



Social Media Used by the Farmers in Sharing Farm Information

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Authors' contributions

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

Article Information

DOI: 10.9734/AJAEES/2022/v40i1031164

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/89059>

Original Research Article

Received 11 May 2022
Accepted 19 July 2022
Published 30 August 2022

ABSTRACT

Social media has emerged as a highly powerful tool in facilitating online social interactions and has shown tremendous potential in facilitating information exchange among individuals. It has been extensively used by farmers to tremendous increase in the number of smart-phones users during the last decade. A study was conducted during 2021-22 to find out the different social media being utilized by the farmers. A total of 140 progressive farmers who are using social media were randomly selected from purposively selected blocks of the Kota division of Rajasthan. Results of the study revealed that WhatsApp, YouTube, and Facebook were the most popular social media tools which are being used by farmers for sharing farm information. Keeping in touch with extension workers/ scientists, sharing or capturing information, and socializing with relatives /contact were major purposes for the farming community on social media sites. It can be concluded that social media would deliberately remain as a booster or supporter or enhancer to the farming community.

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Keywords: Attitude; google+; flickr; information; internet; telegram.

1. INTRODUCTION

In any field of development, information is power, and information & communication technologies in recent times have brought this power to the fingertips of the people through its recent addition – social media. Social media has great potential to be used as a tool of communication and networking for the benefit of the farming community. Social media has completely changed the topography of personal communication and taking on the world of professional communication as well. Aided by mobile phones, social media is spreading fast across the world. Today's world is the world of 'Social Media' and various social media tools such as Facebook, Twitter, YouTube, LinkedIn, WhatsApp, Research gate, etc. are becoming greater ways of sharing agricultural information.

According to Merriam-Webster [1], social media refers to different kinds of electronic communication including social networking websites through which their users can form online communities for sharing ideas, messages, information, and videos. The basic philosophy of social media is the democratization of information, communication, and knowledge management [2]. Social media refers to internet-based digital tools for sharing and discussing information among people. It refers to the user-generated information, opinion, video, audio, and multimedia that shared and discussed over digital networks [3]. Social media means interactions among people in which they create, share, consume and exchange information and ideas in virtual communities and networks. Social media such as Facebook, Twitter, YouTube, and blogs are emerging as appropriate platforms to share information and create awareness among various stakeholders to generate and shape the content of the event. It gives farmers a voice and an opportunity to directly connect with their customers, which can help in direct marketing and increased profits alongside facilitating mass-personal communication [4].

Social media has emerged as a highly powerful tool in facilitating online social interactions and has shown tremendous potential in facilitating information exchange among individuals. Excessive growth of contemporary social media tools has primarily affected the characteristics of social relations and human psychology. Various social media platforms such as social networking

sites (Facebook, Google⁺); micro-blogs (Twitter, Instagram); content communities (YouTube, Flickr, Tumbler), forums (Google hangout); socially-integrated messaging platforms (WhatsApp, Snapchat, Facebook, Telegram); and professional networking platforms (ResearchGate, LinkedIn, Academia.edu) have emerged over the past two decades. Number of internet users mostly use YouTube, Facebook, and WhatsApp for receiving, creating, and sharing information. Most social media does not require special skills and training, however, reading and writing skills are required. Access to smartphones and internet facilities allows users to share their interests, experiences, and circumstances. The fast-growing use of social media and mobile technologies create opportunity for the dissemination of technologies which can facilitate creating, sharing, preserving, and dissemination of knowledge and skills to transform agriculture [5]. WhatsApp has proved to be the potential to construct knowledge [6]. Therefore, recent developments in social media have paved a way for connecting more farmers and sharing farm information. Thus, the present study was conducted to find out the different social media being utilized by the farmers and attitudes towards social media use in farming in the Kota division of Rajasthan.

2. RESEACH METHODOLOGY

The study was conducted in the Kota division of Rajasthan during 2021-22. Kota division was selected purposively because it is the agri-dominant region with ample high-yielding varieties, rich black fertile alluvial soils, strong irrigation, advanced farming practices adopted by the farmers, and higher crop productivity than the average yield of the state and in some cases, higher than the average yield of the country. One Panchayat Samiti from each district of the Kota division namely; Ladpura (Kota), Anta (Baran), Bundi (Bundi), and Jhalrapatan (Jhalawar) was purposively selected wherein; Krishi Vigyan Kendra's (KVKs-Farm Science Centres) are located. A list of KVK progressive farmers who are using social media was prepared in consultation with officials of respective KVKs. Subsequently, an equal number of thirty-five progressive farmers from each selected Panchayat Samiti were randomly selected. The data were collected from 140 randomly selected progressive farmers. For this purpose, a semi-

structured interview schedule was developed and data were processed, tabulated, and analyzed.

2.1 Data Analysis Tool

Percentage: Percentage values were calculated to make simple comparisons. The frequencies of a particular cell were divided by the total number of respondents and multiplied by 100.

$$P = \frac{x}{N} \times 100$$

Where,

P = Percentage

x = Frequency of a particular cell

N = Total number of respondents

Mean: It was obtained by adding the weight of all respondents or statements and then dividing by the total number of respondents or statements.

$$AM = \frac{\sum x}{n}$$

Where,

AM = sum of each of the individual comparison

N = Total number of respondents

$\sum x$ = sum of all the pairs in a distribution

Mean Percent Score (MPS): It was computed by multiplying the total obtained score of the farmers by 100 and dividing by the maximum obtainable score under each item. The formula is as under:

$$\text{Mean Per Cent Score} = \frac{\text{Total Score Obtained}}{\text{Maximum Possible Obtainable Score}} \times 100$$

3. RESULTS AND DISCUSSION

3.1 Socio-economic and Psychological Profile of the Respondents

The data in the Table 1 revealed that the majority of the respondents belonged to the middle age 84 (60.00%) group. It was followed by the young age 32 (22.86%) and old age 24 (17.14%) group respectively. The young farmers have the potential to handle android smartphones and used social media better than aged persons. The

maximum number of 68 (48.57%) the respondents had possessed a medium level of education status followed by a low 53 (37.86%) level of education and a high level of 19 (13.57%) education status respectively. The majority 129 (92.14%) of the respondent were found male and an overwhelming majority 136 (97.14%) of the respondents were married. The majority 89 (63.57%) of the respondents had medium families followed by small families 27 (17.86%) and large families 24 (17.14%) respectively.

It was also observed that nearly half 63 (45.00%) of the respondents had 2.00-4.00 ha of land and fell under the semi-medium land holding category, followed by 30 (21.42%) of the respondents who had 1.00-2.00 ha of land which were belonged to small landholding category. The majority 107 (76.43%) of the farmers in the study area possessed a medium level of ICT material and the maximum number of 61(43.58%) respondents had an annual income between 1 to 5 lakhs. Whereas 43 (30.71%) of respondents had an annual income of less than 1 lakhs followed by 32 (22.86%) of the respondents who had an annual income between 5 to 10 lakhs and only 4 (2.85%) respondents had annual income more than 10 lakhs, respectively. It was clearly understood from Table 1, that the maximum number of 65 (46.43%) of the respondents had an agriculture + livestock farming system. It was followed by agriculture + livestock + horticulture system 60 (42.85%), agriculture + livestock + horticulture + beekeeping farming system 8 (5.72%), and agriculture + livestock +bee keeping farming system 7 (5.00%) in the study area, none of the respondents did agriculture alone as their farming system. The maximum number of 68 (48.57%) the respondents did business as their subsidiary enterprise.

The Table 1 further revealed that the majority 87 (62.61%) of the respondents had moderate innovativeness, followed by a high 37 (26.14%) level of innovativeness and a low level of 16 (11.43%) of innovativeness respectively in the study area. The majority 81 (57.85%) of the respondents had a medium level of extension participation followed by a high 34 (24.29 %) and low 25 (17.86%) level of extension participation respectively.

Table 1. Socio-economic and psychological profile of the respondents (n=140)

| S.N. | Profile | Levels/ Category | Number | Per cent |
|------|-------------------------------|--|--------|----------|
| 1 | Age | Young | 32 | 22.86 |
| | | Middle | 84 | 60.00 |
| | | Old | 24 | 17.14 |
| 2 | Education Status | Low | 53 | 37.86 |
| | | Medium | 68 | 48.57 |
| | | High | 19 | 13.57 |
| 3 | Gender | Male | 129 | 92.14 |
| | | Female | 11 | 07.86 |
| 4 | Marital status | Unmarried | 1 | 00.71 |
| | | Married | 136 | 97.14 |
| | | Widow/widower | 03 | 02.15 |
| 5 | Family size | Small | 27 | 19.29 |
| | | Medium | 89 | 63.57 |
| | | Large | 24 | 17.14 |
| 6 | Landholding | Marginal | 13 | 09.29 |
| | | Small | 30 | 21.42 |
| | | Semi-medium | 63 | 45.00 |
| | | Medium | 10 | 07.14 |
| | | Large | 24 | 17.15 |
| 7 | Material possession | Low | 7 | 05.00 |
| | | Medium | 107 | 76.43 |
| | | High | 26 | 18.57 |
| 8 | Annual income | Less then 1 Lakhs | 43 | 30.71 |
| | | Between 1-5 Lakhs | 61 | 43.58 |
| | | Between 5-10 Lakhs | 32 | 22.86 |
| | | More then 10 Lakhs | 4 | 02.85 |
| 9 | Farming system | Agriculture + Livestock | 65 | 46.43 |
| | | Agriculture + Livestock + Horticulture | 60 | 42.85 |
| | | Agriculture + Livestock +Bee keeping | 07 | 05.00 |
| | | Agriculture + Livestock + Horticulture + Bee keeping | 08 | 05.72 |
| 10 | Subsidiary enterprises | Government service | 07 | 05.00 |
| | | Business | 68 | 48.57 |
| | | Private job | 26 | 18.57 |
| | | Shop | 39 | 27.86 |
| 11 | Innovativeness | Low | 16 | 11.43 |
| | | Moderate | 87 | 62.14 |
| | | High | 37 | 26.43 |
| 12 | Extension participation | Low | 25 | 17.86 |
| | | Medium | 81 | 57.85 |
| | | High | 34 | 24.29 |
| 13 | Achievement motivation | Low | 23 | 16.43 |
| | | Moderate | 89 | 63.57 |
| | | High | 28 | 20.00 |
| 14 | Information sharing behaviour | Low | 24 | 17.14 |
| | | Medium | 65 | 46.43 |
| | | High | 51 | 36.43 |

Higher percentage of the respondents had a moderate level of achievement motivation 89 (63.57%), followed by a high 28 (20.00%) and low 23 (16.43%) level of achievement motivation respectively. Maximum number of 65 (46.43%) the respondents in the study area had a medium level of information sharing behaviour followed by a high level of 51 (36.43%) and a low level of 24 (17.14%) of information sharing behaviour, respectively. Similar results were also reported by Suchiradipta and Saravanan, [7], Balkrishna and Deshmukh [8], Thakur and Chander [9], and Kaur and Singh [10].

3.2 Different Social Media being Utilized by the Farmers

The data from Table 2 depicted that WhatsApp was the most popular social media platform used by the respondents (MPS 80.12) and assigned the first rank among social media tools. It was followed by YouTube (MPS 79.24), Facebook (MPS 76.98), Google+ (MPS 73.01), Instagram (MPS 70.53), Blogs (MPS 69.14), Agriculture Apps (MPS 68.64), Twitter (MPS 67.49) and were assigned II, III, IV, V, VI, VII, and VIII rank respectively. Thus, the most popular social media tools i.e. WhatsApp, YouTube, and Facebook are being used by the farmers for sharing farm information. Similar results were also reported by Meena et al. [11], Irungu et al. [12], Balkrishna and Deshmukh [8], Thakur and Chander [9], and Gour [13].

The data on the use of social media behaviour among farmers revealed that the majority of the respondents (82.15%) used WhatsApp regularly followed by some time (13.57%) and only a few respondents (4.28 %) never used WhatsApp in the study area. The majority of the respondents (57.86%) used Facebook regularly followed by some time (27.86%), and 14.18 % of respondents never used Facebook. Similarly, the majority of the respondents (63.57%) viewed Youtube channels regularly and 24.29% of respondents viewed it sometime for sharing agricultural information. Apart from social media, the respondents were also used Instagram (44.29% regular and 27.14 % sometimes), Blogs

(32.14% regular and 37.14% sometimes), Agriculture Apps (29.29% regular and 36.43% sometimes), Google⁺ (26.44% regular and 34.38% Sometimes), and Twitter (17.86% regular and 33.57% sometimes) for sharing and receiving farm information in the study area. WhatsApp, YouTube, and Facebook have gained more popularity among agricultural practitioners to share farming-related information because these tools are simpler and easy to use, client-specific, user-generated content, enables one to many and many to many types of conversation and facilitating, discussion, multiple forms of sharing ranging from text-based messages to audios, visuals; audiovisual and even web links making it an information-enriched platforms.

3.3 Purpose of Social Media Tools Used

Table 3 revealed that the overwhelming majority of the respondents 108 (77.14%) used social media most importantly for purpose of keeping in touch with extension workers/ scientists and less importantly about 115 (82.14%) of the farmers used social media for marketing/sale product. It was also clearly indicated that the majority 103 (73.57%) of the respondents used social media most importantly for sharing or capturing information, about half of the respondents 69 (49.29%) used social media for socialization with relatives/contact, and 67 (47.86%) for occupational networking, The Mean and rank obtained in ascending order were keeping in touch with extension workers/scientists (M.S. 2.72) and assigned I rank. It was followed by sharing or capturing information (M.S 2.57), socialization with relatives /contact (M.S. 2.37), occupational networking (M.S. M.S. 2.11), marketing/sale product (1.24), and were assigned II, III, IV, and V rank respectively. keeping in touch with extension workers/ scientists, sharing or capturing information, and socialization with relatives /contact were major purposes for farming communities on social media sites. The findings are in congruence with that of Chowdhury and Hambly Odame [14], Irungu et al. [12], Suchiradipta and Saravanan [7], and Khan and Du [15].

Table 2. Social media tools being utilized by the respondents (n= 140)

| S. No. | Social Media Tools | Regular | | Sometimes | | Never | | MPS | Rank |
|--------|---------------------|---------|-------|-----------|-------|-------|-------|-------|------|
| | | N | % | N | % | N | % | | |
| 1. | Facebook | 81 | 57.86 | 39 | 27.86 | 20 | 14.28 | 76.98 | III |
| 2. | WhatsApp | 115 | 82.15 | 19 | 13.57 | 6 | 4.28 | 80.12 | I |
| 3. | Twitter | 25 | 17.86 | 47 | 33.57 | 68 | 48.57 | 67.49 | VIII |
| 4. | Instagram | 62 | 44.29 | 38 | 27.14 | 40 | 28.57 | 70.53 | V |
| 5. | Google ⁺ | 37 | 26.44 | 48 | 34.28 | 55 | 39.28 | 73.01 | IV |
| 6. | YouTube | 89 | 63.57 | 34 | 24.29 | 17 | 12.14 | 79.24 | II |
| 7. | Agriculture Apps | 41 | 29.29 | 51 | 36.43 | 48 | 34.28 | 68.64 | VII |
| 8. | Blogs | 45 | 32.14 | 52 | 37.14 | 43 | 30.72 | 69.14 | VI |

Table 3. Purpose of social media tools used by the respondents (n= 140)

| S. No. | Purpose of social media | Most important | Important | Less Important | Mean | Rank |
|--------|---|-----------------|----------------|-----------------|------|------|
| 1. | Sharing or capturing information | 103 (73.57%) | 14 (10.00%) | 23 (16.43%) | 2.57 | II |
| 2. | Occupational networking | 67 (47.86%) | 24 (17.14%) | 49 (35.00%) | 2.11 | IV |
| 3. | Socialization with relatives /contact | 69 (49.29%) | 55 (39.29%) | 16 (11.42%) | 2.37 | III |
| 4. | Keeping in touch with extension worker/scientists | 108 (77.14%) | 26 (18.57%) | 06 (4.29%) | 2.72 | I |
| 5. | Marketing/sale product | 05 (3.57%) | 20 (14.29%) | 115 (82.14%) | 1.24 | V |

4. CONCLUSION

Social media networks have no doubt affected the lives of rural people. Social media are electronic communication tools that allow users to interact, create, share, retrieve, and exchange information and ideas in any form that can be discussed, archived, and used by virtual communities and networks. It can be concluded that WhatsApp, YouTube, and Facebook were the most popular social media platforms being utilized by the farmers for sharing farm information. Keeping in touch with extension workers/ scientists, sharing or capturing information, and socializing with relatives /contact were major purposes for the farming community on social media sites. Social media utilization in sharing farm information was a very good initiative taken in sharing farm information.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:

*The peer review history for this paper can be accessed here:
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