

‘Farms to Feeds’ Integration of Social Media by Farmer’s Training Centres in Kerala: A Comprehensive Analysis

Midhila M S¹, Dr. S Dinesh Babu²

¹Ph. D Research Scholar, Dept. of Visual Media and Communication, School of Arts, Humanities and Commerce, Amrita Vishwa Vidyapeetham, Kochi Campus, Kerala, India.

² Assistant Professor (Sr. Gr), Dept. of Visual Media and Communication, School of Arts, Humanities and Commerce, Amrita Vishwa Vidyapeetham, Kochi Campus, Kerala, India.

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ABSTRACT

Rapid technological advancements in communication have altered the accessibility and availability of timely information. The agricultural landscape of Kerala, which is characterised by diverse farming practices and communities, requires innovative communication channels for disseminating timely technological information. Integrating social media with the information dissemination strategies of Farmer’s Training Centres will aid in collaborative communication and accessibility of timely information. This study aims to analyse how effective social media integration is in facilitating agriculture knowledge transfer and disseminating technology training by FTCs. Further, the study seeks to determine the significant constraints and benefits of using social media for agricultural communication and knowledge transfer. Leveraging a mixed method approach of document analysis, in-depth interviews were employed to explore the integration of social media by FTCs and its effectiveness on agricultural information dissemination.

The preliminary findings from the study suggested improvements in the integration and utilisation of social media by the Farmers' Training Centres across Kerala.

Keywords: Agri information, Technology transfer, Social media, Information dissemination, Digital outreach

Introduction

Kerala’s agricultural sector is characterised by small-scale and subsistence farming, where the cultivation of rice, crops, spices, and rubber is very common. Agricultural training centres in Kerala have played a significant role in disseminating agricultural information. Farmers Training Centres have successfully carried out training programs for the farming population, and these centres were instrumental in the skill development of the farmers. The initial traditional communication process of the training centres was predominantly formal but later equipped with the innovative possibilities of social media and other digital technologies.

Prospects of Social Media

In recent times, behold the unparalleled upsurge in the utilisation of social media. Farmers around the globe are leveraging the possibilities of social media channels like Facebook, Twitter, YouTube and WhatsApp, which strengthens collaborative communication. To bridge the geographical and communication gaps in a highly literate state like Kerala, the potentiality of social media should be addressed in an in-depth and practical manner. To cater to the changing information needs of the farming population, the farmer's training centre needs to incorporate more dynamic and interactive mediums of communication along with traditional mediums of communication. Adopting and implementing social media as a communication tool is a global phenomenon. Still, the effective integration of social media with the farmer's training centres is an area that needs to be explored. The effective integration of social media in farmers' training centres has the potential to revolutionise the process of agricultural information dissemination.

According to the research by Takahashi et al. (2019), to increase yield productivity and to attain the significant factor of food security, there must be continued efforts to incorporate new technological advancement integrated

with better communication strategies. By assessing the considerable complexities of incorporating social media, the research focuses on discovering the pivotal impact and implications of social media communication's intersection with traditional methods of communication. The study aims to provide valuable insights into the practical effect of sustainable development in the agriculture sector.

Knowledge sharing through ICT

Lathiya et al. (2015). The essentiality of timely information is significant as agriculture is the primary economic foundation of India, a developing nation. Improvisation in information and communication technology is crucial and has influenced stakeholders' information needs. Morris (2017) points out the potential of social media in assisting agriculture-based enterprises and mentions the barriers to social media adoption and the role of social media in formulating new avenues. Stanley (2013) The rapid increase in smartphones worldwide has paved the way for the buildout of social media as a significant form of communication.

(Saravanan. R) states that modern new media tools, Information and communication tools and social media have the most significant prospects for improving agriculture extension and the effective development of information needs. As the number of mobile phone users is increasing, integrating social media and mobile phones is an elementary innovative step to educate the farming/agricultural population with the aim of modern developments in the agriculture sector.

Singh (2020) points out that the lack of awareness about the existing technologies and the lack of skill to handle technologies are the two significant constraints when it comes to the effective use of social media by the extension and advisory services, and have provided a profound understanding regarding the practical usage of social media in the developed countries and the most modern developments regarding the successful extension systems with the aid of social media.

Social Media in Agricultural Communication

The significant rise in the pitfalls of utilising social media in developing countries like India comes with the rural population's infrastructural issues. (Agriculture and social media,n.d.). Before the advent of social media, the information dissemination and exchange of the agricultural sector was primarily governed by traditional and print media. Technological development paved the way for the progress of social media, which holds the growing potential to connect with millions worldwide. Devesh (2018) In different parts of India, Facebook, WhatsApp and YouTube are widely utilised for sharing farm-based information. The agriculture sector only widely uses social media's significant possibilities and potentialities, so its efficacy should be explored in detail. Suchiradipta and Raj's (2018) study examined the factors that affect social media usage in professional communication and pointed out that Facebook, YouTube, and WhatsApp, because of their more accessible user interface, are the most preferred platforms.

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Jackson et al. (2009) Further, social media provides significant opportunities for co-creating and co-learning among the farmer population in the country. Raj (2020) Timely information is crucial for enhancing improvisations in the agriculture sector. The farmers from the state of Karnataka highly utilise social media like WhatsApp to receive information related to agriculture, including livestock management practices. Meena et al. (2022) The progressive farming population has utilised the possibilities of social media as a communication tool to communicate with scientists and extension professionals by sharing and receiving farm-based and agri-based information. Social media networks have a positive effect on the lives of rural people. Social media are electronic communication tools that allow people to connect, produce, share, retrieve, and exchange information and ideas in any format that can be discussed, archived, and accessible by virtual groups and networks. The most crucial information the farmers need, as Madhavan (2017) reflects, is information on Government schemes (loans & subsidies) and market information. It stated that management of agri information holds a significant role in improving agricultural productivity, which will aid in looking over the problem of food insecurity and ensuring food security.

Despite the increase in the utilisation of the potentiality of social media, there is a remarkable research gap in discerning the significant setbacks and prospects connected with its assimilation in the Farmer's Training Centres in Kerala. The prevailing literature disregards the convolute socio-economic factors influencing the sustained engagement and acceptance of agricultural communication and information dissemination. A comprehensive analysis of social media integration by Farmer's Training Centres in Kerala is paramount for optimising its effectiveness for agricultural training. The research focuses on the following objectives for evaluating social media integration.

- To evaluate social media integration into the training activities of FTCs in Kerala.
- To find out the specific social media platforms employed for information dissemination.
- To propose recommendations to enhance the communication effectiveness of social media.

Research Questions

- What are the significant challenges and opportunities that arise from social media integration by FTCs for training purposes?
- Which social media platforms are utilised by FTCs for agriculture-based information dissemination?
- What strategies can be recommended to improve social media integration?
- Are there any evident variations in the social media integration level among Kerala's farmers' training centres?

Materials and Methods

The study incorporates qualitative approaches to analyse the prevalent obstacles and potentialities of social media integration by Farmer's Training Centres (FTC) in Kerala. Document analysis and in-depth interviews were carried out to facilitate an understanding of the practical implications of social media integration for agricultural communication and the enhancement of collaborative communication. The study period (2020-2021) was purposively chosen as the Farmers Training Centres in Kerala extensively incorporated social media only during the COVID phase in the state.

Results and Discussion

This research section depicts the data obtained from qualitative document analysis and in-depth interviews conducted among Farmers' Training Centre officials in Kerala. The in-depth interview was conducted to learn about the significant opportunities and social media of social media integration of FTCs across Kerala. The findings of the in-depth interview aided in identifying the significant challenges associated with its integration for the training activities of Farmer's Training Centres in Kerala. The Deputy Directors of the FTC emphasised the growing potentiality of social media platforms in facilitating the dissemination of timely information on the latest techniques and practical farm-based information. They further explained the various platforms the farming community in Kerala widely utilised for personnel and professional communication and clarified that the dissemination of functional training is most effective in in-person communication.

During the COVID phase, when the practicality of in-person training was meagre, social media came to the rescue and made online training an "attainable possibility" to an extent. In addition, the experts drew attention to the issues of digital illiteracy, connectivity and practical adoption of social media and stated the necessity of sharing the content in regional languages. Furthermore, the training experts should be able to meet the preferences and diverse needs of the stakeholders, and they should understand the necessity of establishing a two-way mode of communication where the farmers should be able to communicate with the online trainers. Collectively, the in-depth interview provided esteemed observations on the substantial issues and possibilities associated with social media integration and the integral component of the innovative transformation of the agriculture sector in Kerala.

Document Analysis

The qualitative data collection method of document analysis was used to analyse the training materials, reports, and social media handles (Facebook) of two FTCs in Kerala to investigate social media integration for agricultural communication and training purposes. Selection of online sessions was carried out by classifying them based on the following subject categories:

- Crop
- Soil
- Climate and Weather
- Technology (Innovation, HI-Tech, Digital Tools, IoT, Apps)
- Land & Soil Conservation
- Disaster Management
- Sustainable Agricultural Practices
- Organic Farming
- Skill Training for Youth
- Agricultural Marketing

Topic	Date	Online Format	Number of online viewers	Interaction via comments
Soil & Plant nutrient management	05.08.2020	FB live	486	Not Available
Innovative Culture of Pepper	06.08.2020	FB live	190	Not Available
Income Generation through vegetative plant propagation	11.08.2020	FB live	430	Not Available
Kissan Credit card	12.08.2020	FB live	430	Not Available

Scope & Importance of Apiculture	07.09.2020	FB live	432	Not Available
Apiculture	15.09.2020	FB live	438	Not Available
Farm Machinery	23.09.2020	FB live	435	Not Available
Precision Farming	25.09.2020	FB live	403	Not Available
Agricultural Marketing	06.10.2020	FB live	194	Not Available
Introduction to Aquaculture	08.10.2020	FB live	354	Not Available
Importance of soil health management	16.10.2020	FB live	8026	Not Available
Aquaponics	09.11.2020	FB live	315	Not Available
Innovative ideas for gardening	01.03.2021	FB live	285	Not Available
Integrated farming system/ Subiksha keralam	15.01.2021	FB live	781	Not Available
AIMS portal	23.01.2021	FB live	547	Not Available

Table:1 Document analysis of FTC Pandalam (list of online sessions carried out during 2020-21)

Topic	Date	Format	Number of views	Interaction via comments & Shares
Irrigation, water, soil conservation	13.08.2020	FB Live	543	1 share
Organic Farming	21.08.2020	FB Live	152	5 shares
Organic cultivation	09.09.2020	FB Live	284	5 comments, 8 shares
e-Nam, Marketing Platform	07.10.2020	FB Live	208	7 comments, 3 shares
Agri Marketing	28.10.2020	FB Live	204	5 comments, 2 shares
Entrepreneurship	09.11.2020	FB Live	354	4 comments, 3 shares
Organic Farming, Aquaponics	29.12.2020	FB Live	901	24 comments, 8 shares
Organic Farming	31.12.2020	FB Live	568	4 comments, 2 shares
Smart farming	18.01.2021	FB Live	613	19 comments, 3 shares
Soil Health	13.08.2021	FB Live	271	6 comments, 7 shares

Table:2 Document analysis of FTC Kozhikode (list of online sessions carried out during 2020-21)**Findings**

- The most prevalent social media utilised for training and communication was Facebook.
- The total number of training sessions carried out with the aid of Facebook by the Farmers Training Centre, Pandalam, in the year 2020-2021 was 79. The engagement details regarding 15 sessions (classification based on selected categories) were extracted.
- 14,013 online participants attended the 15 sessions, and the data regarding the user engagement of the sessions was unavailable.
- The total number of training sessions carried out with the aid of Facebook by the Farmers Training Centre, Kozhikode, in the year 2020-2021 was 80. The engagement details regarding 10 sessions (classification done based on selected categories) were extracted.
- 4,099 participants attended the 10 sessions, with 74 comments and 42 shares.

- The integration of Facebook by the Farmer's Training Centres aided the accessibility of training programs and enabled communication during unattainable in-person modes of communication.
- Along with the broad opportunities social media provides, the study identified specific challenges associated with integrating social media and its effective utilisation by the stakeholders. The constraints include digital illiteracy, infrastructural issues, language barriers and time constraints.

Conclusion

The effective utilisation of social media for Farmers' Training Centres in Kerala is an exceptional opportunity for agricultural information dissemination and the delivery of innovative techniques and modern methods prevailing in the agriculture sector. The comprehensive analysis of social media integration by Farmer's Training Centres indicates that Facebook can facilitate information sharing and training in contexts where in-person communication is technically impossible. Furthermore, the issues of connectivity, time constraints, digital literacy, and infrastructural constraints need to be more focussed to validate the productive implementation of Farmers' Training Centres across Kerala. Overall, the observations emphasise the vitality of adopting technological advancements to uplift Kerala's agricultural community.

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