



PERCEPTION AND PREFERENCE OF SOCIAL MEDIA PLATFORMS IN ADOPTION OF AGRICULTURAL INNOVATIONS AMONG FARMERS OF KURNOOL DISTRICT, ANDHRA PRADESH

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DOI: 10.47856/ijaast.2021.v08i4.002

ABSTRACT: Agriculture is the prime contributor and serves food, raw materials for secondary production. In this modern era, when everything are modernized, agriculture also need to be modernized which can be done by adopting new innovations in agriculture. But absence of linkage between researchers and extension workers leads to lesser rate of adoption of farmers. In order to increase the rate of adoption, there should be a proper linkage to bridge the gap between the researchers and the extension service providers, which can be done with the help of social media. Hence, there is a need to study about the perception and preferences of various social media platforms in adoption of agricultural innovations among farmers. A random of 120 farmers those who possess smartphone of Kurnool district were selected as respondents and the data is gathered through pre-tested interview schedule. Findings of the study revealed that, importance and popularity of various social media platforms among farmers for adoption of innovations. To promote agriculture, the farmers should be improvised with up-to-date technologies and information. Hence, the farmers' knowledge can be updated with the help of social media through Government and Extension service providers using appropriate programmes and schemes.

Keywords: Social media, Agricultural innovations, Farmers, Adoption of innovation, Social media platforms, Preferences.

INTRODUCTION

Social media is one of the web-based computerized instruments, in which anyone can share data and examine the data among individuals. The data may be video, audio, pictures, raw data or anything else. In this 21st century, social media emerged as a powerful tool which has the capability to connect millions of people globally. It creates a revolution in the way of conducting



business, new ways of communication for exchange of information worldwide. As three out of four, in a household possess smartphones, social media acts as a mainstream form of communication. Agriculture in India was the main occupation and it was rightly called as, 'Backbone of India'. Agriculture serves as the source of livelihood for 70 per cent of rural population of India (FAO, 2019). With reference to agriculture, social media becomes inevitable in nature, as it connects the farmers and agribusiness people over different geographical locations from all over the world. Social media plays an important in exchange of information related to agricultural innovations. It also improvise the relationship between agricultural extension advisories and farmers, by providing relevant and up-to-date information based on farmer's preferences. Saravanan et.al., (2015) pointed out that web-based life can be beneficially employed in expansion of farming.

In this scientific era, we need a powerful communication tool to transfer new innovations, up-to-date information to improvise agriculture. In order to increase agricultural productivity, there is a need to transfer new findings and technologies to rural farmers. Ekoja (2003) added that, 'the new idea must reach farmer's farms and homes through effective extension and mass media channels, so that they can adopt and put them into use. Similar study by Movius et.al., (2007) reported that, to disseminate information to large audiences in an efficient manner, broadcast media paves the way. In addition to this, Ani and Baba (2009), pointed out that, for effective transfer of technologies, the essential ingredients were information and communication which boost agricultural production.

Statement of the problem

It is a well-known fact, innovations related to agriculture are generated everyday by research institutes, universities, private companies and farmers, but absence of proper linkage between research and extension services, retards the rate of adoption of innovations among farmers. Thus, the absence of linkage can be bridged using various social media platforms, as they could serve farmers in a timely manner. Hence, there is a need to study about the perception and preference of various social media platforms in adoption of agricultural innovations among farmers of Kurnool district.

Purpose of the Study

The main objective of the study is

- 1) To determine the socio-personal profile of the respondents.
- 2) To find out farmers' adoption level of social media for agricultural innovations.



METHODOLOGY

The present study is conducted at Kurnool district of Andhra Pradesh. Kurnool district has three revenue divisions, viz., Kurnool, Nandyal and Adoni. Eight villages from these three division was randomly selected. Fifteen farmers, those who possessed smart phones, from each village were selected randomly. Thus, 120 farmers of Kurnool district was selected as respondents. To analyze the rate of adoption among farmers, several statements regarding adoption were given and the farmers were asked to provide their response, against each and every statement as strongly agree, agree and disagree. The obtained weighted mean score was used to rank the rate of adoption. The primary data was collected with the help of a structured interview schedule through personal interview method. The collected data was distributed and subjected to statistical analysis and the results were presented.

RESULTS AND DISCUSSION

From the study, the profile characteristics of the farmers like age, gender, caste, family type, family income, educational qualification, land holding and occupation were studied and subjected to percentage analysis. The results were given below in table 1.

Table 1. Socio-economic profile characteristics of the farmers

S. No.	Profile	Category	Percentage
1	Age	Young (Upto 30 years)	37.5
		Middle (31-50 years)	45.83
		Old (More than 50 years)	16.67
2	Gender	Male	87.0
		Female	13.0
3	Caste	General	93.33
		OBC	4.17
		SC/ST	2.5
4	Family type	Nuclear family	80.83



		Joint family	19.17
5	Family income	Less than Rs.10,000	0
		10,000-20,000	6.0
		20,000-30,000	10.0
		30000-40000	17.5
		More than 40000	69.17
6	Educational qualification	Illiterate	3.33
		Primary	7.5
		Middle	16.67
		Matriculation	19.17
		Higher Secondary	32.5
		Graduate	18.33
		Post-Graduate	2.5
7	Land holding	Landless	0
		Less than 1 acre	5.0
		Above 1 and up to 5 acres	53.33
		Above 5 and up to 10 acres	16.67
		Above 10 to 15 acres	13.33
		Above 15 acres	11.17
8	Occupation	Farming	75.0
		Business/Job and farming	25.0



From table.1, it could be evident that, majority of the farmers belonged to middle aged group (45.83%), followed by young age group (37.5%) and old age group (16.67%). Meanwhile, most of the farmers were male (87%) and remaining of them were female (13%). Simultaneously, majority of the farmers belonged to the general caste (41.7%), followed by farmers who belonged to other backward classes (4.17%) and remaining (2.5%) were scheduled caste. With reference to family type, most of the farmers possessed nuclear family (80.83%) and few of them had joint family (19.17%).

Most of the farmers earned income more than 40,000 rupees per annum (69.17%), followed by farmers who earn income of 30,000 to 40,000 rupees per annum (17.5%), 20,000 to 30,000 rupees per annum (10%) and only few (6%) of them earn 10,000 to 20,000 rupees per annum. The farmers had studied upto higher secondary (32.5%), matriculation (19.17%), graduate (18.33%), middle (16.67%), primary (7.50%), illiterate (3.33%) and post-graduate (2.50%). Consequently, majority of the farmers own land up to 5 acres (53.33%), followed by farmers who own land of 5 to 10 acres (16.67%), upto 10 – 15 acres (13.33%), above 15 acres (11.17%), less than 1 acre (5%) and none of them were landless. Majority (75%) of them had farming as their major occupation while 25 per cent of them had jobs or business along with farming.

Most of the farmers in Kurnool district were middle aged and mostly male take part in the farming activities. Most of them were nuclear family as they had less than 4 members comprising of father, mother and their children. Most of the farmers earn average annual income of more than 40,000 rupees and they were educated up to higher secondary level. They possess land up to 5 acres as their inherit and perform farming as the major occupation. The findings of the present study are in line with the findings of Hanglem and Sarvanan (2014), Madhumitha and Karthikeyan (2019).

The perception and preference of various social media platforms like Facebook, Whatsapp, You tube, Twitter among farmers was analyzed with the help of statements regarding adoption of innovations. The farmers response against each statement is summed up, such that the aggregate total was used to calculate the weighted mean score. The obtained weighted mean score was used to rank the social media.



The perception and preference of social media platforms for adoption of agricultural innovations using various social media platforms (i.e.) Face Book were analyzed, calculated and the results were shown in table 2.

Table 2. Perception and preference of Facebook among farmers for adoption of innovation among farmers

S. No.	Statements	strongly agree (3)	Agree (2)	Disagree (1)	Total weighted score	Weighted mean score	Rank
1	Facebook provides news updates (agriculture and allied subjects)	26	51	43	223	1.85	IV
2	Use Facebook for communicating and interacting with Friends	37	48	35	242	2.01	I
3	Using Facebook increase yours farm productivity	21	22	77	184	1.53	VIII
4	Use Facebook for entertainment purpose	37	45	38	239	1.99	II
5	Facebook is useful as an educational tool	35	37	48	227	1.89	III
6	Is Facebook flexible to interact with farmers	25	40	55	210	1.75	V
7	It takes time to search for information	21	25	74	187	1.55	VII



8	Facebook is easy way to interacting with multi discipline personnel	15	48	57	198	1.65	VI
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It is evident from table 2, that use of facebook for communicating and interacting with friends secured 1st rank, followed use of facebook for entertainment purpose, educational tool, news updates, flexibility to interact, multi-discipline, take time to search , increase farm productivity as 2nd, 3rd, 4th, 5th, 6th, 7th and 8th ranks respectively.

The perception and preference of social media platforms for adoption of agricultural innovations using various social media platforms (i.e.) Whatsapp were analyzed, calculated and the results were shown in table 3.

Table 3. Perception and preference of Whatsapp among farmers for adoption of innovation among farmers

S. No.	Statements	strongly agree (3)	Agree (2)	Disagree (1)	Total weighted score	Weighted mean score	Rank
1	It is easy and convenient way of communicating with farmers	25	68	27	238	1.98	V
2	Whats App enables you to share information and connect ideas with peers	40	59	21	259	2.15	II
3	WhatsApp requires lesser data demand	40	55	25	255	2.12	III
4	WhatsApp is more advantageous than KCC	37	42	41	236	1.96	VI
5	Do you think WhatsApp learning is a waste of time	31	56	33	238	1.98	V



6	Chatting on WhatsApp helps you to maintain social relationship	37	60	23	254	2.11	IV
7	WhatsApp provides marketing related information.	37	70	13	264	2.20	I

It can be evident from the table 3, that WhatsApp provides marketing related information had secured 1st rank, followed by use of WhatsApp to share information, connect ideas with peers requiring lesser data demand, chatting to maintain social relationship secured 2nd, 3rd, 4th respectively. WhatsApp learning is waste of time and it is easy and convenient way to connect with farmers, both secured 5th rank. Eventually, it is concluded that, WhatsApp is more advantageous than KCC as 6th rank.

The perception and preference of social media platforms for adoption of agricultural innovations using various social media platforms (i.e.) YouTube were analyzed, calculated and the results were shown in table 4.

Table 4. Perception and preference of YouTube among farmers for adoption of innovation among farmers

S. No.	Statements	strongly agree (3)	Agree (2)	Disagree (1)	Total weighted score	Weighted mean score	Rank
1	Do you use YouTube	06	72	42	204	1.70	V
2	Using You Tube videos are reliable for you	16	57	46	211	1.75	III
3	Using YouTube videos are convenient for your agricultural work data demand	17	49	55	201	1.67	VI
4	Mode of work satisfactory for you	18	52	50	208	1.73	IV



5	YouTube helps you acquaints with latest information	35	39	51	234	1.95	I
6	YouTube enables you to share information with others	30	39	51	219	1.82	II

It can be seen from the table 4, that You Tube had latest information secures 1st rank, followed by You Tube enables to share information with others, reliable and satisfactory videos, convenient nature secured 2nd, 3th, 4th, 5th and 6th ranks respectively.

The perception and preference of social media platforms for adoption of agricultural innovations using various social media platforms (i.e.) Twitter were analyzed, calculated and the results were shown in table 5.

Table 5. Perception and preference of Twitter among farmers for adoption of innovation among farmers

S. No.	Statements	strongly agree (3)	Agree (2)	Disagree (1)	Total weighted score	Weighted mean score	Rank
1	Twitter reduce social isolation for farmers	05	26	89	156	1.3	V
2	Using twitter to make a positive impact	11	30	79	172	1.43	II
3	Sharing information is reliable for your interest	13	30	77	176	1.47	II
4	Twitter enables interaction directly with people of influence	14	31	75	179	1.49	IV
5	Do you prefer twitter as informative tool	08	40	72	176	1.47	III



6	Do you think twitter is time consuming	14	30	76	178	1.48	I
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It is evident from table 5, that Twitter allows direct interaction with people of influence secured 1st rank, followed by time consuming, reliable and interest based information, informative tool, positive impact, reduces social isolation secured 2nd, 3th, 4th, 5th and 6th rank respectively.

The perception and preference of social media platforms for adoption of agricultural innovations using various social media platforms (i.e.) Kissan Call Centre (KCC) were analyzed, calculated and the results were shown in table 6.

Table 6. Perception and preference of Kissan Call Centre (KCC) among farmers for adoption of innovation among farmers

S. No.	Statements	strongly agree (3)	Agree (2)	Disagree (1)	Total weighted score	Weighted mean score	Rank
1	Because of the KCC, there has been a significant improvement in the economic condition of the farmers	07	65	48	199	1.65	V
2	KCC employees are knowledgeable to give information	14	59	47	207	1.72	II
3	Information received from KCC helps to solve farmer's problems	14	59	47	207	1.72	II
4	KCC is capable to providing market know how	18	44	58	200	1.66	IV
5	KCC provides fair amount	17	47	56	201	1.67	III



	of information for the query farmers task						
6	KCC is one of the potential tools of ICT to reach needy farmers	22	49	49	213	1.77	I

It can be seen from the table 6, that KCC was one of the potential tools of ICT to reach needy farmers secures 1st rank, followed by KCC employees who were knowledgeable to give information, information received from KCC helped to solve farmer's problem, provided a fair amount of information for the query of farmers task, KCC was capable to provide market know-how, significant improvement in the economic condition of the farmers secured 2nd, 3rd, 4th, 5th and 6th rank respectively.

India microfinance report (June 2011), pointed out that, over 20 lakh calls were received by the Kisan Call Centres as compared to 9 lakh calls in the previous year. Lavanya (2006) revealed that university scientists were the major source of information (70.00%) for awareness of KCC. More than half (60.00%) of the respondents expressed the credibility of scientists as the major reason for contacting KCC.

The perception and preference of social media platforms for adoption of agricultural innovations using various social media platforms (i.e.) Kissan SMS Portal were analyzed, calculated and the results were shown in table 7.

Table 7. Perception and preference of Kissan SMS Portal among farmers for adoption of innovation among farmers

S. No.	Statements	strongly agree (3)	Agree (2)	Disagree (1)	Total weighted score	Weighted mean score	Rank
1	All kinds of information exchange is possible through SMS Portal	16	74	30	226	01.90	IV
2	SMS portal services avoids the personal	36	62	22	194	01.67	V



	extension contact						
3	SMS service keeps up to date with market/ weather report	36	63	21	255	2.12	II
4	SMS services are trustworthy	43	57	20	263	2.19	I
5	Farmers feedback is fast through Kisan SMS Portal than traditional method	30	60	30	240	2	III

It can be understood from the table 7, that SMS services are trustworthy secured 1st rank, followed by SMS services keeps up to date with market/weather report, farmers feedback is faster through Kisan SMS Portal, all kinds of information is possible through SMS portal and SMS portal services avoid the personal extension contact secured 2nd, 3rd, 4th, 5th rank respectively.

Most of the farmers relied on Kisan SMS portal for their agricultural activities because of SMS services were trustworthy and kept up to date with market /weather report. Wankhede et al.(2011) studied the impact of Kisan Mobile SMS in 10 dimensions and reported that Kisan Mobile SMS played an effective and positive role for technology transfer in terms of cost effectiveness and addressing need-based information.

Mass media like TV, Radio secured 1st rank and Newspaper as 2nd in sharing information in a timely manner. Regarding social media, WhatsApp secured 1st, Kisan SMS Portal as 2nd, Facebook as 3rd, YouTube as 4th, Kisan Call Center as 5th and Twitter as 6th ranks respectively.

CONCLUSION

In order to promote the agricultural sector economically and socially viable, Government and Extension service providers should take special efforts to develop more programmes and schemes to transfer new innovations, exchange information and update them with latest technologies which in turn provide a solution to farmer queries in a timely manner with appropriate information. In addition to this, there is a need to provide intensive training to make



them skilled so as to design user content of agricultural information in a competent and comprehensible manner.

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