



Effectiveness of WhatsApp in Delivering Livestock Advisory Services in Andhra Pradesh

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

In the present ICT era of communication, social media is playing a pivotal role in reducing the communication gap and sharing the information instantly anywhere in the world. Among various social media, WhatsApp particularly helps in formation of common interest groups for different categories of people for sharing information. The present study was undertaken with this objective, to study the effectiveness of WhatsApp communications on advisory services delivered to the livestock owners, in Andhra Pradesh. A WhatsApp group named "PASU VIGNANA VEDIKA" was created for the study purpose, to provide the livestock related information to the farmers instantly. A total of 95 farmers and 10 Veterinary Officers, using WhatsApp in their smart phones were selected and included in PASU VIGNANA VEDIKA". After 90 days of study period, the results were collected

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by personal interview method through structured interview schedule, analyzed and presented in frequencies and percentages. The majority of the livestock farmers had Favourable attitude (61.05%) towards using the WhatsApp group for farming purpose, opined that the information is easy to read (100%), and listen (89%), timely availability (89.47%), out of the queries posted in WhatsApp group majority were regarding health of animals (54.17%) especially skin, mastitis and digestive disorders. Further, most of the farmers used text based messages (56.25%) followed by photos (31.25%) of ailing animals. In view of the vast opportunities through WhatsApp group formation, government policies should be framed in such a way to utilize the full potential of this method of communication for the welfare of farming community.

Keywords: WhatsApp group; livestock services; communication; type of queries.

1. INTRODUCTION

Social media refers to the internet-based digital tools for sharing and discussing information among people. It refers to the user generated information, opinion, video, audio, and multimedia that is shared and discussed over digital networks [1]. It is a way to build relationships, share information, and connect with diverse audience of people we may never meet in real life. The benefits of this can be as large or as small as the farmers choose, depending on how much time the individual wish to spend on it.

WhatsApp offers several advantages in the livestock sector, it helps in one to many and many to many type conversations. In this specific interest group for livestock farmers, veterinary doctors and scientists will help the farmers to stay updated on all latest information and schemes and especially when they have emergency health issue for livestock by providing first aid help. It usually uses less internet data, convenient to use by even illiterate farmers through photo, audio and video messages. It is a more participative and demand driven tool. The Indian Council of Agricultural Research (ICAR) has been exploring the possibilities of utilizing social media tools for expanding its reach by engaging with farmers, partners and other stakeholders [2].

WhatsApp can increase the ambit and effectiveness of livestock advisory services, but the animal husbandry institutions are yet to harness this tool [3]. WhatsApp messenger is Highly effective in disseminating Agriculture technology information [4]. In fact, a systematic study under Indian context to understand the effectiveness of WhatsApp as an option for offering livestock advisory support to the farmers was found to be very scarce and hence, this study was undertaken to assess the attitude of

farmers towards utilization of WhatsApp as a tool of Livestock information delivery.

2. MATERIALS AND METHODS

Experimental research design was adopted for the present study. This research work was under taken for the first time to use this ICT tool for the benefit of farmers in Andhra Pradesh, India. The research is planned initially by creating a WhatsApp group entitled "PASU VIGNANA VEDIKA" by the researcher under the expert professors guidance. This group is planned in such a way that it will create a platform for the farmers, Veterinary Officers of the study area for free exchange of ideas, information, Sharing the farmers queries in Audio, Text and Video modes, so as to reduce the communication gap, saving time, energy and money. A total of ten Veterinary Assistant Surgeons (Veterinary Officers) who belong to the areas of the farmers present in the WhatsApp group and 95 progressive Livestock farmers from six different villages (Tirupati, Tiruchanuru, KV Palli, Nythanakalva, V Kota, S. Bandapalli) in Chittoor district of Andhra Pradesh state thus the total group members came to 106 (including the researcher).

All the farmers were personally called by phone and explained about the research work before adding to the group. This WhatsApp group was planned to make available for farmers for three months, the researcher got the answers for the farmer's queries from the subject matter specialists from the Veterinary College, Tirupati and also Veterinary Officers and posted in the group in a easy language understandable by the farmers. Field Veterinary Officers were also actively involved in providing answers to the farmer's queries and posting the information related to Government Schemes.

After the study period the farmers were called personally and collected information about the

effective utilization of the WhatsApp group under study. The responses were recorded on a pre structured interview schedule developed for the study and were analyzed by using the Microsoft Excel to find out the Frequencies, percentages and Standard Deviation. The Attitude of the respondents was estimated by administering a schedule developed by 17 statements on five point continuum scale developed for the study by consulting with the experts from university, field veterinary officers and farmers.

3. RESULTS AND DISCUSSION

3.1 Attitude

Majority (61.05%) of the respondents were having a favourable attitude towards using the WhatsApp for livestock advisory services. This might be due to the fact that the easy access to android phones, easy to operate, multiple information sharing styles and also farmers can get the reply instantly and exchange experience of other farmers easily [5-9].

3.2 Reasons to Use WhatsApp

Majority (96.84%) of the livestock farmers were using WhatsApp to find livestock related

information through different WhatsApp groups, Next to this they were using for chatting with farmers (93.68%), followed by other reasons. Farmers thought that they can use this type of ICT tool during their leisure time at home or while working in farm.

3.3 Visibility and Audibility of the Content as Perceived by the Farmers

The farmers whether educated or un educated is not a major obstruction from accessing the WhatsApp. Because of the advantages of voice, photo, video sharing modes this tool has got wide acceptance among farming community.

3.4 Applicability, Reliability and Credibility as Perceived by the Respondents

Majority of the farmers perceived that the major advantage of this WhatsApp group was timely availability of the information, with accurate and understandable content that helped to solve some of the minor to major issues regarding their animals health and production aspects. Further some farmers got a good results from their animals by applying the information shared through this WhatsApp group.

Table 1. Attitude of the WhatsApp using farmers

S. No	Attitude of the farmers	Frequency	Percentage
1.	Less favourable	15	15.79
2.	Favourable	58	61.05
3.	More favourable	22	23.16
	Total	95	100
Mean=59.75		SD=5.96	

Table 2. Reasons for using WhatsApp by farmers

S. No.	Reasons to use WhatsApp	Yes	No
1	Find livestock related information	92 (96.84%)	3 (3.16%)
2	Share professional livestock activities	86 (90.53%)	9 (9.47%)
3	Connect with livestock experts and farmers	68 (71.58%)	27 (28.42%)
4	To share livestock information	72 (75.79%)	23 (24.21%)
5	Find out livestock related news and events	49 (51.58%)	46 (48.42%)
6	Chatting with friends and family	89 (93.68%)	6 (6.32%)

Table 3. Visibility and Audibility of the Content as Perceived by the Farmers

S. No.	Statements	Always (%)	Sometimes (%)	Never (%)
1	Easy to read the message	95 (100%)	0	0
2	Voice is clear and easy to listen	89 (93.68%)	6 (6.32%)	0
3	Easy to understand a discussion	69 (72.63%)	26 (27.37%)	0
4	Easy to understand any photo shared	43 (45.26%)	45 (47.37%)	7 (7.37%)

Table 4. Applicability, Reliability and Credibility as perceived by the respondents

S. No.	Statements	Always	Sometimes	Never
1	Accuracy of the content	81 (85.26%)	14 (14.74%)	0
2	Timely Available	85 (89.47%)	10 (10.53%)	0
3	Easy and accurate language	80 (84.21%)	15 (15.79%)	0
4	Fully understandable	23 (24.10%)	59 (62.11%)	13 (13.68%)
5	Change in livestock practices according to the message received	13 (13.68%)	60 (63.16%)	22 (23.16%)

Table 5. Queries Received from Farmers through WhatsApp

S. No	Parameter	Number of queries received	Percentage
1	Feeding	7	14.58
2	Breeding	1	2.08
3	Health	26	54.17
	1. Respiratory -1 (3.85%)		
	2. Digestive -6 (23.07%)		
	3. Circulatory -1 (3.85%)		
	4. Nervous -1 (3.85%)		
	5. Skin -11 (42.31%)		
	6. Mastitis -6 (23.07%)		
4	Schemes	5	10.42
5	Miscellaneous	9	18.75
Total		48	100

Table 6. Distribution of Farmers Queries Based on Mode of Query

S. No	Mode of query	Number	Percentage
1	Text	27	56.25
2	Photo	15	31.25
3	Audio	3	6.25
4	Video	3	6.25
	Total	48	100

3.5 Queries Received from Farmers

Among the total queries received, majority are related to health aspects of the animals like skin, digestive and mastitis followed by feeding and schemes. The miscellaneous queries included farmers success stories, milk fever case, suggestions to improve milk yield, dairy, sheep and poultry farm management [10]. Farmers in the study area were busy with the farming activities round the clock, so they got solutions for the problems related to their animals through WhatsApp and by applying them they saved their time, energy and money in terms of transportation of animals to veterinary hospitals by a vehicle.

3.6 Distribution of Farmers Queries Based on Mode of Query

Majority (56.25 %) of the queries were in the form of Text in both local and English language

based on the respondents education levels, followed by queries by posting photo, audio and video messages.

During the study period the researcher posted 6 videos and 17 articles in local telugu language regarding different aspects of animal care, management, health, feeding, breeding, selection and government schemes etc.

4. CONCLUSION

From the study it can be concluded that the WhatsApp can be utilized as an instant information sharing platform to address some emergency issues in the animal husbandry sector but its effective utilization depends on the dedication of the group members in utilizing the information posted in the groups, any unnecessary messages posted in the group should immediately be addressed to maintain the

faith of other farmers in the group. The WhatsApp groups should be created by including the farmers, veterinary officers at mandal, district level and state level will help in eliminating the barriers of communication.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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