RESEARCH ARTICLE Bhartiya Krishi Anusandhan Patrika

The Utilisation of Social Media for Accessing Farming Information by Progressive Farmers

Deepa Singh[1], Bhoopendra Kumar Verma[2]

10.18805/BKAP642

ABSTRACT

Background: It is more prominent in developing and under-developing nations where large number of populations resides in a rural area with agriculture as their main source of livelihood. Agricultural research, education and extension are critical components to increase productivity and fulfil the demands of an expanding population. Under India's current extension delivery system, knowledge or information is vital for improving productivity. Digital advancement and social media have gained importance as technical leap leading to various software's and applications making life easier, mankind can access various civic services, has led to two-way communication making system more accountable, sensible, responsible, a tool in curbing corruption. People, particularly progressive farmers, are using developing social media like WhatsApp, YouTube, Instagram as various platform of social media. India is an agrarian country and social media is helping in imparting knowledge and information to our farmers about recent technological developments such as hybrid seeds, irrigation methods, soil testing in farming.

Methods: Narrative textual case study technique was used (NTCS). We used social media to gather information. Social media is making farmers and other people aware of sustainable use of resources.

Result: Researchers have seen social media as more beneficial in obtaining agriculture-related information and putting digital knowledge into practice than other sources of information.

Key words: ICT, Progressive farmer, Social media.

INTRODUCTION

Social media is a modern kind of digital communication that consists of various growing tools for individuals to talk, engage and share information. These digital tools are Facebook, Twitter, WhatsApp and Research Gate. According to Merriam-Webster (2015), social media are types of electronic communication in which users may build online communities to share information, ideas, personal messages and other content. According to Terry (2009) and Kaplan and Haenlein (2010), social media are digital tools that promote the sharing of user-generated content through continuous engagement. According to Suchiradipta and Saravanan (2016), social media are web-based electronic communication tools that enable users to interact, create, share, retrieve and exchange information and ideas in any form (Text, images, video and so on) that can be discussed, archived and used by anyone in virtual communities and networks.

It is no longer news that social media generates widespread acceptance in society, regardless of age or area, but especially among youngsters, who are easily swayed by enticing trends. In a similar vein, Adler and Kwon (2002); Bargh (2004); Banmeke and Oose (2012) all showed that social media technologies are gaining traction in Africa, particularly among young people. Africa, on the other hand, looks to be less technologically advanced. Social media has historically been the most swiftly adopted media technology. Kuria (2014) asserts that social media has revolutionised communication to the point that it has overtaken established gatekeepers in traditional media, such as editors and other agenda-setters.

[1]IIS University, Jaipur-302 020, Rajasthan, India.
[2]M.S.J. Government College, Maharaja Surajmal Brij University, Bharatpur-321 001, Rajasthan, India.

Corresponding Author: Deepa Singh, IIS University, Jaipur-302 020, Rajasthan, India. Email: deepapuspensingh@gmail.com

How to cite this article: Singh, D. and Verma, B.K. (2023). The Utilisation of Social Media for Accessing Farming Information by Progressive Farmers. Bhartiya Krishi Anusandhan Patrika. DOI: 10.18805/BKAP642.

Submitted: 23-04-2023 **Accepted:** 09-10-2023 **Online:** 17-10-2023

Nonetheless, social media has not supplanted traditional media in agenda setting but rather complements it. Traditional media has historically been the major medium through which corporations communicate with their target consumers and it has provided a great deal of control that social media does not. Because individuals increasingly control the creation and transmission of information rather than organisations or traditional news sources, social media acts as an evolutionary stimulant. Given the geographic and feedback limitations of traditional or old media, Kuria (2014) emphasised how social media has enabled the crossing of boundaries, allowing individuals from diverse geographical regions locally and globally to discuss ideas on a variety of platforms.

However, it does have certain limitations. For example, social media has redefined communication, interaction and culture and spawned a variety of social movements and revolutions. These include the 2009-2010 Arab Middle Eastern revolutions. Additionally, information may

infrequently be erroneous due to its high degree of uncontrollability. According to Haley (2013), the dissemination of inaccurate information and rumours can be attributed to a vast unregulated system of social media platforms. Additionally, it can eliminate a farmer, extension worker, or another field expert rather than providing critical physical interactions necessary for effective networking and long-term growth.

Agriculture stakeholders are increasingly reliant on social media. According to Sokoya *et al.* (2012), agricultural researchers, professionals and other agricultural stakeholders increasingly utilise social media. Social media has ensured that information is promptly sent and replied to between the sender and recipient. A cost-effective way to ensure the profitability and longevity of a lucrative agricultural extension subsector. Mukhtar *et al.* (2015) assert that social media has established an unmatched platform for information transmission and interactive communication in the modern-day. Social media penetration is growing quicker than expected, especially when paired with the rate of technological advancements that continue to bring the world to everyone's fingertips and make information accessible without the inconveniences of travel and delays. Stanley (2013) noted that it is mind-boggling to consider the rapid expansion of the internet and social media over the last two decades. As a result, because extension works with an audience (Particularly progressive farmers), social media has an incredible opportunity to effect positive social change.

Social media's growth and the rate at which it has permeated public space are indisputably important. This is because if the whole World Wide Web arrived in 1991 and social media arrived two decades later (Particularly in 1997), with such tremendous reach and impact, agricultural extension service delivery should not fall behind in integrating and effectively utilising social media. Given that no one can predict what will happen in the next two decades or even a few seconds, how ancient will our existing communication technologies be and how difficult would it be to integrate such media into agricultural extension service delivery if the void caused by today's failure to integrate social media is filled. All of this and much more, demonstrates the critical nature of agricultural social media use. Additionally, the expansion was built on the premise of promoting transformation *via* communication and service delivery.

MATERIALS AND METHODS

This article relied solely on secondary data, necessitating a review. As a result, the narrative textual case study technique was used (NTCS). NTCS is a method for doing social science research that makes considerable use of information, data and academic resources that are made available via information and communication technology facilities such as an intranet, the internet, the world wide web, online databases and e-libraries (Adli and Leijon, 2007; Barau and Afrad, 2017). The technique also incorporates pertinent public opinion and other classic social research methodologies. A large variety of books, journals, reports and publications were studied throughout the preparation process. To gather information, several websites were visited.

RESULTS AND DISCUSSION

Social media growth

Social media has altered the way we interact, read, search, think, discuss, watch, listen and on occasion, spark a political or social revolution. Indians have taken to social media like a duck to water. Indians spend around 2.25 hours every day on social media. Due to widespread internet access, India's number of social media users will reach 467 million by 2022. Internet users in India have risen to 624 million, accounting for around 45 per cent of the entire population. Social networking has become one of India's most important aspects of regular internet usage.

Falling smartphone prices have fuelled a tremendous growth in mobile smartphone usage across India. Another element driving a large-scale increase in social media use is the simple availability of super-fast internet at extremely low rates. Mobile Internet users have risen to 572 million, with 444 million accessing social media *via* mobile devices (Table 1).

The rising use of YouTube and WhatsApp is attributable to the greater availability of fast internet access (Table 2). One of the reasons it has surpassed all competitors and built a distinct niche is that they continue to provide unique user experiences to its clients.

The average daily time spent on the internet is 6 hours 36 minutes, with social media accounting for 2 hours 25 minutes of that time.

By 2021, YouTube will be India's most popular social media network, accounting for 85.80 per cent of social media users. After only the United States, India is YouTube's second-largest market in terms of both views and subscribers. Numerous YouTubers have gained success in addition to YouTube.

With 75.70 per cent of users having profiles, Facebook is the second most popular website in India. Facebook is the most popular social media platform among businesses, the political elite and ordinary people in India. It will be a

Table 1: Active social media users December 28, 2021 (www.statista.com).

India's total population	1.39 billion
Active social media users	0.448 billion
Internet users	0.624 billion
Social media user on cell phone	0.444 billion
Mobile internet users in India	0.572 billion

Table 2: Annual growth rate (www.statista.com).

Parameter	Percentage
Annual growth in active social media users.	31.2%
Annual growth of internet users	8.2%

powerful force for many years to come. Numerous large businesses have used Facebook to communicate with their customers.

Instagram is a formidable opponent, accounting for 70.60 per cent of social media users in India (Table 3). Teens, in particular, account for a large section of Instagram's user population. Facebook, the parent company of Instagram, paid $1 billion for the acquisition. It has developed into a cash stream for producers and an excellent business sales channel.

Social media platforms used in agricultural and their respective pages

Utilising various social media platforms to perform agricultural extension services enables speedier delivery, larger coverage, stakeholder engagement and knowledge exchange. While social media venues such as Facebook, YouTube, blogs, wikis and podcasts enable extensionists to reach a large audience, the principles of message content fit and audience criteria must be followed for successful delivery (Kinsley, 2010; Gharis *et al*., 2014).

As of January 8, 2021, a YouTube search for agricultural extension service delivery yielded results with thousands of views. Talk about Twitter and Facebook, which are less popular than the former. The diversity and numerical expansion of various social media platforms daily reflects interest, demand for useful information and the need to expand further efforts to bring knowledge closer to end-users, extensionists, researchers and other stakeholders. According to Valsamidis *et al.* (2013), social media gives research and extension organisations a chance to comprehend Progressive farmers' issues, difficulties and opinions and evaluate their attitudes regarding agricultural topics. Additional social media platforms are centred on building a peer network of researchers, academics and other relevant players in agricultural extension service delivery. Academia.edu, LinkedIn and ResearchGate are a few examples. According to Suchiradipta and Saravanan (2016), LinkedIn, Academia.edu and ResearchGate have more users from researchers, academics and other professions to establish a peer network.

Table 4 show the various social media channels and pages used by extension service providers to engage with members and non-members. In reality, social media allows for audience feedback, which improves the effectiveness of extension service delivery.

Challenges in agricultural social media use

Social media can be used to deliver agricultural extension services. Nonetheless, its use and integration with the extension system are problematic. Sulaiman and Davis (2012) state that extension and advisory services face new and complicated difficulties that require new capacities to address effectively. Among these problems is integrating and utilising social media effectively. Several studies, including (Kipkurgat *et al.,* 2016; Kuria, 2014). Suchiradipta and Saravanan (2016) have highlighted the challenges of using social media for agricultural extension service delivery. So, here is my assessment of world challenges.

Access relative cost

This is the expense versus outcome. Many farmers are too poor to pay for data access to social media. African and Asian farmers use this method (mostly developing countries). Also, internet cafés have hefty internet costs. These eventually challenge the use of social media in agricultural extension because images and videos take up far more data than text. Andres and Woodard (2013) claim that high internet costs limit their utilisation.

Lack of infrastructure

Rural areas in underdeveloped countries are especially affected by poor energy and internet access infrastructures. According to the ITU, Internet penetration in less developed nations was only 9.6% in 2015.

Illiteracy

Agricultural extension service stakeholders, particularly farmers and extension staff, lack educational and technical literacy. Thomas and Laseinde (2015) found that extension workers need basic social media training.

Lack of quality control

Extension services cannot compromise the free nature of social media comments and content creation. Worse still is today's cybercrime due to sensitive data handling. The effectiveness and reputation of information shared, especially by companies, must be controlled. According to Baena (2015), a full-time moderator must ensure that the material supplied is reliable, current and aligned with the organisation's goals. Securing social media connections, privacy concerns and opposing impressions requires professional human resources. A lack of capacity in adopting social media as a delivery method for extension service programs is cited as a hindrance by Fuess (2011).

Most social media users on agriculture-related pages and platforms are passive, with a few engaged. This limited contact limits knowledge sharing and information sharing to a worldwide audience.

Non-institutionalisation

Social media is still lacking institutionalisation at many levels. Many institutions, governmental or private, do not value it. But the importance of social media in agricultural extension cannot be overstated. According to Olakulen (2015),

Table 3: Most used social media platforms in India 2021 (www.statista.com).

Platform	Percentage
YouTube	85.80%
Facebook	75.70%
Instagram	70.60%
Twitter	50.60%
LinkedIn	37.70%

Table 4: Social media platforms pages.

Name of group/Community/Pages	Target users	Region
Farming First (https://www.youtube.com/user/Farming First/)	Policymakers, researchers, agricultural enthusiasts and practitioners	Global
CGIAR research program on climate change, agriculture and food security (CCAFS) (https://www.youtube.com/user/CCAFS)	Researchers, farmers, policymakers	Global
IFADTV (https://www.youtube.com/user/IFADTV/)	Policy makers, farmers, extensionists	Global
MEAS (https://twitter.com/MEAS_extension)	Development practitioners	Global
GFRAS (https://twitter.com/infogfras)	Extensionists, development practitioners, researchers, policymakers	Global
The unconventional farmer (Gil carandang and patrick gentry) (http://theunconventionalfarmer.com/flog/)	Farmers, agriculture enthusiasts	Global
e-Agriculture (https://twitter.com/e_agriculture)	Farmers, researchers, development practitioners	Global
INGENAES (https://twitter.com/INGENAES)	Researchers, extensionists, farmers	Global
Global forum for rural advisory services (GFRAS) (https://www.facebook.com/groups/gfras/)	AEAS Professionals and others	Global
Agricultural entrepreneurship (Penn state extension) (http://farmbusiness.blogspot.in/)	Agripreneurs	USA
AgChat (https://twitter.com/agchat)	Farmers, entrepreneurs, farm product consumers	USA, U.K.,
Agriculture Proud (https://twitter.com/AgProud)	Agriculture enthusiasts and fellow farmers	USA
Young Farmers (https://twitter.com/F4YFKenya)	Young farmers	Kenya
USDA (https://twitter.com/USDA)	Farmers, extensionists, development practitioners	USA
eXtension4U (https://twitter.com/eXtension4U)	Farmers, researchers, policy makers of USA related to ARD	USA
Gate to Plate Blog (Michele Payn-Knoper) (http://www.causematters.com/blog/)	Farm product consumers, agriculture enthusiasts, farmers	USA
Farmers Weekly Video (https://www.youtube.com/user/ FarmersWeeklyVideo/)	Farmers, extensionists, agribusinesses	U.K.
Mkulima Young (Young Farmer) (https://www.facebook.com/mkulima.young)	Young farmers	Kenya
National Ecological Producers Association (APNE) (https://www.facebook.com/anpe.peru)	Farmers	Peru
Agricultural Extension in South Asia (AESA) (https://www.facebook.com/groups/428431183848161/)	Agricultural Extension stakeholders	South Asia
Ecoagriculturist (Oluwabunmi Ajilore) (https://ecoagriculturist.wordpress.com/)	Farmers,	Nigeria
AGRF Blog (African Green Revolution Forum) (http://www.agrforum.com/blog/)	Policymakers, private actors, civil society actors, researchers, farmers, agribusinesses	Africa
TNAU Agritech Portal blog (Tamil Nadu Agricultural University) (http://tnauagritechportal.blogspot.in/)	Farmers, agripreneurs, extensionists	India
Livestock Information and Marketing Centre (https://www.facebook.com/ Livestock. Market)	Farmers, scientists, consumers, *etc.*	India
Turmeric Farmers' Association of India (https://www.facebook.com/turmeric.farmers)	Turmeric farmers	India
Vivasayam Karkkalam (Let us learn agriculture) (https://www.facebook.com/groups/madhualan)	Farmers	India
Krishi Vigyan Kendra, Namakkal (https://www.facebook.com/krishi.namakkal)	Subject matter specialists of KVK, farmers	India

extension services would be more successful and efficient if social media were streamlined.

Monitoring and judging the quality and worth of material provided on social media is currently poor for extension service delivery. Friends, followers, mentions, number of visits, likes, conversation index and shared content sharing are provided. Assessing and monitoring are critical in agricultural extension service evaluation and planning.

Due to cultural and societal limits on women, social media integration into agricultural extension service delivery must be gender-sensitive to serve all regardless of advantage. So, designing policy and approaches is difficult. The audience in extension service delivery determines the message and approach employed in agricultural information/ technology transmission. This group included young, aged, men, women, rural and urban targeted social media users. As a result, the openness of social media presents a problem in meeting users' extended demands.

CONCLUSION

The following conclusions and recommendations are based on the primary findings and discussion. Users can engage, create, share, retrieve and exchange information and ideas via social media, discussed, stored and used by virtual communities and networks. The most popular and widely utilised social media channel for agricultural extension is YouTube. Despite positive perceptions of social media in agricultural extension, most stakeholders remain passive participants. Social media for agricultural extension poses new and significant personal, institutional, infrastructure and security issues. Given subsistence farmers' low literacy levels and a lack of institutional support, governments and other service providers must integrate social media effectively into agricultural extension service delivery. This will aid in expanding the use of social media in the delivery of agricultural extension services. Organisations and change agents must invest in human resources to ensure message quality, accuracy and appropriateness. Ascertain gender equality in the provision of services. This increases usage and adoption. Governments and other service providers should invest in infrastructure and internet access to facilitate the effective use of social media for agricultural extension service delivery, particularly by extension workers and farmers. Create a tool/metric for evaluating the effectiveness of agricultural extension services delivered via social media. This technology would significantly improve the delivery of Agri-extension services. Additionally, there is a need for additional study on farmer social media use. These analyse areas that may be streamlined further to fulfil farmers' demands better.

REFERENCES

Adler, P.S. and Kwon, S.W. (2002). Social capital: Prospects for a new concept. Academy of Management Review. 27: 17-40.

Adli, A. and Leijon, S. (2007). Critical review of the usage of narrative-textual case studies in social sciences and the connect to traditional research methods. In 10th Uddevalla Symposium. pp. 14-16.

Andres, D. and Woodard, J. (2013). Social Media Handbook for Agricultural Development Practitioners. USAID and FHI. 360.

Baena, I.R. (2015). Personal Opinion on Social Media in Agricultural Extension and Advisory Services Global Survey on social media for Agricultural Extension and Advisory Services, Global Forum for Rural Advisory Services (GFRAS) Interest Group for ICT (ICT4RAS). GFRAS, Lindau, Switzerland.

Banmeke, O.T. and Oose, M.O. (2012). Assessment of the use of social network tools (SNTs) by agriculture researchers in South West Nigeria. Communications of the IIMA. 12(3): 32-41.

Barau, A.A. and Afrad, M.S.I. (2017). Potentials of rural youth agripreneurship in achieving zero hunger. World Rural Observations. 9(2): 1-11. doi: 10.7537/marswro090217.01.

Bargh, J.A. and Mckenna, K.Y.A. (2004). The internet and social life. Annual Review of Psychology. 55: 573-590.

Fuess, L.C. (2011). An Analysis and Recommendations of the Use of Social Media within the Cooperative Extension System: Opportunities, Risks and Barriers (Honours Thesis). College of Agriculture and Life Sciences, Social Sciences of Cornell University, Ithaca, New York.

Gharis, L.W., Bardon, R.E., Evans, J.L., Hubbard, W.G. and Taylor, E. (2014). Expanding the reach of extension through social media. Journal of Extension. 52(3): 1-11.

Haley, S. (2013). The Value of Social Media for the Rural Industry (Masters thesis). Harper Adams University, Shropshire, United Kingdom. pp. 33.

Kaplan, A. and Haenlein, M. (2010). Users of the World, Unite! The Challenges and Opportunities of Social Media. Business Horizons. 53: 59-68.

Kinsley, J. (2010). Five social media tools for the extension toolbox. Journal of Extension. 48(5): Article number 5TOT7. Available on https://www.joe.org.

Kipkurgat, T., Onyiego, M. and Chemwaina, S. (2016). Impact of social media on agricultural extension in Kenya: A case of kesses district. International Journal of Agricultural Extension and Rural Development Studies. 3(1): 30-36.

Kuria, C.W. (2014). Use of Social Media as a Source of Agricultural Information by Small Holder Farmers: A Case Study of Lower Kabete Kiambu County (M.A. Thesis). University of Nairobi. 4-5.

Merriam-Webster. (2015). Social Media.Retrieved from http:// www.merriam webster.com/social-media.

Muktar, B.G., Mukhtar, U. and Ahungwa, G.T. (2015). Harvesting youth for agro-entrepreneurship: Stimulus role of social media in Nigeria. International Journal of Applied Research and Technology. 4(11): 94-100.

Olakulen, O.J. (2015). Personal Opinion on Social Media in Agricultural Extension and Advisory Services. Global Survey on Social Media for Agricultural Extension and Advisory Services, Global Forum for Rural Advisory Services (GFRAS) Interest Group for ICT (ICT4RAS). GFRAS, Lindau, Switzerland.

Saravanan, R. and Bhattacharjee, S. (2014). Social Media: New Generation Tools for Agricultural Extension? Available on http://www.aesagfras.net/ Resources/file/Saravanan% 20Final%20 blog%2042.pdf. 1.

Sokoya, A.A., Onifade, F.N. and Alabi, A.O. (2012). Establishing Connections and Networking: The role of social media in agricultural research in Nigeria. In World Library and Information Congress: 78th IFLA General Conference and Assembly.

Stanley, S. (2013). Harnessing Social Media in Agriculture. A Report. New Zealand: New Zealand Nuffield Farming Scholarship Trust.

Suchiradipta, B. and Saravanan, R. (2016). Social Media: Shaping the Future of Agricultural Extension and Advisory Services. GFRAS Interest Group on ICT4RAS Discussion Paper, GFRAS: Lindau, Switzerland. 9.

Sulaiman, R.S. and Davis, K. (2012). 'The New Extensionist: Roles, Strategies and Capacities to Strengthen Extension and Advisory Services' Global Forum for Rural Advisory Services, November. Available on https://www.g- fras.org/en/ knowledge/gfras-publications.html.

Terry, M. (2009). Twittering Healthcare: Social Media and Medicine. Telemedicine and E-health. 15: 507-511.

Thomas, K.A. and Laseinde, A.A. (2015). Training needs assessment on the use of social media among extension agents in oyo State Nigeria. Journal of Agricultural Informatics. 6(1): 100-111. Available on Journal.magisz.org. https://doi.org/ 10.17700/jai.2015.6.1.144.

Valsamidis, S., Theodosiou, T., Kazanidis, I. and Nikolaidis, M. (2013). A framework for opinion mining in blogs for agriculture. Procedia Technology. 8: 264-274. https://doi.org/10.1016/ j.protcy.2013.11.0.