



# Utilization of Social Media by Input Dealers for Information Need in Agriculture

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## Authors' contributions

This work was carried out in collaboration between both authors. Author RR designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript and managed the analyses of the study. Author VS managed the literature searches. Both authors read and approved the final manuscript.

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## ABSTRACT

The study was carried out with an objective to assess the utilization of social media as an information source in agriculture by the input dealers. The study was conducted with randomly selected 80 respondents from Malda district. The study shows that extension services in agriculture was still the most preferred information sources for agricultural input dealers followed by social media. The increasing trend of using social media for agricultural information was very much encouraging. The study shows that social media platform such as WhatsApp was most preferred by the input dealers followed by YouTube and Facebook. Further, the study shows that the information searched on social media were highest on latest technologies available in agriculture followed by information on education and training and variety of seeds. The input dealers were considerable active in sharing of agricultural information in social media and considerable percentage of input dealers were having trust on social media for agricultural information need.

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## 1. INTRODUCTION

The input dealers play a significant role in dissemination of scientific agriculture knowledge to the farmers. It has been observed through different studies that input dealers are the first point of contact for any type of information in agriculture for the farmers. Extension participation of the input dealers in dissemination of agricultural information was medium [1]. But it was found from different studies that input dealers had medium level of knowledge gap about pesticides [2]. Social media and internet play a vital role as information sources of progressive farmers and input dealers which saves time and cost of the farmers without any time lag [3]. Social media platforms such as WhatsApp, Facebook, and YouTube are more familiar at field level and therefore extension personnel should focus on developing content in such a way that reaches farmers more effectively through these platforms [4]. Therefore, an attempt has been made to assess the sources of information for these input dealers who play a vital role in dissemination of agricultural information to the farmers.

## 2. METHODOLOGY

### 2.1 Research Design

An Ex post facto research design was used for the present study.

### 2.2 Sampling Procedure

#### 2.2.1 Location of the study

The study was conducted in West Bengal state which was purposively selected because it has good number of input dealers who has adopted social media for information in agriculture.

#### 2.2.2 Selection of district

Malda district of West Bengal was purposively selected for the study because this is one of the most developed districts in the state in horticulture as well as agriculture. Also, the districts comprised of good number of input dealers who utilize social media for information in agriculture and horticulture.

#### 2.2.3 Selection of respondents

To do the study, 80 respondents were randomly selected from Malda district. The social media

platforms which has been utilized at least once by the respondents were only considered in the study.

## 2.3 Extent of Usage and Need of Information

Extent of use in different sources for agricultural information, extent of exposure in social media and information need were ranked in 4 quantum (always=3, often=2, sometime=1 and never=0). Total Rank Order Score (TROS) were calculated adding all the score. Simple statistical tools such as frequency and percentage were used for further analysis and interpretation.

## 3. RESULTS AND DISCUSSION

The study shows that the extension services (TROS 204) was still the most utilised sources of agricultural information by the input dealers followed by social media (TROS 150) and fellow input dealers (TROS 143) (Table 1). Further, it was also found that extension services were always utilized by 67.50 percent of input dealers for agricultural information followed by social media (27.50%) and farm magazine (17.50%). The results showed that extension services provided by the govt. organisation agencies or the private companies were still the most preferred sources of agriculture information though social media and internet sources were gaining importance. The preference of extension services by the inputs dealers might be due the trustworthiness of the face to face extension services.

The increasing exposure to the social media as a source of information in agriculture had compelled to assess the media in which the input dealers relied most for their information. The study shows that social media tools such as WhatsApp (TROS 155) was most preferred by the input dealers followed by YouTube (TROS 113) and Facebook (TROS 86) (Table 2). Further, it was found that WhatsApp were always preferred by 23.75 percent of the input dealers followed by YouTube (16.25%) and Facebook (13.75%). The social media platforms considered in the study were only those which were utilized at least once by the input dealers. Social media proved to be very useful to farmers looking for solutions to their day-to-day agricultural problems relating to crop and livestock diseases [5] and about 93 per cent of farmers knew about social

media in sharing of photos of pest and diseases and seeking advice [6].The increased acceptance of social media has led to evaluation of various applications, tools, platforms, functions, and features for its effectiveness [7].

its need were fulfilled through social media for about 46 percent of the input dealers. Difficulty to find relevant information was one of the most serious constraints in using social media for information sources [8].

Table 3 depicts that the information need in social media by the input dealers were highest on improved technologies available in agriculture (TROS 168) followed by information on education and training (TROS 155), variety of seeds (TROS 148) and weather condition (TROS 147). Further, about 43 percent of the input dealers had always preferred social media for their information need in variety of seeds followed by improved technologies in agriculture (40%) and weather condition (35%).

Trustworthiness of the information was always a question through social media. The study shows that input dealers trust only to those contents when it was received from authenticated sources (77.5%) and considerable numbers of input dealers (38.75%) had applied many technologies after getting information through social media (Table 5). Further, considerable numbers of input dealers (37.5%) had perceived that application of new technologies after getting information through social media have enriched them. The information received by the input dealers in social media were not always trustworthy but the information they received on agriculture were mostly trustworthy (56.25%) and the input dealers (52.50%) forwarded only those information in agriculture which they trusted. Sharing of inappropriate information such as greetings and jokes by a few members in the WhatsApp group was the prime constraint in

Table 4 shows that input dealers were not very much active in posting queries (63.75%) and did not contribute to social media discussion (82.50%), but the input dealers were active in sharing agricultural information on social media (61.25%). Further, 47.50 percent of the input dealers preferred social media over other channels in obtaining agricultural information and

**Table 1. Extent of use of agricultural information by input dealers**

Sl.No.	Sources	Always	Often	Sometime	Never	TROS	Rank
1.	Extension services	54(67.50)	16 (20.00)	10 (12.50)	0 (0.00)	204	I
2.	Television	9 (11.25)	22 (27.50)	49 (61.25)	0 (0.00)	120	VII
3.	Radio	0 (0.00)	0 (0.00)	22 (27.50)	58 (72.50)	22	X
4.	Newspaper	2 (2.50)	38 (47.50)	40 (50.00)	0 (0.00)	122	VI
5.	Farm magazine	14(17.50)	27 (32.75)	30 (37.50)	9 (11.25)	126	V
6.	Internet	12(15.00)	38 (47.50)	26 (32.50)	4 (5.00)	138	IV
7.	Social media	22(27.50)	26 (32.50)	32 (40.00)	0 (0.00)	150	II
8.	Fellow input dealers	19(23.75)	25 (31.25)	36 (45.00)	0 (0.00)	143	III
9.	Progressive farmers	0 (0.00)	9 (11.25)	26 (32.50)	45 (56.25)	44	IX
10.	Input supply companies	2 (2.50)	23 (28.75)	36 (45.00)	19 (23.75)	88	VIII

TROS= Total Rank Order Score; Figures in parentheses indicate percentage

**Table 2. Extent of exposure to social media by the input dealers**

Sl. No.	Social Media	Always	Often	Sometime	Never	TROS	Rank
1.	Facebook	11 (13.75)	13 (16.25)	27 (33.75)	29 (36.25)	86	III
2.	Twitter	0 (0.00)	0 (0.00)	9 (11.25)	71 (88.75)	9	VIII
3.	LinkedIn	0 (0.00)	0 (0.00)	4 (0.00)	76 (95.00)	4	X
4.	Instagram	0 (0.00)	6 (0.00)	2 (2.5)	72 (90.00)	14	VI
5.	WhatsApp	19 (23.75)	37 (46.25)	24 (30.00)	0 (0.00)	155	I
6.	Telegram	0 (0.00)	2 (2.50)	9 (11.25)	69 (86.25)	13	VII
7.	YouTube	13 (16.25)	19 (23.75)	36 (45.00)	12 (15.00)	113	II
8.	Google+	0 (0.00)	0 (0.00)	7 (8.75)	73 (91.25)	7	IX
9.	Skype	0 (0.00)	0 (0.00)	16 (20.00)	64 (80.00)	16	V
10.	Messenger	0 (0.00)	6 (7.50)	13 (16.25)	61 (76.25)	25	IV

TROS= Total Rank Order Score; Figures in parentheses indicate percentage

**Table 3. Information needs on social media by the input dealers**

Sl. No	Information needs	Always	Often	Sometime	Never	TROS	Rank
1.	Improved technologies	32(40.00)	26(32.50)	20(25.00)	2(2.50)	168	I
2.	Business and trade	19(23.75)	26(32.50)	15(18.75)	20(25.00)	124	V
3.	Govt. agricultural policies and plans	24(30.00)	16(20.00)	15(18.75)	25(31.25)	119	VI
4.	Weather condition and environment	28(35.00)	22(27.50)	19(23.75)	11(13.75)	147	IV
5.	Variety of seeds	35(43.75)	12(15.00)	19(23.75)	14(17.50)	148	III
6.	Credit facilities, source, terms and conditions	9(11.25)	18(22.50)	23(28.75)	30(37.50)	86	VIII
7.	Price, market trend and stock available	19(23.75)	18(22.50)	19(23.75)	24(30.00)	112	VII
8.	Education and training	26(32.50)	26(32.50)	25(31.25)	3(3.75)	155	II

*TROS= Total Rank Order Score; Figures in parentheses indicate percentage*

**Table 4. Activity in social media use for agricultural information**

Sl. No.	Activity in social media	Yes	No
1.	Posting of queries on social media platforms	29(36.25)	51(63.75)
2.	Contributing on social media discussions	14(17.50)	66(82.50)
3.	Sharing of agricultural information on social media	49(61.25)	31(38.75)
4.	Preferring social media over other channels in obtaining agricultural information	38(47.50)	42(52.50)
5.	Information needs is fulfilled through social media	37(46.25)	43(53.75)

*Figures in parentheses indicate percentage*

**Table 5. Trustworthiness in social media for agricultural information**

Sl. No.	Trustworthiness in social media	Yes	No
1.	I trust only to those contents when it was received from authenticated sources	62(77.50)	18(22.50)
2.	I have applied many technologies after getting information through social media	31(38.75)	49(61.25)
3.	Application of new technologies after getting information in social media enrich us	30(37.50)	50(62.50)
4.	I don't trust all the information in social media but the information on agriculture is mostly trustworthy	45(56.25)	35(43.75)
5.	I forward only that information which I trust	42(52.50)	38(47.50)

*Figures in parentheses indicate percentage*

seeking information [5]. Trustworthiness of social media might be higher as there was significant higher level of knowledge among farmers before and after usage of social media platform [9].

#### 4. CONCLUSION

The study shows that social media play a vital role in dissemination of important information in agriculture. Social media tools such as WhatsApp, YouTube and Facebook are game changers in dissemination of information without much time lag. WhatsApp group with the created by the different scientific and extension organisations with the farmers and input dealers

has already proved to be very much promising in dissemination of scientific information to the farmers and input dealers. Therefore, the new tools of social media need to be utilization by the extension organisations, further input dealers and farmers needs to be encouraged for utilization of these tools for agricultural information sharing and dissemination of promising agricultural technologies.

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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