

Constraints and Suggestions for Effective Utilization of Social Media in Agriculture- An Analysis

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ABSTRACT: Information Communication Tools (ICTs) revolutionized the way of communication. Social media platforms dominated the medium of communication in last second half of the decade. The use of social media platforms is gaining importance and substantial number research institutes are disseminating the information in these platforms. Communication among these social media platforms rapidly increasing in agriculture at all stakeholder's level. The current investigation taken to study what are the major constraints and suggestions among farming community in effective dissemination of agricultural information. Primary data collected from 120 farmers covering are area of Southern Telangana Zone (STZ) in state Telangana. The results shown that insufficient skill ranked top in personal level constraints with mean score 2.64, followed by low knowledge, high cost etc. Among the technological constraints, language problem in using social media ranked top with mean 2.47. Poor and late replies from the expert on social media and consumes more time to get information ranked top two with mean scores 2.45 and 2.40 respectively in situational constraints. e-Mail as mandatory and frequent updates are other constraints reported by the respondents. Provision of special internet packages ranked top followed by specific alternative information, quick response, personal visit of expert etc. are the few suggestions given by the respondents for effective dissemination of agriculture information on social media. The results of the study reported major constraints at personal, technological, situational and other constraints in using social media as source of agricultural information. Study also documented the suggestions from the farmers for effective utilization of social media as medium of communication, which are useful to agricultural information providers.

Keywords: Social media, Agriculture, Agricultural Information, Constraints, Suggestions and Effective utilization.

INTRODUCTION

Information plays key role in any decision making and it is as important as the other inputs for better productivity. Agricultural information plays major role in all decision makings of farmers from selection of crop to selling the produce in market. The agricultural research institutes, state and central department of agriculture and NGOs working on agriculture are the major sources of new agricultural information. The extension system making efforts in disseminating the developed agricultural information from research system to ultimate end users. Extension system updated itself in disseminating way information along with the technological advancement in field of Information

Communication Technologies (ICTs). From the radio to latest mobile applications, each and every opportunity was effectively utilized by the extension system in service of farming community. Social media platforms dominated the way of communication in second half of the last decade. Social media is described as a modern communication channel through which people connect to each another, share ideas, experiences, pictures, messages and information of interest. They are an interactive network in which ICTs bequeath to modern society through the instrumentally of the internet and the telecommunication gadgets (Eke *et al.*, 2014). Social media has been the fastest adopted media technology in the world as it took around 38 years for radio, 13 years for television, 4 years for iPod, 3 years

for internet but one year for Facebook and 9 months for twitter to reach 50 million users (Chui *et al.*, 2012). Social media is now everywhere used by all age groups of people including farmers in every walk of life as it has revolutionized the means of communication. It has engrossed the attention of large number of farmers as it is the fastest and cheapest means of communication brought about by advancement in the IT sector. The social media is becoming a very important tool in farming to with farmers, extension worker and agribusiness people around the world over large geographical distances and it plays important role in enhancing interactions and information flows among different people involved in agricultural innovation and enhance capacities of agricultural extension and advisory service providers. The power of social media based on its features that applied to a whole range of applications that involve interaction between people (Chui *et al.*, 2012). Social media became part of adolescent's life and WhatsApp is most familiar application (Patra and Gogoi, 2021). WhatsApp, Facebook, and YouTube are more familiar at field level among all social media platforms and extension personnel should develop content accordingly in such a way that reach farmers more effectively through these social media platforms (Sandeep *et al.*, 2020). The advantages of using social media are beyond cost-effective ways of communication to empowerment (Neill *et al.*, 2011). The social media has become a preferred media for receiving and further sharing information among all the stake holders (Sharma *et al.*, 2020). Social media has been affecting various sectors including the agriculture sector. Platforms like Twitter, Facebook and WhatsApp are encouraging interaction among users and in sharing of information. Today farmers are using social media platforms to access information, spread information and for improving their knowledge and skills. The potential of social media is hindered by the constrains facing at the field level at users' level and need to be addressed for the better utilization. Bhattacharjee and Raj (2016) reported that major drawbacks in using social media are faulty internet connections, unproductive use of time, control internet footprint, lack of enterprise in using social media and fear of missing out are major constraints in using social media. Darshan and Meena (2017) reported that weak research linkage, unsuitable and incomprehensible information, lack of response, time constraint etc. are the constraints in using social media in agriculture. The current investigation is conducted to identify the major constraints from the farmers level respondents directly and document the major suggestion given the farmers.

METHODOLOGY

The state Telangana was selected for the study and all three erstwhile districts from STZ were selected as study area. Total of 12 villages selected from 6 Mandals randomly and selected two Mandals from each district.

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Ten respondents from each village and total of 120 were selected as sample in the study. An exhaustive list of various constraints to use social media services pertaining to personal, technological and situation domains was prepared and for their measurement, a set of statements was administered to the respondents and any other constraints faced by respondents are recorded and their level of agreement i.e., Agree, undecided, disagree was obtained and quantified with the respective scoring 3, 2 and 1. Open ended suggestions list were collected from each respondent for effective utilization of social media in agriculture. Frequencies and mean scores for each of these statements were worked out for relative rankings of the major barriers and suggestions to use social media as a source for agriculture information.

RESULTS AND DISCUSSION

Constraints referred to the events or factors that obstruct social media usage by farmers in connection with accessing agriculture information. From the Table 1 it can be observed that the "Insufficient skills in using social media by farmers" ranked first with mean score of 2.64, followed by statement "Low knowledge on services available in social media" with mean score of 2.47, "High cost of data and smart phones" with mean score of 2.39, "Lack of motivation to adopt social media services" with mean score 2.38, "Age factor is restricting to use social media" with mean score of 2.16, "Inability to update in technological communication" with mean score 2.15, "Fear in using digital technologies by farmers" with mean score 2.08, "Low preference towards social media usage" with mean 2.00, "Lack of confidence in social media platforms" with mean score 1.96, "Shortage of time to use social media" with mean score 1.91, similar constraint was reported by (Singh *et al.*, 2015) and "Fear of addiction or overuse of social media platforms" with mean score 1.73.

From the results of data presented in Table 1, it can be depicted that insufficient skills, low knowledge levels on services available, high cost of data packages and smartphones, low motivation, age factor, inability to update with technology, fear and low preference are major constraints perceived by the respondent as the mean score is 2.00 and above. The skills and knowledge levels can be increased by bringing awareness programmes and training to improve digital literacy competence among the farming community. Special internet packages with small amount data per day can be introduced and mobile phones which can operate for needs of the farmers can be developed with low cost for better reaching the advantages of the technology. Extension system can make better content development with using more picture based and video-based content of information which makes audience to engage better way in utilizing these social media platforms.

Table 1: Personal Constraints faced by the farmers using social media to receive agricultural information.

Sr. No.	Personal Constraints Statements	(n=120)				
		Strongly Agree	Agree	Disagree	Mean	Rank
1.	Lack of confidence in social media platforms	49	17	54	1.96	IX
2.	Fear in using digital technologies by farmers	33	64	23	2.08	VII
3.	Insufficient skills in using social media by farmers	81	35	04	2.64	I
4.	Age factor is restricting to use social media	34	71	15	2.16	V
5.	High cost of data and smart phones	52	63	05	2.39	III
6.	Inability to update in technological communication	34	70	16	2.15	VI
7.	Low preference towards social media usage	06	108	06	2.00	VIII
8.	Lack of motivation to adopt social media services	55	56	09	2.38	IV
9.	Shortage of time to use social media	26	57	37	1.91	X
10.	Low knowledge on services available in social media	62	52	06	2.47	II
11.	Fear of addiction or overuse of social media platforms	28	31	61	1.73	XI

Table 2: Technological Constraints faced by the farmers using social media to receive agricultural information.

Sr. No.	Technological Constraints Statements	(n=120)				
		Strongly Agree	Agree	Disagree	Mean	Rank
1.	Restricted availability of agriculture services in social media	69	39	12	2.48	III
2.	Irrelevancy of content on social media	60	50	10	2.42	VI
3.	Language problem in using social media	76	32	12	2.53	I
4.	Complexity of social media application	62	52	06	2.47	IV
5.	Lack of authenticity of individuals in social media	64	52	04	2.50	II
6.	Irrelevant information posting by members	62	52	06	2.47	IV

From the Table 2, it can be observed that the constraint “Language problem in using social media” ranked top with mean score 2.53, followed by “Lack of authenticity of individuals in social media” with mean score 2.50, “Restricted availability of agriculture services in social media” with mean score 2.48, “Complexity of social media application” with mean score 2.47, “Irrelevant information posting by members” with mean score 2.47 and “Irrelevancy of content on social media” with mean score 2.42. All the statement were reported means score more than 2.0. The constraint of language problem can be addressed by developing content in local vernacular language as the social media platforms supports almost all formats of languages. The content providers can be mentioned

their authenticity and details, it important that major research institutes can apply for verified tags from respective social media platforms. Integration of content in different social media platforms will help to avoid he restricted availability as the content disseminated in all platforms will help to reach more audience. The interface of the social media platforms can be more simplified and the machine learning of these can be improve in such way that, it can help user to easily locate the required information. It is strongly recommended that respective admins or hosts of the group or page need to verify the content that circulating in the platform. The unscientific information can be immediately removed or edited.

Table 3: Situational Constraints faced by the farmers using social media to receive agricultural information.

S. No.	Situational Constraints Statements	(n=120)				
		Strongly Agree	Agree	Disagree	Mean	Rank
1.	Lack of faith on social media platforms	23	87	10	2.11	V
2.	Believing in only traditional extension system	12	100	06	2.02	VII
3.	Insufficient infrastructure in villages	06	106	08	1.98	VIII
4.	Poor network connectivity in rural areas	13	101	06	2.06	VI
5.	Poor participation of other member in social media groups	39	78	03	2.30	III
6.	Poor / late replies from experts on social media	62	50	08	2.45	I
7.	Inadequate services on social media	35	77	08	2.23	IV
8.	Consumes more time to get information	53	62	05	2.40	II

From the Table 3, it was reported that the statement “Poor/late replies from experts on social media” ranked top with mean score of 2.45 and similar constraint was reported by (Darshan and Meena, 2017); (Abdullahi *et*

al., 2021), followed by “Consumes more time to get information” with mean score 2.40, “Poor participation of other member in social media groups” with mean score 2.30, “Inadequate services on social media” with

mean score 2.23, “Lack of faith on social media platforms” with mean score 2.11, “Poor network connectivity in rural areas” with mean score 2.06, “Believing in only traditional extension system” with mean score 2.02, the finding is in connection with findings of (Navinkumar *et al.*, 2017) and “Insufficient

infrastructure in villages” with mean score 1.98. The constraint poor or late replies can be addressed by the quick replies and frequent updates from the admin of the social media platforms. The lack of confidence can be addressed by proving the more authentic information and with timely relevant information.

Table 4: Other Constraints faced by the farmers using social media to receive agricultural information.

Sr. No.	Other Constraints	(n=120)		
		F	%	Rank
1.	e-mail mandatory in creation of social media platforms	63	52.50	I
2.	Social media applications are asking for frequent updates	42	35.00	II

From the Table 4, it can be observed that the 52.50 per cent of the respondents reported that “e-mail mandatory in creation of social media platforms” and 35.00 per cent reported that “Social media applications are asking

for frequent updates”. Phone number can be made as mandatory for creation of social media platforms and stable type of lite applications can be developed with less frequent updates.

Table 5: Suggestion expressed by farmers effective utilization of social media platforms.

Sr. No.	Suggestions	(n=120)		
		F	%	Rank
1.	Quick response from experts on social media platforms	93	77.50	III
2.	Crop based group networks need to develop in social media platforms	86	71.67	VII
3.	Provision of special internet package for farmers	96	80.00	I
4.	Content should be in local language	76	63.33	XII
5.	More photo and video-based content	62	51.67	XVIII
6.	Chronological publication of information crop wise in social media	69	57.50	XVI
7.	Better internet connectivity in rural area	71	59.10	XV
8.	Provision of subsidy in purchase of smart phones	65	54.10	XVII
9.	Providing training for famers to use digital platforms	88	73.34	V
10.	Marketing information should give priority	74	61.67	XIV
11.	Always right and appropriate information in social media form experts and other fellow farmers	85	70.83	VIII
12.	Information should be location specific by experts	75	62.50	XIII
13.	Reducing cost of mobile phones	87	72.50	VI
14.	Information in format of message should provide along with the video or voice or image	82	68.33	IX
15.	Personal visit of the experts along with the provision of agro advisories through social media	92	76.67	IV
16.	Discussion in social media should be more interactive	79	65.83	XI
17.	Specific alterative information should also provide along with information	94	78.33	II
18.	Specific and complete detailed information should provide regarding the chemical dosages	80	66.67	X

From the Table 5, it can be observed that the suggestion “ Provision of special internet package for farmers” with rank one with frequency 80.00 per cent, followed by “ Specific alterative information should also provide along with information” with 78.33 per cent, “Quick response from experts on social media platforms” with 77.50 per cent, “Personal visit of the experts along with the provision of agro advisories through social media” with 76.67 per cent, “Providing training for famers to use digital platforms” with 73.34 per cent, “ Reducing cost of mobile phones” with 72.50 per cent, “Crop based group networks need to develop in social media platforms” with 71.67 per cent, “Always right and appropriate information in social media form experts and other fellow farmers” with 70.83 per cent, “ Information in format of message should provide along with the video or voice or image” with 68.33 per cent, “Specific and complete detailed information should

provide regarding the chemical dosages” with 66.67 per cent, “Discussion in social media should be more interactive” with 65.83 per cent, “Content should be in local language” with 63.33 per cent, “Information should be location specific by experts” with 62.50 per cent, “Marketing information should give priority” with 61.67 per cent, “Better internet connectivity in rural area” with 59.10 per cent, “Chronological publication of information crop wise in social media” with 57.50 per cent, “Provision of subsidy in purchase of smart phones” with 54.70 per cent and “More photo and video-based content” with 51.67 per cent. It is recommended that the suggestions given by farmers i.e., special internet package to farmer can be given by internet service providers, the extension system and the admins are requested to send the alternative information for better adaptability of advisories based on availabilities as early as possible. It is important

suggestion that personal visit to the farmer by experts' field along with the agro advisories providing through social media. As communication technologies increasing rapidly it is as important that the competence skills among the people to use them also need to be addressed and training programmes on improving the digital skills need to conduct in large way. The suggestion complete information needed in content need to keep as one of the criteria in content development of social media. The suggestion more interactive throws light on that the groups that need to active participation on all participants and discussion.

CONCLUSION

A critical analysis of constraints and suggestion from the perception of farmers as the receivers of agricultural information disseminated through social media revealed the major personal constraints, technical constraints, situational constraints and other constraints in using social media. The constraints lacking sufficient skills in using the platforms effectively, content language, poor and late replies etc. need to be addressed. The suggestions given by farmers i.e., providing special internet package, alternate and complete information of agro advisories, quick response from expert etc., are the important suggestions that will improve in effective utilization of social media platforms as source of agricultural information. Irrespective of the constraints the social media platforms are familiar in field level and used as the major medium in communicating the agricultural information. This paper thrown light on the few major constraints and suggestions that are helpful in effective dissemination of agricultural information, and it is important to note that social media platforms made accessibility of disseminating the information in cheaper cost, faster way and reach large number of audiences. The social media platforms have potential of becoming of the major medium of disseminating agricultural information in next few years.

FUTURE SCOPE

The current investigation done on social media platforms as whole, and the major social media platforms constraint analysis can be conducted individual application. It will be helpful in giving better strategies for effective dissemination of these platforms in agricultural information.

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REFERENCES

- Abdullahi, K. A., Oladele, O. I. and Akinyemi, M. (2021). Attitude, knowledge and constraints associated with the use of mobile phone applications by farmers in Northwest Nigeria. *Journal of Agriculture and Food Research*, 6(1): 100212.
- Bhattacharjee, S. and Raj, S. (2016). Social media: Shaping the future role of agricultural extension and advisory services. Global Forum for Rural Advisory Services. Lindau, Switzerland.
- Chui, M., Manyika, J., Dobbs, R., Roxburgh, C., Sarrazin, H., Sands, G and Westergren, M. (2012). The social economy: Unlocking values and productivity through social technologies, Mckinsey global institute. http://www.mckinsey.com/insights/hightech_telecoms_internet/the_socialeconomy.
- Darshan, N.P. and Meena, B. S. (2017). Constraints in the Use of Social Media as Perceived by Researchers and Extension Personnel in Karnal District of Haryana, India. *International Journal of Current Microbiology and Applied Sciences*, 6(10): 3239-3243. doi: <https://doi.org/10.20546/ijcmas.2017.610.379>
- Eke, H. N., Charles, O. O and Odho, J. N. (2014). The use of social networking sites among the undergraduates' students of university of Nigeria, Nukka. Library philosophy and practice (e-Journal). <http://digitalcommons.unl.edu/libphilprac/1195>.
- Navinkumar., Dhananjaya, B., Hanumanthappa, M. and Ranjeeth, T. H. (2018). Constraints faced by the farmers in using mobile agro- advisory services. *International Journal of Current Microbiology and Applied Sciences*, 6(1): 2885-2890.
- Neill, O. B., Zumwalt, A. and Bechman, J. (2011). Social media use of cooperative extension family economics educators: online survey results and implications. *Journal of Extension*, 49(6), Article 18. <https://tigerprints.clemson.edu/joe/vol49/iss6/18/>
- Patra, K. and Gogoi, S. (2021). Usages of Social Media Sites among Adolescents: An Explorative Study. *Biological Forum – An International Journal*, 13(4): 71-75.
- Sandeep, G. P., Prashanth, P., Sreenivasulu, M., and Madhavilata, A. (2020). Social Media in Agriculture – A Profile Analysis. *International Journal of Current Microbiology and Applied Science*, 9(07): 2727-2736.
- Sharma, K., Dhaliwal, S. N., Singh, G. and Bishnoi, C. (2020). Assessment of socio-digital approaches for agricultural extension in Shri Muktsar sahib district of Punjab, *Indian Journal of Extension Education*, 56(3): 60-63.
- Singh, M., Burman, R. R., Sharma, P. J., Sangeetha, V. and Iquebal, M. A. (2015). Constraints faced in mobile based agro-advisory services and strategy for enhancing the effectiveness of mKRISHI. *Indian Research Journal of Extension Education*, 15(2): 119-122.

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