Social media utilisation for Agri information dissemination: An analysis of Agri Based Facebook pages of central government agencies

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ABSTRACT
Social media is viewed as the greatest ICT(Information and Communication Technology) tool that can be used for knowledge sharing. The emergence of social media paved the way for more collaborative and interactive methods of communication, which in turn restructured the way citizens communicate with the government and vice versa. As social media provides timely information, it helps to keep the farmer community updated about ongoing developments, and Government agencies can utilise social media to facilitate adequate information dissemination.
The study depicts how the Ministry of Agriculture and Farmer's Welfare uses social media as an effective information dissemination tool. The study further analyses how social media can be utilised as a support system for the traditional communication carried out by the Ministry of Agriculture and Farmer's Welfare. The research uses quantitative content analysis of the Facebook pages of the Ministry of Agriculture and Farmers' Welfare.

Keywords: Social media, Agri government agencies, Agri communication, Information Dissemination

INTRODUCTION

India, a well-known nation for its pioneering outlook and proficient literacy levels holds an apex position in harnessing technological progress for agricultural advancement. This article aims to assess the multifaceted impact of digital technologies on building a collaborative environment where sustainable development and information dissemination hold ascendancy.
The significant element of social interaction has been a pivotal segment when it comes to finding new associations and promotions of business. Millions of people across the globe have been using social media to purchase products of their preferences. As per the study by Cristina Castronovo &Lri Huang, Social media has been identified as an alternative tool for marketing which will pave the way for achieving the marketing goals.
The effective introduction and adaptation of new digital technologies in the agriculture sector can be integrated to ensure productivity and sustainability in the agriculture sector. Precision Farming, the Internet of Things, Smart Agriculture, Big data and Artificial Intelligence, technologies enable farmers to get equipped with the most modern solutions for the major constraints the agriculture sector faces. Utilisation of AI-driven technologies can provide recommendations which are personalised in nature by promoting the best practices and by providing enhanced decision-making to the farmers. Smart agriculture is another poignant way in which productivity can be enhanced and labour costs can be reduced, which also fosters remote monitoring and automation of farming operations.
The major constraints of digital literacy and the lack of dependable internet infrastructure in the rural areas had significantly affected the successful dissemination of training sessions for the farmers. The proper identification of social media as an agri-marketing tool will be a thoughtful step as the winding up of the Kerala government's E-Krishi project (2016-2010) a few years ago, points out the urgent need for a digital platform for Kerala farmers to list out their agricultural produce for a profitable trade by connecting buyers from different parts of the world.

LITERATURE REVIEW

(Varshney et al., 2021) The study analysed the efforts of KVKs in disseminating agri information. The study states that millions of farmers from India depend on Krishi Vigyan Kendras (KVK) as the primary source of information, and the advisory services related to agriculture aid in the adoption of technologies and facilitate the dissemination of information to farmers in most developing countries. Borthakur & Singh (2012) The agricultural research system of present-day India helps in the progression and development of research and educational activities related to agriculture and has significantly contributed to the growth and development of the agriculture sector.

The agricultural marketing sector in India has achieved tremendous change with the establishment of eNAM (National Agriculture Market) platform. The eNAM platform serves as an integrated platform for the online marketing of agricultural products. The major significance of the eNAM platform lies in its ability to provide the most relevant information related to price and enables the farmers to engage in auctions which occur online. This integrated initiative has reduced the most difficult constraints faced by farmers and has improved their income levels. Social media platforms have the most significant ability of creating and engaging the farmers to share their knowledge and to seek advice. The creation of a collaborative environment for the farmers is also aided by the social media platforms by associating them with experts, agricultural officers to facilitate the information flow.

To make marketing more progressive, it is important to promote an environment where the process of two-way communication is possible and effective. Social media platforms like Facebook, Instagram, WhatsApp, Youtube and Linkedin can be advantageously used in agriculture extension and marketing as their potential to engage with clients which helps in resolving the issue of lack of connectedness in the developing rural areas. Leveraging social media to link it to the agriculture sector or extension activities will aid in restructuring their preferences for offline marketing or a system of structure with the combination of online and offline agri-marketing systems. Institutionalising social media can be an adventurous step in the beginning as the rural population lacks the elements of skilled human resources and the influence of the internet and IT issues.

Social media and the most innovative digital technologies have the most efficient ability of transforming the agriculture sector in order to attain development economically and the promotion of sustainable practices. To strengthen the agricultural systems, efforts are needed to improve the market and information access, which can be aided in empowering the farmer community in the state. With the ongoing developments in the agricultural sector with the integration of digital and social media technologies the effective achievement of sustainable and adaptable agricultural development can be done effectively.

METHODOLOGY

The study uses the method of quantitative content analysis to assess the social media utilisation of government agriculture agencies. The study is purely based on primary data. Through Purposive sampling, the researcher has identified three Facebook pages.

1. Ministry of Agriculture and Farmer's Welfare
2. Ministry of Fisheries, Animal Husbandry and Dairying

Objectives

- To examine the importance of social media as a communication tool for information dissemination.
- To find out the social media integration by the Ministry of Agriculture and Farmer's Welfare.
- To examine the frequency of agriculture-based posts on social media pages of the Ministry of Agriculture and Farmer's Welfare

Research Questions

- How does the Ministry of Agriculture and Farmer's Welfare use social media as an effective communication tool?
- What is the crucial agriculture-based information disseminated through social media platforms?
- How can social media be utilised as a support system for traditional communication?
- Which are the primary languages in which information is shared through the Ministry of Agriculture and Farmer's Welfare social media pages?

The period of the study

In India, December 3rd is celebrated as "Agricultural Education Day" by the Indian Council of Agricultural Research every year. The period of the study the researcher has chosen is 31 days. Primary data is

collected through the respective Facebook pages from November 18th to December 18th 2022, to analyse how the Agri government agencies communicate before and after the Agricultural Education Day.
By analysing the different content of the Facebook pages of the Ministry of Agriculture and Farmer's Welfare departments, the researcher could identify whether Facebook is used to inform and educate farmers about different schemes and programs. The Uses and Gratifications theory can examine how different communication and engagement strategies are best suited to meet the demands and requirements of the different social media users to gather agricultural information. The theory of Uses and Gratifications provides an insightful framework to better analyse the underlying factors of social media utilisation by the Department of the Ministry of Agriculture and Farmer's Welfare, which can be used to optimise and initiate better user engagement.

Content analysis of three Facebook pages of the Ministry of Agriculture and Farmer's Welfare was carried out by analysing the following parameters:

Table 1: The table shows the different parameters used to analyse the content and user engagement of the identified social media pages(Facebook)

1)	Date of the post
2)	Total Followers
3)	Total Post
4)	User Engagement
5)	Type of Content
6)	Language
7)	Advertisement/Promotion
8)	Message from Officials
9)	Special day
10)	Announcements
11)	Educational
12)	Awards
13)	Interactions/Collaborations/Visits/Demonstration/Activities
14)	Events/Webinar/Conference/Training/Discussions
15)	Parameters
16)	Cross-Posting
17)	Re-post

Data Interpretation

- **Department of Animal Husbandry and Dairying**

The data is obtained from 31 days of content analysis on the Department of Animal Husbandry and Fisheries Facebook page. The researcher used **figure:1** to analyse and obtain data regarding the frequency of posts, user engagement, type of content, language and other significant parameters in which the information is shared. The total number of posts shared between 18th November to 18th December was 274, with 142 comments, 3246 likes, 29376 video views and 435 shares. Of the total posts, 60 contained images, 33 contained videos, and 26 contained information regarding events/webinars/discussions/training. Most of the posts were educational.
Furthermore, the highest number of posts(37) were shared on 26.11.2022, a special day(National Milk Day). The languages used for communication include Hindi, English and regional languages. The majority of the posts were in English (188 posts).

- **Ministry of Agriculture and Farmer's Welfare**

The data is obtained from 31 days of content analysis on the Facebook pages of the Ministry of Agriculture and Framer's Welfare. The researcher used the **figure:1** to analyse and obtain data regarding the frequency of posts, user engagement, type of content, language and other significant parameters in which the information is shared. The total number of posts shared between 18th November and 18th December is 229, with 629 comments, 5722 likes and 657 shares. Of the 229 posts, 98 contained images, and 48 contained videos. The day with the maximum number of posts is 6.12.2022 (International Year of Millets). The total number of educational posts over the 31 days was 148. Information regarding Digital Innovation/technological transformation was included in 26 posts. Twenty-eight posts contained educational info regarding schemes and policies.

Findings and Results

- Most of the posts on the Facebook pages of the Ministry of Agriculture are educational and primary emphasis was given to crop info, Schemes and policies and Digital Innovation/Technological Transformation.
- Among the three, the official page of The Ministry of Agriculture and Farmer's Welfare has the highest number of posts and user engagement.
- Across the three official pages, the most petite information regarding climate info, App info and Price is shared.
- The result indicates that people do engage the most on the official pages of the Ministry of Agriculture and Farmer's Welfare.
- Higher engagement is seen in posts focussed on scheme and policy information.
- No posts were shared about climate and soil information.

CONCLUSION AND DISCUSSION

This study analysed the utilisation of social media, specifically Facebook, by central government agencies including the Department of Animal Husbandry and Dairying and Ministry of Agriculture and Farmer's Welfare for agricultural information dissemination. Findings indicate that Facebook pages managed by these agricultural agencies are an effective tool for reaching a wide audience, delivering timely updates, weather alerts, market trends, and government schemes transcending the geographical barriers. The interactive nature of Facebook allows farmers to engage directly with agricultural experts, ask questions, and access region-specific advice. However, the analysis also revealed areas for improvement, such as the need for more localised content, increased frequency of posts, and enhanced visual aids like infographics and videos to improve engagement.

Limitations

Due to time constraints, the researcher selected a small sample size for the study. The analysis of Facebook pages has been done only for 31 days. In order to attain a profound understanding of the content shared on the Facebook pages of the Agriculture Ministry, it needs large sample sizes.

REFERENCE

[1] Chowdhury, A., & Odame, H. H. (2014). Social media for enhancing innovation in agri-food and rural development: Current dynamics in Ontario, Canada. Journal of Rural and Community Development, 8(2). https://journals.brandonu.ca/jrcd/article/download/1007/232

[2] Han, H., Xiong, J., & Zhao, K. (2021). Digital inclusion in social media marketing adoption: the role of product suitability in the agriculture sector. Information Systems and e-Business Management, 20(4), 657–683. https://doi.org/10.1007/s10257-021-00522-7

[3] Ifejika, P. I., Asadu, A., Enibe, D. O., Ifejika, L. I., & Sule, A. M. (2019). Analysis of social media mainstreaming in E-extension by agricultural development programmes in North Central Zone, Nigeria. Journal of Agricultural Extension and Rural Development, 11(4), 78–84. https://doi.org/10.5897/jaerd2018.0999

[4] Irungu, K. R. G., Mbugua, D., & Muia, J. (2015). Information and Communication Technologies (ICTs) Attract Youth into Profitable Agriculture in Kenya. East African Agricultural and Forestry Journal, 81(1), 24–33. https://doi.org/10.1080/00128325.2015.1040645

[5] James, D. J., Shivamurthy, M., Ganesamoorthi, S., & Lakshminarayan, M. (2020). Perception of Krishi Vigyan Kendra Scientists Regarding Social media for Agricultural Development. International Journal of Current Microbiology and Applied Sciences, 9, 2304–2312. https://doi.org/10.20546/ijcmas.2020.906.282

[6] Kukreja, A., & Chakrabarti, B. (2013). Agricultural Knowledge Management and dissemination: Initiatives by Information and Communication Technology. Journal of Global Communication, 6(1), 51. https://doi.org/10.5958/j.0976-2442.6.1.006

[7] Madhavan, S. M. S. (2017). Agriculture Information Needs of Farmers, An Overview. International Journal of Agricultural Science and Research, 7(6), 209–216. https://doi.org/10.24247/ijasrdec201728

[8] Ngai, E. W., Moon, K. K., Lam, S., Chin, E. S. K., & Tao, S. S. (2015). Social media models, technologies, and applications. Industrial Management & Data Systems, 115(5), 769–802. https://doi.org/10.1108/imds-03-2015-0075

[9] Pandey, N. (2017). Role Of Information And Communication Technology In Agriculture Development: A Study Of Nabarangpur District. Scholedge International Journal of Business Policy & Governance ISSN 2394-3351, 4(4), 24. https://doi.org/10.19085/journal.sijbpg040401

[10] Paudel, R. (2018). Social media in agricultural extension. SSRN Electronic Journal. https://autopapers.ssrn.com/sol3/papers.cfm?abstract_id=3662942
[11] Rao, N. (2006). A framework for implementing information and communication technologies in agricultural development in India. Technological Forecasting and Social Change, 74(4), 491–518. https://doi.org/10.1016/j.techfore.2006.02.002
[12] Salemink, K., Strijker, D., & Bosworth, G. (2015). Rural development in the digital age: A systematic literature review on unequal ICT availability, adoption, and use in rural areas. Journal of Rural Studies, 54, 360–371. https://doi.org/10.1016/j.jrurstud.2015.09.001
[13] Siebrecht, N. (2020). Sustainable Agriculture and its Implementation GAP—Overcoming Obstacles to Implementation. Sustainability, 12(9), 3853. https://doi.org/10.3390/su12093853
[14] Suchiradipta, B., & Raj, S. (2018). The online culture of agriculture: exploring social media readiness of agricultural professionals. CSI Transactions on ICT, 6(3–4), 289–299. https://doi.org/10.1007/s40012-018-0205-0