High	36	24.00		

The results affirmed from the table 3 that due to the impact of Vyavasaya Patasala programme, more than 80 per cent of farmers combinedly fall under medium to high level of adoption of agricultural and allied practices which indicates that farmers were practicing at filed level whatever the knowledge they received through AIR programme. Since, farmers are the members of the SAC of KVK and DLCC of DAATTC, they rechecked the information received through AIR programme with the scientists of KVK and DAATTC before being implemented at filed level.

Table 7: Constraints encountered by the farmers in Vyavasaya Patasala programme (n= 150)

S. No	Statements	Garette total score	Garette means score	Rank
1	Lack of awareness on News-On-Air app	6941	46.27	4
2	Not interested to maintain radio handsets due to high accessibility of the information from other sources like YouTube and WhatsApp	7736	51.57	3
3	Less talks on marketing of the farm produce and mechanization	5911	39.41	10
4	Repetition in the talk	6403	42.69	7
5	Overlap of the agricultural programmes in others sources at same time	6565	43.77	6
6	Improper time of Broadcasting	6258	41.72	8
7	Poor publicity about weekly schedule of the programme in an advance	8348	55.65	2
8	Routine works at farm and home hampers the listening of the programme	8713	58.09	1
9	Lack of information on new & currently available chemicals in the market	6086	40.57	9
10	Improper signals in village level	6639	44.26	5

Based on the findings in table 7, it was observed that farmers expressed multiple responses about constraints experienced by them against Vyavasaya Patasala programme. Majority of the them expressed that routine works at farm and home hampers the listening of the

programme which had the highest mean score of 58.09 followed by lesser publicity about weekly schedule of the programme in an advance (55.65), due to high accessibility of the information in sources like YouTube and WhatsApp, farmers are not interested to maintain handsets (51.57%),

lack of awareness on News-On-Air app (46.27), improper signals at village level (44.26) are other key constraints encountered by the farmers against AIR programme. The results are in line with Palvi (2018) [13]. He reported that 59.16 per cent of the farmers expressed that they remain engaged in domestic and other routine work and do not get time to listen the programme followed by improper working of radio sets (37.40%) to receive signal.

Conclusion

It was concluded from the study that more than half (54.00%) of the respondents had medium and one third of them had high (33.33%) level of knowledge on management practices pertaining to agriculture and allied areas. As an impact of the of Vyavasaya Patasala programmes, the gained knowledge has been transformed into adoption with medium (58.67%) to high level (24.00%) of agricultural and allied practices among the farmers. This implies that farmers who were exposed had believed that AIR Vyavasaya Patasala programme was one of the authenticated programmes resulted in adoption. In another side of the coin, 17 to 20 per cent of the farmers still under lower level of knowledge and adoption though they are progressive and cosmopolite in nature similar to the farmers who were under adopted category. As low level of knowledge gain was observed through straight talk (56.67%) mode of presentation, it is need to enhance the delivery of the lessons in Vyavasaya Patasala programme through interview and discussion mode to achieve greater level of adoption as well as to cut down indiscriminate costs at farm level.

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