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Social media: A tool to disseminate agricultural technology through farmers training

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Abstract

Social media plays a significant role in the agriculture sector, especially in existing farmers' associations in the country; the dissemination of agricultural information is highly required to maintain the connection of the members and agencies that help them (Yobhel *et al.*, 2022). Presently various forces are working to change the agricultural extension from a process of technology transfer to a process of facilitating wide range of communication, information and advocacy services (Kumar and Ratnakar, 2016). Farmers were found to have a positive attitude toward using social media platforms to improve their agricultural knowledge. Usage of social media for conducting farmers training will assist them to gain knowledge on agriculture. In addition, social media platforms such as Twitter, Facebook, and YouTube are being used to educate farmers all over the country (Jijina and Raju, 2016). In the present study similar numbers of farmers registered for the training sessions on apiculture, mushroom cultivation, and Azolla production, which indicates that only a selected set of educated farmers are interested in taking advantage of these online training programmes. The majority of farmers made registration through Whatsapp (38.5%) followed by Facebook (21.7%), Instagram (21.5%), Telegram (16.7%) and Twitter (1.49%).

Keywords: Agriculture extension, Facebook, social media, WhatsApp, and YouTube

Introduction

Agriculture plays a crucial role in the economy of many countries, especially those in the developing world. However, despite the potential for agriculture to contribute to economic growth and poverty reduction, many smallholder farmers still struggle with low productivity and income levels. To address this challenge, agricultural extension services have been established to disseminate agricultural technology to farmers. With the rise of social media, there is an opportunity to use this platform to reach more farmers and disseminate knowledge on agricultural technology. This article examines the potential of social media in farmers' training to disseminate agricultural technology.

Agricultural extension services have been used for decades to disseminate agricultural technology to farmers. These services typically involve face-to-face training sessions, workshops, and field days. While these methods are effective, they are expensive, time-consuming, and limited in reach. With the growth of social media, there is an opportunity to use this platform to reach more farmers and disseminate knowledge on agricultural technology. Social media offers a cost-effective way to disseminate agricultural knowledge to farmers in rural areas, where access to agricultural technology is often limited.

Materials and Methods

The 2019 Batch - Final Year B.Sc. (Hons.) Agriculture students of Palar Agriculture College in their eighth semester (13-03-2023 - 24-07-2023), went through the course of AEX 451 Advanced Digital Tools for skill development (0+10). 25 students chose this course and were divided into three groups. The present study was taken up to analyse the dissemination of agricultural knowledge through farmers' training by using social media. Each group conducted an online training programme to farmers. Advertisement posters and banners about the training were prepared through apps like Photoshop, Canva and Picsart. These were shared through Whatsapp, Facebook, Instagram, Twitter and Telegram. Google Forms were created and they collected farmers' registration details for these training programs through it. Training programmes were conducted through Google meet and YouTube. Certificates and e-booklets about the training programme conducted - Apiculture, Mushroom Cultivation and Azolla Production were shared to every individual who attended the online training. The collected data from the respondents were analysed through percentage analysis statistical tool.

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Results and Discussions

Data collected through Google forms for the registrations of these training programmes was tabulated for analysis.



Fig 1: Posters of farmers training shared in social media

Table 1: Social media platforms and total registrations

S. No	Social Media Platform	Total Registrations	Percent
1	Whatsapp	387	38.50
2	Facebook	217	21.70
3	Twitter	15	1.49
4	Telegram	168	16.78
5	Instagram	216	21.53
	Total	1003	100.00

From Table 1, Whatsapp has shown a large impact on

registration by a huge number of respondents (38.5 percent) followed by Facebook and Instagram which has registrations of 21.70 percent and 21.53 percent, Twitter has given the least number of registrations (1.5 percent). This finding is supported by Sandeep *et al.* 2020, who also reported that Whatsapp, Facebook, and YouTube are the most preferred social media platform among farmers. Most rural farmers have little or non-formal education to enable them participates in trending world-class innovations Sennuga, Olayemi & Barnabas, (2022) [10].

Table 2: Total registrations and participation percentage of training programmes

S. No	Name of the training programme	No. of respondents registered	No. of respondents participated	Conversion Percent %	Hosted platform
1	Apiculture	340	263	77.35	Google Meet
2	Mushroom Cultivation	408	352	86.27	YouTube
3	Azolla Production	255	190	76	Google Meet

From Table 2, it could be observed that participation of respondents to Apiculture training through Google meet has 77.35 percent, Mushroom cultivation training through Google Meet hosted on YouTube has 86.27 percent of the participants and Azolla production training through Google Meet has 76.00 percent of the participants. Due to the usage of

YouTube as a medium of training for Mushroom cultivation, we have seen more participants. It could be concluded YouTube is an easily accessible medium of communication. This finding derived support from (Huang & Grant, 2020) who also reported that platforms, like YouTube, have changed the way people access scientific information.

Table 3: Number & Percentage of each social media platform in registrations

S. No	Name of the training programme	Social Media Platform									
		Whatsapp		Facebook		Twitter		Telegram		Instagram	
		No of Farmers	Others	No of Farmers	Others	No of Farmers	Others	No of Farmers	Others	No of Farmers	Others
1	Apiculture	20(5.88%)	148(43.5%)	5(1.47%)	42(12.35%)	-	15(4.41%)	5(1.47%)	66(19.41%)	1(0.3%)	38(11.17%)
2	Mushroom Cultivation	15(3.6%)	100(24.5%)	5(1.22%)	81(19.85%)	-	-	-	55(13.4%)	7(1.71%)	150(36.7%)
3	Azolla Production	14(5.60%)	90(36%)	4(1.6%)	80(32%)	-	-	2(0.8%)	40(16%)	5(2%)	15(6%)

From Table 3, among the different social media platforms mentioned above in the table, the majority of farmer’s registration were through Whatsapp. Whatsapp is being used for sharing agriculture-based information by farmers. These groups are being managed by farmers themselves especially progressive farmers and agriculture officers (Devesh and

Mahesh, 2018) [2].

- Apiculture training has the majority of registrations from Whatsapp-Farmers (5.8 percent), others (43.5 percent)
- Mushroom cultivation training has the majority of farmer registrations from Whatsapp (3.6 percent) and others registrations majorly from Instagram (36.7 percent),

- Azolla production training has the majority of registrations from WhatsApp (farmers (5.60 percent), others (36 percent)).

This finding derives support from the findings of Dervish Thakur *et al.*, 2017 who also reported that Whatsapp is one of the most popular social media tools and offers many unique advantages and is the most popular platform used among farmers. Chaba, 2015. Next highest percentage of registrations is through Facebook followed by Instagram, this finding derived support from Mamgain *et al.*, (2020) who also reported Facebook having the highest popularity (64.7%).

Benefits of farmers training through social media

Farmers training through social media offer several benefits over traditional extension services. These benefits include

1. **Wide Reach:** Social media has a wide reach, allowing farmers to access training sessions from anywhere in the world. This means that farmers in remote areas can access training sessions, which would otherwise be impossible with traditional extension services.
2. **Cost-Effective:** Social media is a cost-effective way to disseminate agricultural knowledge to farmers. This is particularly important for smallholder farmers who often cannot afford to pay for training sessions.
3. **Timely and Relevant Information:** Social media allows for the real-time dissemination of agricultural knowledge to farmers. This means that farmers can access information on new agricultural technologies as soon as they become available.
4. **Interactive Communication:** Social media allows for interactive communication between farmers and extension workers. Farmers can ask questions and receive feedback from extension workers, enhancing the effectiveness of training sessions. Use of Social Media in Farmer's Training

Conclusion

Farmers training through social media offer a cost-effective way to disseminate agricultural knowledge to farmers. Social media platforms such as Facebook, Twitter, Whatsapp, and YouTube offer a wide reach, interactive communication, and real-time dissemination of information. Social media usage also has doubled among farmers. Bhargava, 2015. The training programme on Apiculture, Mushroom Cultivation and Azolla Production had similar number of registrations in the farmers side this shows only a certain group of educated farmers are interested to benefit from these online training programmes. It could be concluded that most participants have registered through Whatsapp. Farmers who attended made suggestions to conduct the training after evening or at night as it was the most preferable time for attending the training session. Awareness among farmers on social media usage must be improved so that effective knowledge dissemination could be achieved.

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