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Constraints and his suggestions perceived by tribal farmers in using WhatsApp messages

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Abstract

The study was conducted in 5 old KVKs, namely Kanker, Narayanpur, Dantewada, Bijapur & Jagdalpur of Bastar zone of Chhattisgarh. From the selected 5 old KVKs, 5 villages selected each KVK purposively for the study. It is a total tribal area and a 150 users (farmers) selected by the random sampling technique. An interview schedule was prepared for collection relating to constraints faced by whatsapp users for dissemination of information about agricultural technology. The several constraints found among the respondents which are responsible for the low effectiveness about whatsapp messages. They faced Personal constraints 2.10 (mean score), Economical constraints 2.19 (mean score, Social and cultural constraints 2.08 (mean score, Technical constraints 2.26 (Mean score, Physical constraints 2.02 (mean score, Communicational constraints 2.16 (mean score. Technical constraints revealed that the first main constraints with Mean score of 2.26. Followed by Economical constraints 2.19, Communicational constraints 2.16, Personal constraints 2.10, Social and cultural constraints 2.08 and Physical constraints 2.02. The user has not proper technical knowledge and facilities about whatsapp media. So farmers should provide the proper training programmes be organized to provide practical knowledge and govt. should develop the technical facilities on tribal areas. Tribal peoples should be given access to proper education and training.

Keywords: Constraints, users, knowledge, dissemination

1. Introduction

Indian agriculture is the pivotal sector for ensuring food and sustainable development, nutritional security and for alleviation of poverty. It's the largest source of livelihood in India. Approx. 70% of its rural household still depends primarily on agriculture. India is predominantly a rural country with two-third population in rural areas. It contributes about 17 percentages to the total GDP and provides employment to over 60 percentages of the population. After develop mobile technology smartphone users are commonly found in every country and enjoy the convenience of being able to access anything while on the go and from palm of their hand. According to ASER survey, Smartphone availability in rural India was 56.5 percentages in 2018, which increased to 61.8 percentages in 2020 and 67.6 percentages in 2021. Bastar Region is the rich in tribe's people comes in the state of Chhattisgarh, about 70% of the total population of the Bastar region are tribal, which represents about 30% of the total tribal population of Chhattisgarh. Bastar tribes have developed a distinct culture such as custom, dialect, rituals etc. and the tribal art known throughout the world. Mainly rice and millets are growing in this region, majority of farmers uses traditional method for farming, social media is very useful for disseminate agriculture related information. A user uses smartphone for calling, massaging, social media and others. Social media is very powerful key to express your thoughts. Major social media are YouTube, Facebook and whatsapp. All social media play important role in agriculture, whatsapp media is use for sharing thoughts like personal, social and information about agriculture.

Significance of the study

Through WhatsApp message media, provide the information to agricultural institutes and KVKs that transferring agricultural technology to tribal farmers. They know about peoples mental, physical and technical barriers for transferring agricultural technology.

2. Objectives

To study the constraints perceived by farmers in using WhatsApp messages and suggestions given by them to improve its effectiveness.

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3. Material and Methods

This study was carried out in the Bastar region of Chhattisgarh from 2020 to 22. There are seven districts in this zone. One KVK exists in each district. There are seven KVKs, and they are called Kanker, Narayanpur, Dantewada, Bijapur, Jagdalpur, Sukma, and Kondagao, respectively. Two new KVKs and five old KVKs are among these. This research was carried out in five previous KVKs: Kanker, Narayanpur, Dantewada, Bijapur, and Jagdalpur. According to C.G.'s agroclimatic zone, the Bastar zone is located on the Bastar Plateau. The study will use a list of WhatsApp users and non-WeChat users from the selected villages. Thirty WhatsApp users were selected at random from each village. As a result, only 150 WhatsApp users were chosen for the study. As a result, 150 people were chosen to be included in the sample for this study. The researcher himself collected the data, and a multistage sampling design was used to select the study sample. Using the structured interview schedule, the task was completed through a personal interview and personal contact with the selected users. Keeping this in view the present study was taken up to study the constraints of the whatsapp users. The outcomes of such frequency have been converted into mean score value with the help of the following formula:

Mean score value = frequency of a $\times 1 + b \times 2 + c \times 3$ / total respondents

Where, a = less, b=more, c=most

4. Results and Discussion

4.1 Constraint faced by users regarding whats app messages

The goal of the current study was to identify the problems to the respondent's dissemination of agriculture technology. There were several constraints found among the respondents which are responsible for the low effectiveness about whats app messages. The farmers were asked for prevalent constraints in receiving and use of the information which are presented in table 1. The data in table 4.1 presented the constraints which are divided into 6 segments as Personal constraints: Most of them 59 persons faced that this is More serious problem followed by 53 persons faced that it is a most serious problem and 39 persons faced that it is a least serious problem. Personal constraints have 4 sub constraints confronted by mean score value were "Lack of education" (M.S. 2.25) followed by "Poverty" (M.S. 2.17), "Lack of knowledge" (M.S. 2.13), "Lack of interest" (M.S. 1.92)., Economical constraints: Most of them 69 persons faced that

this is More serious problem followed by 45 persons faced that it is a most serious problem and 32 persons faced that it is a least serious problem. Economic constraints have 4 sub constraints confronted by mean score value were "Lack of employment" (M.S. 2.14) followed by "Lack of money" (M.S. 2.31) "High cost of data services" (M.S. 34), "New mobile phone is costly to have purchasing by farmers" (M.S. 2.24)., Social and cultural constraints: Most of them 61 persons faced that this is more serious problem followed by 50 persons faced that it is a most serious problem and 40 persons faced that it is a least serious problem, Social and cultural constraints have 4 sub constraints confronted by mean score value were "Traditional thinking" (M.S. 2.31) followed by "Traditional methods are more Popular" (M.S.2.12) and "Least monitoring is an obstacle" (M.S. 2.05), "Social interaction is impressive compare to WhatsApp" (M.S. 1.86)., Technical constraints: Most of them 72 persons faced that this is most serious problem followed by 45 persons faced that it is a more serious problem and 34 persons faced that it is a serious problem. Technical constraints have 9 sub constraints confronted by mean score value were "Weak and Slow Networking" (M.S. 2.36) followed by "Poor/low network connectivity" (M.S.2.35), "Internet not work properly" (M.S.2.34) "Lack of credible/quality information" (M.S. 2.32), "Difficult to load data files on the mobile phone" (M.S. 2.25), "Lack of electricity to charge electronic" (M.S. 2.20), "Shortage of electricity" (M.S. 2.19) and "Length of text messages" (M.S. 2.17), Physical constraints: Most of them 64 persons faced that this is more serious problem followed by 44 persons faced that it is a most serious problem and 44 persons faced that it is a least problem. Physical constraints have 3 sub constraints confronted by mean score value was "Inadequate services" (M.S. 2.20) followed by "Lack of practical exposure regarding technology sent by Mobile" (M.S.2.14) and "Lack of improved Agriculture tools" (M.S. 2.08)., Communicational constraints: Most of them 64 persons faced that this is most serious problem followed by 49 persons faced that it is a more serious problem and 35 persons faced that it is a least problem. Communicational constraints have 8 sub constraints confronted by mean score value were "No clarification of the doubts regarding technology sent by Mobile" (M.S. 2.32) followed by "Security concern are the main barriers (fraud/hacking/virus)" (M.S. 2.31), "Unsuitable and incomprehensible information" (M.S. 2.25), "Lack of active participation" (M.S. 2.24), "Problem of language when using WhatsApp" (M.S. 2.17), "Spreading Fake news in WhatsApp" (M.S. 1.89) and "Difficulty to find relevant information" (M.S. 1.28) respectively.

Table 1: Constraint faced by farmers regarding WhatsApp messages (N=150)

S. No.	Constraints	Less	More	Most	Mean Score
1.	Personal constraints	39	59	53	2.10
a.	Lack of interest	45	71	34	1.92
b.	Lack of knowledge	43	74	43	2.13
c.	Lack of education	32	48	70	2.25
d.	Poverty	39	46	65	2.17
2.	Economic constraints	32	45	69	2.19
a.	Lack of money	39	51	60	2.14
b.	Lack of employment	29	45	76	2.31
c.	New mobile phone is costly to have purchasing by farmers	27	42	81	2.36
d.	High cost of data services	34	45	71	2.24
3.	Social and cultural constraints	40	61	50	2.08
a.	Traditional methods are more Popular	41	58	51	2.12
b.	Social interaction is impressive compare to whatsapp	44	74	42	1.86
c.	Least monitoring is an obstacle	48	70	32	2.05

d.	Traditional thinking	29	45	76	2.31
4.	Technical constraints	34	45	72	2.26
a.	Lack of technical knowledge/skill	30	42	78	2.32
b.	Weak and Slow Networking	27	41	82	2.36
c.	Internet not work properly	42	44	74	2.34
d.	Lack of electricity to charge electronic gadgets	33	47	70	2.20
e.	Shortage of electricity	35	51	64	2.19
f.	Poor/low network connectivity.	41	45	74	2.35
g.	Difficult to load data files on the mobile phone	32	48	70	2.25
h.	Lack of credible/quality information	30	42	78	2.32
i.	Length of text messages	39	46	65	2.17
5.	Physical constraints	44	64	44	2.02
a.	Lack of improved Agriculture tools	46	65	39	2.08
b.	Lack of practical exposure regarding technology sent by Mobile	39	51	60	2.14
c.	Inadequate services	47	70	33	2.20
6.	Communicational constraints	35	49	64	2.16
a.	Lack of active participation	33	48	69	2.24
b.	Spreading Fake news in WhatsApp	45	76	29	1.89
c.	Problem of language when using WhatsApp	39	46	65	2.17
d.	Security concern are the main barriers. (fraud/hacking/virus)	30	43	77	2.31
e.	No clarification of the doubts regarding technology sent by Mobile	37	49	71	2.32
f.	Lack of feedback	39	47	64	2.16
g.	Difficulty to find relevant Information	36	42	72	1.28
h.	Unsuitable and incomprehensible information	32	48	70	2.25

M.S. = mean score

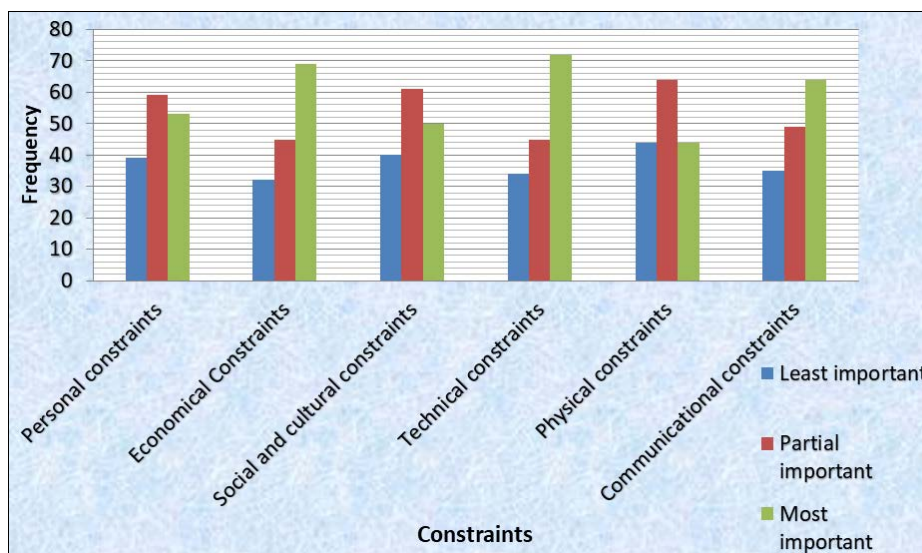


Fig 1: Constraint faced by farmers regarding WhatsApp messages.

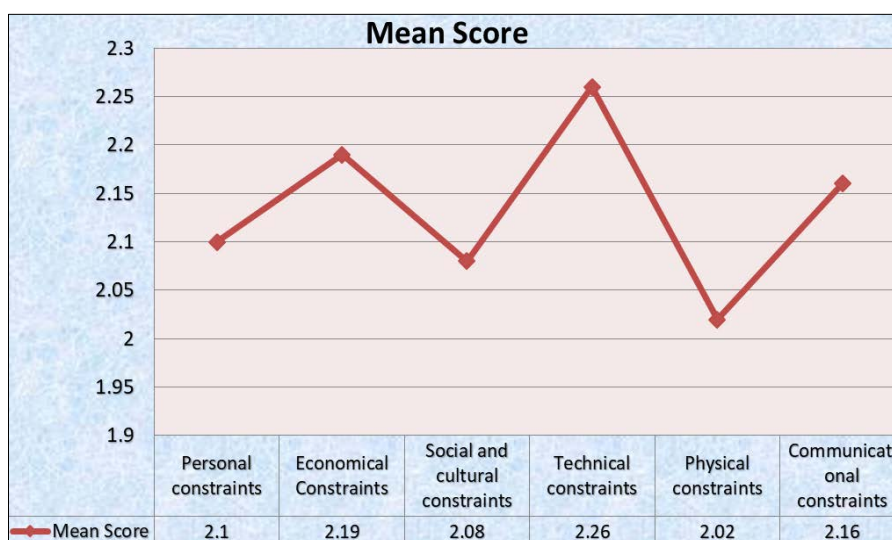


Fig 2: Mean Score of Constraint faced by farmers regarding WhatsApp messages.

Table 2: Suggestions confronted by WhatsApp users in effectiveness of WhatsApp messages for agricultural development. (n-150)

S. No	Suggestions	Frequency			Mean score
		Least important	Partial important	Most important	
1.	Knowledge about WhatsApp should be provided to increase information of users.	25	60	65	2.26*
2.	Knowledge about WhatsApp must be provided for users to increase the level of confidence.	27	81	42	2.1
3.	More extension activities should be Given	46	65	39	1.43
4.	Provide proper network facility	39	51	60	2.14
5.	More technological information should be given	33	47	70	2.24*
6.	Increase the speed of network or increase the quality of networking	30	50	69	2.24*
7.	Availability of technical help in greater degree	25	60	65	2.26*
8.	Need to address farmers' economic and social issue	27	42	81	2.36*
9.	Equipping the farmers with the necessary knowledge inputs	46	39	65	2.12
10.	Information related with agricultural development should be easily available and affordable	39	51	60	2.14
11.	The agriculture information should be specific requirement of each region and each socio economic category	33	48	69	2.24*
12.	The solution of problems should be on localized based and with multiple technological options to choose from depending upon farmers resources	29	45	76	2.31*
13.	More basic training messages should be available at block level	39	46	65	2.17*
	Over all	33	52	63	2.17

* Higher than average mean value M.S. = mean score

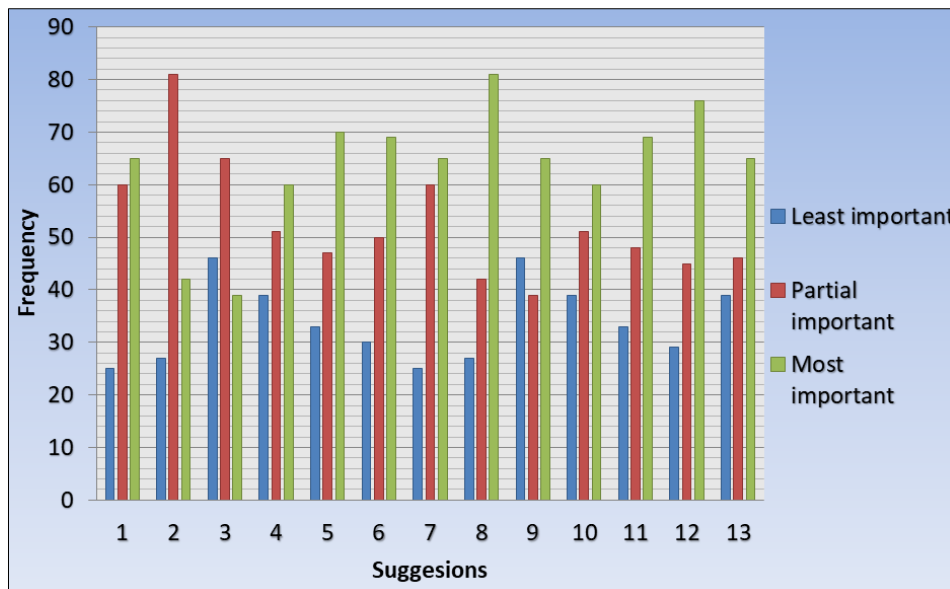


Fig 3: Suggestions confronted by WhatsApp users in effectiveness of WhatsApp messages for agricultural development.

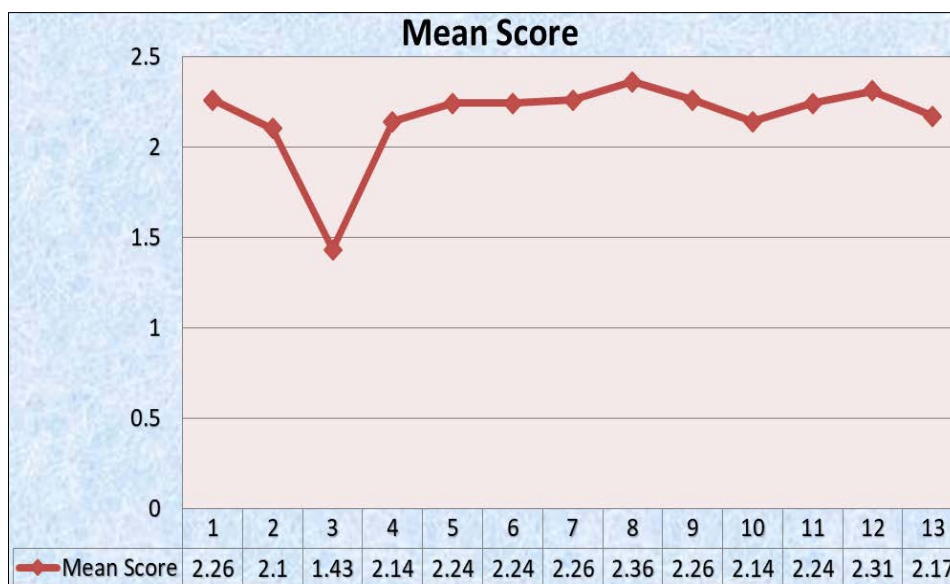


Fig 4: Mean score of Suggestions confronted by WhatsApp users in effectiveness of WhatsApp messages for agricultural development.

Table 4.2 and Fig. 3, 4 shows that opinion of WhatsApp users revealed the major suggestions (higher than average value) were "Need to address farmers' economic and social issue" (mean score 2.36) followed by "The solution of problems should be on localized based and with multiple technological options to choose from depending upon farmers resources" (mean score 2.31), "Increase the speed of network or increase the quality of networking" (mean score 2.24), "More technological information should be given" (mean score 2.24) and "The agriculture information should be specific requirement of each region and each socio economic category" (mean score 2.24).

On the other hand, majority of the respondents lower than average value were suggested "Provide proper network facility" (mean score 2.14), followed by "Information related with agricultural development should be easily available and affordable" (mean score 2.14), "Equipping the farmers with the necessary knowledge inputs" (mean score 2.12), "Knowledge about WhatsApp must be provided for users to increase the level of confidence" (mean score 2.1), "More extension activities should be Given" (mean score 1.43) respectively.

5. Conclusion

Major constraints faced by Whatsapp users were technical constraints such as Weak and Slow Networking, Poor/low network connectivity, Internet not work properly, Lack of credible/quality information, Difficult to load data files on the mobile phone and Lack of electricity to charge electronic, followed by economical, communicational, personal, social and cultural and physical constraints. It is suggested that for Need to address farmers' economic and social issue, The solution of problems should be on localized based and with multiple technological options to choose from depending upon farmers resources, Increase the speed of network or increase the quality of networking, More technological information should be given and The agriculture information should be specific requirement of each region and each socio economic category. So farmers should provide the proper training programmes be organized to provide practical knowledge and govt. should develop the technical facilities on tribal areas.

6. Implication

On the basis of the findings of the study and the personal experience of the researcher during data collection, the following implications were drawn.

- The present study provides real life problems towards use of mobile phone as an disseminate of Agri – Technology.
- The findings gave an overview of the extent to which social media presently being used by the farmers and what are they suggest them for getting agricultural information.

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8. Conflict of Interest

The authors have no conflict of interest.

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