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MEDIA UTILIZATION AND KNOWLEDGE GAIN OF THE ORGANIC FARMERS

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ABSTRACT: -

Media utilization is the use of media to convey a message, usually instructional, to obtain a desired outcome from a defined audience and setting while addressing learning style and available medium. This study examines the media utilization and knowledge gain of farmers in Karnataka. The objectives of the study are to find out the media utilization pattern among farmers and to assess the relationship, if any, between the knowledge gained by the organic farmers and their media habits. The experimental research design is used for this study. In the present research, multi-stage sampling techniques were used. By using a random number table, 600 Radio listeners' and 300 non-listeners were selected and the total sample is 900 respondents. A questionnaire was designed to interview the organic farmers of Karnataka state. The study found that the radio is indeed effective in influencing the knowledge gain of the farmers.

KEYWORDS: *Media utilization, knowedge gain, organic farmers.*

INTRODUCTION :

The use of mass media to reach large farm community have for long been an essenatial component of agriculture communication in India. Agriculture is becoming increasingly information intensive. At the same time, information and communication technology provides a range of sophisticated methods for enhancing communication with farmers. But much work remains to assess the effectiveness and feasibility of various communication strategies. Although electronic media are playing an ever more important role in agricultural communication, print media will surely remain an important source of agricultural information in many parts of the world for some years to come. It is important to assess the degree to which media such as newspapers and magazines can play an important role in fostering the diffusion of useful information to farmers (Padre, Sudarshana and Tripp 2003).

REVIEW OF LITERATURE:

Roy (1969) in his study the impact of communication on rural development and found that changes in knowledge about health and agricultural innovations is more significant for the participants of all age group in radio forum than control group.

Joshi (1985) indicated that there was no association between the personal characteristics of the

respondents, such as age, educational level, land holding, economic status, the level of social participation and mass media participation and the gain in knowledge as a result of farm radio lessons.

Syed Sadaqath (2005) pointed out that correlation with credibility of mass media with independent variables almost all the independent variables shows positive significant relationship with 5% level of probability credible information perceived by farmers on agriculture.

Naik Munir Hussain (2009) reveals that mass media exposure and innovativeness were positively and significantly related to the knowledge level when examined through correlation test.

OBJECTIVES:

The objectives of the study is to evaluate the knowledge gain of the farmers and their media habits. The specific objectives of the study are:

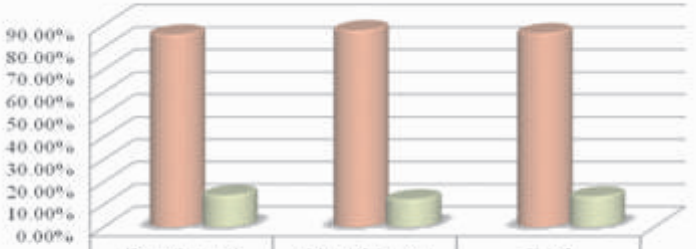
1. To know the socio-demographich characteristics of farmers.
2. To find out the media utilization pattern among farmers.
3. To assess the relationship, if any, between the knowledge gained by the organic farmers and their media habits.

METHODOLOGY:

The experimental research design is used for this study. In the present research, multi-stage sampling techniques were used. The first stage of sampling consisted of selection of taluks (Blocks), at the second stage hobalis (a unit of Taluk) were selected and in the third stage villages were selected. At the final fourth stage, the respondents i.e. registered farmers (listeners) and non-registered farmers (non-listeners) were chosen. The selected respondents for this study represent all the 30 districts Karnataka State. From each district 1 Taluka (Block), from each Taluka 1 hobali (a unit of Taluk) and from each hobali 2 villages and from each village 10 listeners' and 5 non- listeners' were selected randomly for data collection by personal interview method. At last, by using a random number table, 600 listeners' and 300 non-listeners were selected by random sampling technique. In this mode a total of, 900 respondents were selected for this study to assess the relationship, if any, between knowledge gain and media habits of the farmers. A questionnaire was designed to interview the organic farmers of Karnataka state and structured interview schedule was drafted.

RESULTS AND DISCUSSION:

Fig. 4.1Distribution of farmers by Gender



	Experimental Group	Control Group	Total
Male	85.80%	87.70%	86.40%
Female	14.20%	12.30%	13.60%

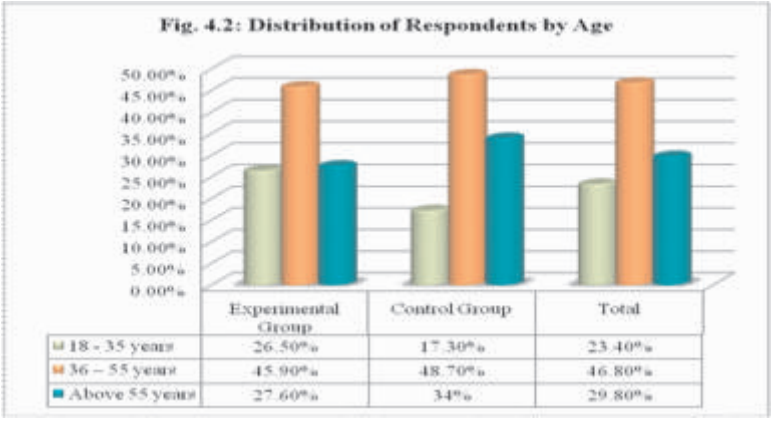
The data presented in Fig. 4.1 highlights that more than four-fifth of the study population (86.4%, N=778) is male and remaining only 13.6% (N=122) is female.

The figure also reveals that a large number of farmers under experimental group (85.8%, N=515) are male, while very few are (14.2%, N=85) female. Further, the gender distribution of the control group also indicates that most of the farmers (87.7%, N=263) are male while remaining 12.3% (N=37) are female.

This supports the findings of Ani and Baba (2009), Nwachukwu (2010), Ayoade (2010) and Oyesola

(2011) as they reported that the majority of the farmers were male.

Fig. 4.2: Distribution of Respondents by Age



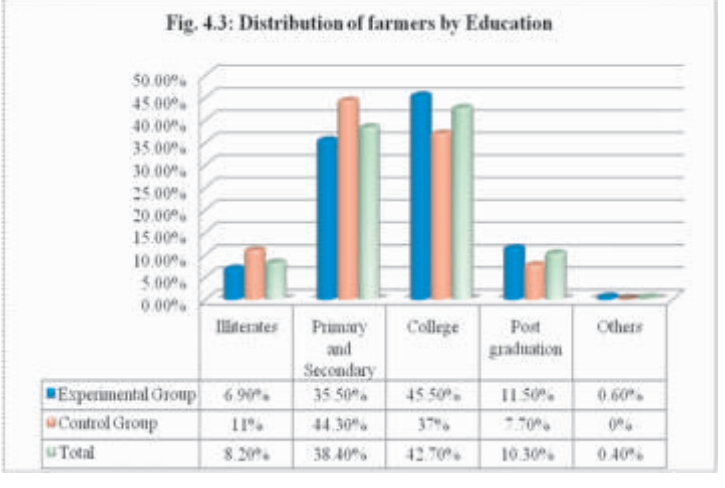
	Experimental Group	Control Group	Total
18 - 35 years	26.50%	17.30%	23.40%
36 – 55 years	45.90%	48.70%	46.80%
Above 55 years	27.60%	34%	29.80%

The information depicted in Fig. 4.2 reflects that slightly less than half of the farmers (46.8%, N=421) belong to 36 to 55 years age group, followed by 29.8% (N=268) belonging to the age group of more than 55 years and only 23.4% (N=211) belongs to 18 to 35 years of age group.

While, the majority of the farmers under experimental group (45.9%, N=275) belong to the age group of 36-55 years, followed by 27.6% (N=166) of the farmers who belong to the age group of more than 55 years and only 26.5% (N=159) belong to the age group of 18 to 35 years. It is also found that nearly half of the farmers i.e. 48.7% (N=146) under control group are between 36 to 55 years age group and 34% (N=102) of the farmers are above 55 years of age and only 17.3% (N=52) are in the age group of 18 to 35 years. The result of the study indicates that middle age farmers (36-55 years) are more involved in organic farming than other age group farmers.

The findings with regard to result shows in accordance with those of Guanren (1989), KrishnaMurthy (1999), Barman and Gogoi (2000), Maraddi (2006), Butt (2008), Ani and Baba (2009), Hosamani (2009), Ayoade (2010), Rehman (2011) and Rasak and Amusat (2012) reported that the majority of the farmers belonged to the middle age group.

Fig. 4.3: Distribution of farmers by Education



	Illiterates	Primary and Secondary	College	Post graduation	Others
Experimental Group	6.90%	35.50%	45.50%	11.50%	0.60%
Control Group	11%	44.30%	37%	7.70%	0%
Total	8.20%	38.40%	42.70%	10.30%	0.40%

The evaluation of education level of farmers is reported in Fig. 4.3. It indicates that more than two fifths of the total study population (42.7%, N=384) have a college education, followed by 38.4% (N=346) of the farmers who have primary and secondary education, 10.3% (N=92) have a post graduation level of education and only 8.2% (N=74) of the farmers are illiterates.

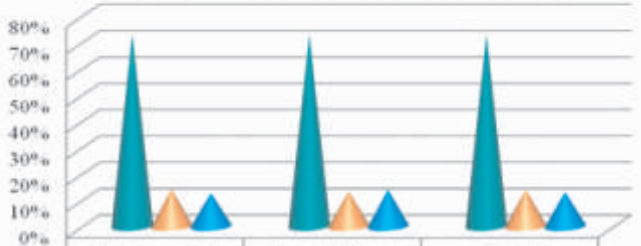
It also shows that a great majority (93.1%, N=559) of the farmers under experimental group are literates and only 6.9% (N=41) are illiterates. Among the literates 45.5% (N=273) have an education up to college level, followed by 35.5% (N=213) of the farmers who have primary and secondary education and 11.5% (N=69) have a

post graduation level of education.

Among the control group, 89% (N=267) of farmers are literates and only 11% (N=33) are illiterates. Among the literates 44.3% (N=133) have primary and secondary education, 37% (N=111) have a college education and only 7.7% (N=23) are post graduates. The above figure indicates that the education level of the study group is high due to improved educational facilities in the area selected for study and the majority of the farmers are progressive.

This is supported by the findings of Chandramouli (1986), Barman and Gogoi (2000), Natikar (2001), Rehman (2011) and Rasak and Amusat (2012) who have examined that majority of the progressive farmers were literate.

Fig. 4.5: Distribution of farmers by Land Holding



	Experimental Group	Control Group	Total
Up to 10 acres	73%	72.70%	72.90%
11 – 20 acres	14.30%	13.30%	14%
21 acres and above	12.70%	14%	13.10%

It is seen from Fig. 4.5 that more than seventy two percent of the study population (72.9%, N=656) have small size of land holdings with up to 10 acres, followed by 14% (N=126) who have medium land holdings to 11-20 acres and only 13.1% (N=118) have large farm size with more than 21 acres of land.

It is found that nearly three fourth (73%, N=438) of the farmers under experimental group have small size land holding, followed by 14.3% (N=86) who have medium size land holdings and only 12.6% (N=76) have large farm holdings with more than 21 acres of land.

In case of the control group, 72.7% (N=218) possess small land holdings, 14% (N=42) of them have large size land holdings and 13.3% (N=40) of farmers have medium size land holding. It is found that the majority of the farmers has small size land holdings with less than 10 acres of land.

The results are in conformity with the findings of Olayide (1992), Agwu, Ekwueme and Anyanwu (2008) and Nwachukwu (2010) who have stated that a great majority of the farmers have a small cultivated land.

Table-1: Gain in knowledge among farmers by Reading Newspaper

Frequency of reading Newspaper	Experimental Group		Comparison of newspaper readers	Z-value	P-value	Significance level
	S.D (σ)	Mean ($\bar{x}$)				
Regularly	49.29	325.63	Between Regularly and Occasionally	111.8	<0.0001	HS
Occasionally	16.08	88.93	Between Occasionally and Never	2.42	0.0156	HS
Never	11.88	86.95	Between Never and Regularly	115.31	<0.0001	HS

S.D =Standard Deviation
HS: Highly Significant.
NS: Not Significant.
H_o: There is no significant difference in the gain of knowledge among newspaper readers.

H_1: There is a significant difference in the gain of knowledge among newspaper readers.

The newspaper reading habit of farmers and their knowledge gain are presented in table -1. It is clear that there is a significant difference between a newspaper reading habits and knowledge gain of the farmers, which is statistically proven (P - 0.0001 and P-0.0156).

The mean knowledge score of three groups indicates that who read newspaper regularly gained highest mean knowledge score (325.63), followed by occasional (88.93) and those who never read newspaper gained lowest mean knowledge score (86.95). This reveals that farmers, who read newspaper occasionally and never, did not differ significantly, though there was a slighter higher mean score of occasional readers.

The possible reasons might be that a great majority of the farmers are literates and read newspapers regularly. Now a day newspapers are publishing weekly supplements exclusively on agriculture. Apart from this, newspapers cover more and more news, special reports and articles regarding latest information on new methods of organic farming and innovations this might have supplemented to acquire additional knowledge.

Thus, then null hypothesis- there is no significance difference between knowledge gain of newspaper readers is rejected.

These results are similar to the findings of Kakade (1995), Puthira and Ponnusamy (2006) which indicates that there was a significant difference between knowledge gain and newspaper reading habit among farmers.

Table-2: Gain in knowledge among farmers by Reading General Magazine

Frequency of reading general Magazine	Experimental Group		Comparison of general magazine readers	Z-value	P-value	Significance level
	S.D (σ)	Mean ($\bar{x}$)				
Regularly	28.39	197.34	Between Regularly and Occasionally	16.21	<0.0001	HS
Occasionally	29.38	170.3	Between Occasionally and Never	46.00	<0.0001	HS
Never	18.85	133.34	Between Never and Regularly	25.93	<0.0001	HS

S.D =Standard Deviation
HS: Highly Significant.
NS: Not Significant.
H_0: There is no significant difference in the gain of knowledge among general magazine readers.
H_1: There is a significant difference in the gain of knowledge among general magazine readers.

The Z – test is employed to test the significant difference between the reading habit of general magazines and knowledge gain of the registered farmers. From the P value -0.0001, it is found that there is a significant difference between general magazine reading habits and knowledge gain of the farmers.

Comparison of the mean knowledge score reveals that, the three groups, regular readers (197.34), occasional readers (170.3) and who never read a general magazines, their mean knowledge score slightly (133.34) differs.

The possible reason might be that general magazines are also carrying special articles on innovative practices and success stories on organic farming. The farmers who are reading general magazines might have a chance to get more support to acquire knowledge regarding organic farming.

The null hypothesis- there is no significant difference between knowledge gain level of general magazine readers is rejected.

The results of the study get support from the findings of Kakade (1995), Puthira and Ponnusamy (2006) stated that there was a significant difference between general magazines reading habit and knowledge gain.

Table-3: Gain in knowledge among farmers by Reading Farm Magazine

Frequency of reading Farm Magazine	Experimental Group		Comparison of farm magazine readers	Z-value	P-value	Significance level
	S.D (σ)	Mean ( )				
Regularly	26.98	201.43	Between Regularly and Occasionally	6.46	<0.0001	HS
Occasionally	32.89	190.21	Between Occasionally and Never	53.71	<0.0001	HS
Never	16.74	109.28	Between Never and Regularly	71.09	<0.0001	HS

S.D =Standard Deviation
HS: Highly Significant.
NS: Not Significant.
H_0: There is no significant difference in the gain of knowledge among farm magazine readers.
H_1: There is a significant difference in the gain of knowledge among farm magazine readers.

The data on significant gains in knowledge by reading farm magazines is presented in table-3 along with the results of the Z – test. The calculated P – value (0.0001), reveals to be significant. The data states that there is a significant difference between farm magazine reading habit and knowledge gain of organic farmers.

Further, comparison of the difference in the mean knowledge score of different farm magazines reading habit groups indicates that regularly (201.43), occasionally (190.21) are almost alike as far as their mean knowledge score is concerned and who never read farm magazines have a low mean knowledge score (109.28) as compared to other groups.

The possible reason might be that, farm magazines are regarded as the most suitable forms of print media for knowledge gain of organic farming technologies. The farm magazines regularly cover the latest information regarding organic farming and also give timely information and expert's suggestions on a regular basis.

Thus, null hypothesis- there is no significance difference between knowledge gain of farm magazine readers is rejected.

The findings of the study agree with the findings of Kakade (1995), Puthira and Ponnusamy (2006) that there was a significance difference between knowledge gain and farm magazines reading habit among farmers.

Table-4: Gain in knowledge among farmers by Viewing TV

Frequency of TV viewing	Experimental Group		Comparison of TV viewers	Z-value	P-value	Significance level
	S.D (σ)	Mean ( )				
Regularly	78.04	413.21	Between Regularly and Occasionally	109.7	<0.0001	HS
Occasionally	11.09	60	Between Occasionally and Never	79.18	<0.0001	HS
Never	4.49	21.32	Between Never and Regularly	122.8	<0.0001	HS

S.D =Standard Deviation
HS: Highly Significant.
NS: Not Significant.
H_0: There is no significant difference in the gain of knowledge among TV viewers.
H_1: There is a significant difference in the gain of knowledge among TV viewers.

Table-4 provides the data regarding TV viewing habit and knowledge gain of farmers. The Z – test is applied to the data and the calculated P – value (0.0001) is found to be significant. This reveals that there is a significant difference in terms of knowledge gain and TV viewing habit of the farmers.

The mean knowledge score of three groups reveals that who watch TV regularly gained highest mean knowledge score (413.21), followed by occasional (60) and those who do not watch TV gain lowest mean knowledge score (21.32). Farmers who watch TV regularly performed better in acquiring knowledge on organic farming.

The reason might be that the TV is fully utilized media among registered farmers, which enhance not only awareness level of the farmers, but also helps to increase the knowledge level regarding the latest production technology related to organic farming. Another possible reason for the above finding might be that some of the TV channels are telecasting programmes on agriculture. These TV programmes are providing latest information regarding organic farming. TV channels are also telecasting success stories of the organic farmers who invented different types of methods in organic farming. These TV programmes might be helpful to the farmers to enhance their knowledge level.

The null hypothesis– there is no significance difference between knowledge gain of TV viewers is rejected.

The results go with the study conducted by Olowu (1991), Puthira and Krishnamurthy (1999) and Ponnusamy (2006). The findings of these studies reported that there is a significant difference between knowledge gain and TV viewing habit of the farmers.

Table-5: Gain in knowledge among farmers by Accessing Internet

Frequency of Accessing Internet	Experimental Group		Comparison of internet users	Z-value	P-value	Significance level
	S.D (σ)	Mean ( )				
Regularly	7.85	321.04	Between Regularly and Occasionally	117.56	<0.0001	HS
Occasionally	16.97	108.82	Between Occasionally and Never	95.8	<0.0001	HS
Never	51.49	71.06	Between Never and Regularly	49.46	<0.0001	HS

S.D =Standard Deviation
HS: Highly Significant.
NS: Not Significant.
H_0: There is no significant difference in the gain of knowledge among internet users.
H_1: There is a significant difference in the gain of knowledge among internet users.

An examination of table-5 shows the relationship between internet accessing habit and knowledge gain of registered farmers. The Z – test is employed to the data analysis. P – Value (0.0001) is found significant, indicating that there is a significant difference with respect to use of the Internet and knowledge gain of the farmers.

The mean knowledge score of the registered farmers of the three groups is found to be varied. Further, compared with the farmers who access internet regularly has mean knowledge score of 321.04, followed by occasional (108.82) and the farmers who never access internet their mean knowledge score is very low (71.06).

The reason might be that the farmers who access internet regularly come in contact with many organic farming communities online, these farmers are exposed to many e-magazines about agriculture and many web portals are available which disseminate information on improved production techniques related to organic farming, which result in more knowledge gain by the farmers accessing internet.

The null hypothesis- there is no significance difference between knowledge gain among internet is rejected.

The findings are in agreement with the study reported by Puthira and Ponnusamy (2006) that there is a significant difference between the use of the Internet and knowledge gain of farmers.

Table-6: Gain in knowledge among farmers by Listening Radio

Frequency of Radio listening	Experimental Group		Comparison of radio listeners	Z-value	P-value	Significance level
	S.D (σ)	Mean (x̄)				
Regularly	53.86	366.52	Between Regularly and Occasionally	97.54	<0.0001	HS
Occasionally	22.28	134.41	Between Occasionally and Never	147.7	<0.0001	HS
Never	0	0	Between Never and Regularly	166.6	<0.0001	HS

S.D =Standard Deviation
HS: Highly Significant.
NS: Not Significant.
H_0: There is no significant difference in the gain of knowledge among radio listeners.
H_1: There is a significant difference in the gain of knowledge among radio listeners.

Table-6 provides the data regarding the radio listening habits and the knowledge gain of registered farmers. The data indicate that there is a significant difference between knowledge gain and radio listening habits of the farmers. This is statistically proven from the study (P-value 0.0001).

The farmers are grouped into three categories, reveals that who listen to radio regularly gained highest mean knowledge score (366.52), followed by, occasionally (134.41) and those who never listen to radio have mean knowledge score of (0). This indicates that there is a significant difference in terms of knowledge gain and radio listening habits of the farmers.

The reason for these findings might be that the radio is indeed effective in influencing the knowledge gain of the farmers. Even in the modern days, the radio programmes are more effective, needed and believed by the farmers than the other source of information related to organic farming.

Therefore, null hypothesis- there is no significance difference between knowledge gain of radio listeners is rejected.

This supports the findings of Kishore (1968), Roy (1969), John (1971), Singh (1972), Sundareshan (1978), Krishnamurthy (1999), Rajasekaran (2000), Puthira and Ponnusamy (2006), Okwu1, Kukul and Aba (2007) and Nwachukwu (2010). These studies reveal that there is a significant difference between radio listening habits and knowledge gain of farmers.

CONCLUSION:

The study was designed to investigate the relationship, if any, between knowledge gain and media utilization pattern of the farmers. It is found that a great majority of the farmers are literates and read newspapers regularly. Now a day newspapers are publishing weekly supplements exclusively on agriculture. The study shows that many web portals are available which disseminate information on improved production techniques related to organic farming, which result in more knowledge gain by the farmers accessing internet. Radio is indeed effective in influencing the knowledge gain of the farmers. Even in the modern days, the radio programmes are more effective, needed and believed by the farmers than the other source of information related to organic farming.

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