

Impact of Social Media on Agricultural Extentsion

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ABSTRACT

Social media are tools meant for digital communication that aids in the interaction among a group of people and acts as information exchange media across the globe. Since ages newspapers, television, and magazines have been the most used source of information in the agriculture sector. But now the power of the 21st century is literally in our hands. Platforms like Facebook, YouTube, and WhatsApp have 2.6 billion, 2 billion, and 1.6 billion active monthly users respectively as of 2020. The present study focuses on laying out the current and future perspectives of social media in the agricultural and extension sector. Facebook is one of the prominent social media applications for pages and profile creation. YouTube videos are an excellent source of dissemination of knowledge using audio-visual aids. WhatsApp is the handy use of social media and mostly preferred for related groups. In some studies, shreds of evidence obtained revealed that many social media platforms are being used in agricultural extension service delivery worldwide with Facebook having the highest popularity (64.7%). Social media is continuously growing and getting the attention of users with the emergence of several smartphones. However, it has not grown widely for agriculture in India because of various challenges prevalent in rural India that are the shortage of infrastructure, limitation in participation, illiteracy in rural zones, non-institutionalization, lack of quality control, etc. Nowadays, social media is gradually being appreciated in agricultural extension service delivery but continuously facing several challenges. Thus, the need of the hour is to put structures in place and efforts to be made by training and other methods by all stakeholders to ensure good use of its benefits in agricultural extension and rural development.

Keywords: Agriculture Extension, Facebook, Social Media, WhatsApp, and YouTube.

INTRODUCTION

The importance of information in every society today cannot be overemphasized. Society needs information on every aspect of life ranging from health, agriculture, commerce, business, education, etc. Information has been one of the important elements that has established and maintained human relations across the globe. Over time, problems among countries of the world have been attributed to a breakdown in communication. Hence, information plays a pivotal role in the modern society, especially in the development process both in agriculture and rural development. This makes it imperative to provide adequate, relevant and up-to-date information in order to transform agricultural production in many

developing countries, Nigeria inclusive [1,2,3]. Agricultural information is no doubt, central to enhancing accelerated agricultural productivity, facilitating poverty alleviation and rural urban-migration among rural youth. In recognition of the significance of information in technology transfer, [4,5] opined that the emergence of information economy as a global phenomenon that organizes production, conscious utilization of information and effective and efficient deployment of information is increasingly becoming the basis for creativity, productivity, and profitability. Therefore, if the target segment of a population have access to available and readily useable information, it will hopefully better their lots. Participation is

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central to agricultural development [6]. The notion of participation in agriculture has been gaining. Agriculture plays an important role in the Indian economy as 56.4% of the total population is involved in agriculture production requires current and relevant information by experts in this field is a major issue for the country. ICT facilities have been very impressed with how broadcast and broadcast these days total. The delivery of agricultural extension services in India has a limited scale, stability, and impact. Only 6.8 percent of farmers average her public extension services [7]. The NSSO, 2014 indicated that 40.6 percent of households received extension assistance, with only 11 percent of services coming from physical government machinery extension agents, agricultural science centers, and agricultural universities. There is a need to fill this gap by exploring other options for alternative agricultural extension service delivery mechanisms. Information and communication technology (ICT) can provide information on agricultural extension with more precision, faster, relevant, and higher quality [8]. These

A Brief About Social Media

Social media refers to the interaction with people in which they create, share, consume, and exchange information and ideas in virtual communities and networks. [16] define social media as "a set of Internet-based applications that build on the conceptual and technological foundations of Web 2.0 and that allow the creation and exchange of user-created content". "Social media are web-based tools of electronic communication that allow users to exchange information individually or in groups, share ideas and opinions, make decisions and create, store, retrieve and exchange information - Allows to provide the facility of providing

Why Social Media

Is social media important for agriculture? Although many outsiders would never think of connecting farmers, dairy farmers, animal keepers with Facebook

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technologies are reviving agricultural expansion and advisory services worldwide [9]. ICT-based tools in agriculture Vary from web portals, Telecenters, mobile telephony, and hybrid projects (ICT with traditional extension elements) [10]. Mass media including the Internet is now the second most important source of useful information for agricultural families in India [11]. Besides, ICT interventions have received encouragement from the Indian Ministry of Agriculture [12]. Recently two mobile apps were launched on crop insurance and agriculture market [13]. Social media is yet another ICT-based tool, once used purely for entertainment, with great potential for knowledge sharing and collaboration in agriculture [14]. These ICT devices are relatively easy to use and gaining popularity in the agricultural sector [15]. Social media has great potential to be used as a tool of communication and networking for the benefit of the farming community. Infection, many of them recognized it and started using it.

(text, images, videos, etc.), by anyone in the virtual world [3]. These are digital networks that use user-created information - opinion, Video, audio, and multimedia are used to share and discuss [6]. [5] defines social media as forms of electronic communication through which user information, ideas, can create online communities to share personal messages and other content. [6] Definition focuses on three core components - content, community, and Web 2.0 - and the conduct of social media as a form of people interaction. And makes comments in content creation, exchange, and viral dual communities and networks.

and Twitter, they both represent a large group of active users on social networking sites. According to some farmers and scientists, social media is an

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indispensable communication tool to educate farmers about their industry. Farmers are provided advanced facilities by different agencies i.e. Customers service providers and information sharing centers [6]. Farmers also prefer to use social media to grow their production. Social media and information communication technology (ICT) shares the production, information and assistances for the certain cause. Two way communication has increased due to increased networking in rural areas, farmers associate with the help of social media over a geographical distance. Social media also provides solutions for different agricultural issues. Social media is mainly used to split data and create knowledge. The most popular social media platforms among farmers are Facebook, YouTube and WhatsApp. [7]. Farmers also share their success and failure stories on social media. It also provides them opportunity to inform about harvesting, post harvesting, endorsing agricultural products, market information, answering problems of farmers if they are from their recognized areas. There is wide difference between social media and old-style media. Social media customers generate their own groups, pages, community and blogs to disseminate facts. In these platforms they also sell, purchase farming goods. It also enables the promotion of farmers' products and of network development [6]".

Agriculture and social media goes hand in hand. Social media is the place of arrangement and agriculture is the matter. Social media offers agriculturalists and rural industries an expression and offers vital interacting prospects for constant two-way communication [5]. Agricultural technology includes crop production, land preparation, management, protection, uses and ways of variety of fertilizers, irrigation, time, pesticide, diseases control, pest control

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measurement, plants production, ways of harvesting, marketing, extension programs etc. Agricultural technology has expert core team which are 1) Communication Experts 2) Agronomists 3) Extensionists 4) Researchers and 5) Scientists. Agricultural production in developing countries sustained to be low and it was mostly supposed that lack of facts tailored to local essentials and deficiency of mechanical information at the farm level were the key features for this low and immobile creation [6]. This condition calls for an operational proficient organization dealing with the spread of the modern agricultural technologies among farmers. Thus, it is seriously required to relate science and telecommunication in the area of cultivation [8] claimed that to contend the international world now, it is necessary for our farmers to have updated knowledge about new farming methods, new agriculture means, more harvests, spores, insecticides, water supervision, promotion of the invention, management plans about cultivation, trade budding of their yields and the data about the linked events like fish farming, agriculture, poultry, dairy, and climate data on native and district stages.

To attain this objective, the expansion of organizations are spreading fresh expertise via various means comprising media [6]. The probability is to increase the ability of agricultural technology linked industries to commercialize technologies, update supervision practices while assuming maintainable practices and also to rise the general acceptance of agricultural technologies by small farmers. Mass media plays a crucial role in distribution of information and in shaping public policy. Theory shows that information provided by mass media reflects its incentives to provide news to different groups in a society and in turn shape these groups' influence on policy making.

Media coverage affects the efficiency with

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which politicians reach different groups with their campaign promises. If a political party makes a spending related promise to a group of voters that receive less news coverage, then only a fraction of these voters who would benefit from the spending become aware of the promise. Therefore, a spending promise to this group will not win many votes for the party. Consequently, this group of voters will also not attract many favorable policies. However, if the party were to make similar promises to a group that attracts substantial media coverage (for example, because they are large audiences or because the groups are more valuable to advertisers), then this will lead to a stronger voter response and policies that are more favorable to this group. David Stromberg refers to this outcome as “mass media-competition-induced political bias.” What does this mean for agricultural policy? The most important stylized fact about agricultural policy is the so-called development paradox, the policy switch from the taxation to the subsidization of agriculture associated with economic development. Several factors drive this pattern. Economic growth is typically associated with a growing urban-rural income gap, inducing farmers who lobby the government to reduce the income gap. They become increasingly successful in their lobbying efforts when a country becomes rich because the number of farmers goes down, which in turn reduces the per-capita on taxpayers or consumers. Agricultural interests, compared to that of consumers and taxpayers, also become more effective in collective action, because the number of farmers declines, agribusinesses develop, and the cost of communication and transportation goes down. Mass media has an impact on the relationship between agricultural policy and economic development. One key prediction of this model is that government transfers to agricultural interests are generally biased towards

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larger groups as a result of media competition. Because the agricultural group (the number of farmers) is relatively larger in poor countries and relatively smaller in richer ones, an important implication of the model, *ceteris paribus*, is that the effect of media competition on agricultural policy differs in poor versus rich countries. In particular, mass media competition reduces agricultural protection in rich (developed) countries, and increases agricultural protection (or reduce taxation) in poor (developing) countries [8]. The model also predicts that the government transfers will be biased toward groups more attractive to advertisers. As rich people have more money to spend this would imply that the expected “advertiser-value effect” of media competition on agricultural protection would be as follows: small in (very) poor countries, because rural and urban incomes (excluding government transfers) are similar and, negative in rich and emerging countries, where urban incomes are much higher than rural incomes (excluding government transfers). There may be an inverse U-effect with income gaps largest in emerging countries. This effect can be reinforced by an uneven spread of mass media (eg TV) between urban and rural areas. There would be a relatively small gap in very poor countries (as TV distribution in both urban and rural areas is very low) and a rise in urban TV distribution relative to rural TV distribution when countries grow, with the gap in TV distribution narrowing again at high income levels.

Together, these effects imply that the total media effect will: increase agricultural protection (or reduce agricultural taxation) in poor countries owing to the group size effect, · reduce agricultural protection in emerging countries owing to the advertiser value effect and, · strongly reduce agricultural protection in rich countries owing to the reinforcement of

group size and advertiser value effects. This results in the hypotheses that (a) given the changing role of the agricultural sector due to economic development, the impact of mass media competition on agricultural policy will differ between poor and rich countries, *ceteris paribus*, and (b) this effect is contrary to the so-called development paradox of agricultural policies. Thus, the traditional change in agricultural policy from taxation to subsidization associated with economic development will be leveled in the presence of mass media competition. We hypothesize that this is due to a combination of the group size effect with larger groups being more attractive to the media, and the advertiser value effect, with richer groups being more attractive audiences for the media. To empirically test these predictions we use a new dataset from the World Bank on taxation and subsidization of farmers and food consumers from 69 countries since 1960. Our analysis looks at both cross-country and time-series variation in the data [9]. Our empirical results are consistent with the theoretical hypotheses that public support for agriculture is affected by the mass media. In particular, an increase in media penetration is correlated with a reduction in agricultural taxation in poor countries and a reduction in agricultural subsidies in rich countries. These results are robust to the use of different indicators of agricultural policies, different media variables, different control variables and estimation techniques. The paper's findings also contribute to a growing body of evidence suggesting that free and independent media are key to efficient public policies. Previous studies suggest that a more informed and politically active electorate increases the incentives for a government to be responsive and that the mass media reduces the power of special interest lobbies related to unorganized interests. Our results are consistent with the argument that an increase in media (television) diffusion is associated with policies that benefit the majority to a greater extent (i.e. a reduction in taxation of farmers in poor

countries and a reduction in the subsidization of farmers in rich countries) and, that increased competition in commercial media contributes to more efficient public policies by reducing transfers to special interest groups [11]. The purpose of this present study is to explore the role of social media in dissemination of agricultural information and technologies among farmers which was conducted. The method of focus group has been adopted for data collection. A sample of 72 farmers based on 4 Focus Groups from was drawn. The target age of respondent was 21 to 50 years. Information seeking is primary function on the social media for farmers. Mostly farmers trusted the agricultural technology and information from social media and very few farmers did not trust regarding the agricultural technology and information from smart phone apps. As the results show that almost 89% respondents were in favor of social media for agricultural technology and information. Most of the respondents strongly approved this declaration. Therefore it is decided that most of the respondents use internet regularly. According to the farmers' perception, social media provided more authentic information about agricultural technology as compared to the other channels. As the results showed that almost 82% of the respondents were in favor of smart phones consumption for authentic information as compared to other channels. According to most of the farmers social media has affected their perception about agricultural technology information regarding agriculture and very few farmers had perception that social media has not affected them. As the result show 86% of the respondents were affected by its consumption for providing more information about new technologies regarding agriculture. Most of the respondents' strongly approved with declaration. Using smart phone application has increased their information and literacy as well. Now they feel themselves skilled in using smart phones and to find out their agricultural solutions. It's indeed a truth that smart

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cellular phones and their applications are added to be the part of our culture to make people aware, to educate them and moreover to transform their behavior towards a particular task successfully [13]. According to most of the farmers' perception that social media provide the awareness and information about seasonal crops production, land preparation, management, protection, uses and ways of verity of fertilizers, irrigation, time, ways, pesticide, diseases control, pest control measurement, plants production, ways of harvesting, marketing, extension programs. This practiced has also been improved their learning skills by using social media applications as well.

Facebook

Facebook is the most used social media platform in the world, with more than 1.87 billion monthly active users on its site [4]. And this means a huge potential for extension professionals. Some examples where Facebook is being used as an extension tool by individuals, professional networks, and extension

Social Media Tools Commonly Used in Agriculture Extension

The use of social media in the agriculture sector and expansion has gained momentum in recent times, with only popular platforms such as Facebook, Twitter, and YouTube being used for agriculture and extension related works. WhatsApp is another major platform used by extension professionals to communicate with peer or client farmers but as communication (individual and group) is personal, more information is available about groups other than being referred to by media is not. The various social media tools popular these days are listed below.

YouTube

YouTube It is the video-sharing platform with a mission to give everyone a voice and show them the world and is based on four values: Freedom of expression, Freedom of information, Freedom of opportunity, and Freedom of belonging.

organizations. Twitter Microblogging site Twitter is one of the most popular social media platforms globally with 320 million users. In a social context, it has been one of the major catalysts used for creating public opinions and for organizing people into groups. In agriculture too, it is one of the most used platforms.

Users can upload and watch the videos, and there is provision for sharing and commenting on videos with additional facilities for the subscription of other users.

Blogs

Blogs contain detailed information on specific topics. They create and facilitate an in-depth discussion on any issue through comments from the readers. With increased popularity, many blog competitions are also organized worldwide for rural youth to encourage them to start a discussion about farming. Even organizations like World Bank, Food and Agriculture Organization (FAO) and

International Food Policy Research Institute (IFPRI) have their blogs not just to discuss issues but announce their new publications like policy papers, working papers, and reports and so on; communicate summaries of important publications, and to increase awareness and discussion on important issues related to agriculture and rural development.

WhatsApp

A messenger app for smartphones, it is an internet-based messaging platform that supports text, audio, video, pdf, and various other forms of files. Real-time video chatting has also been integrated recently, making it more popular among users. Currently, there are more than one billion users of the app in 180 countries.

Though initially used for personal messaging, it is gaining more popularity among agricultural professionals and practitioners to share information, which is aided by the group messaging feature. There are a few hundred thousand WhatsApp groups created for agricultural extension and advisory services.

Role of Social Media in Farming

In the global context, the agricultural sector is using social media to promote relevant information and knowledge within the industry and to network with other like-minded agricultural professionals. Social media channels enhanced and strengthened the relationships of agri-based communities and helped rural workers combat the segregation created by their work. It has crossed geographical boundaries, thereby connecting the peasant communities to mutual interest. So far, blogs have a large presence covering topics on agriculture, animal husbandry, health, education, and other topics/topics of general interest. Social media such as Facebook, Twitter,

YouTube, and blogs are emerging as an appropriate platform to share information and create awareness among various stakeholders to generate and shape the content of the event. These media complement traditional media as a viable source of information and facilitate the marketing of agricultural products and their products using pictures, links, and videos. They provide opportunities for users to share and exchange information and to discuss burning issues in agriculture based on their knowledge and experience and to formulate effective solutions to such problems, thus marketing and building networks We do.

CONCLUSION

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 upon, archived, and used by virtual communities and networks. Agricultural is not a new concept; however, changing platforms for communication can seem foreign to some people. Perception of social media as a valuable tool rather than a time-wasting application is important to

change to extend to the value to more people. The popular social media tools i.e. Facebook, WhatsApp, and YouTube are being used for information delivery and sharing across different agriculture subsectors (crops, horticulture, dairy, goat farming) in India. Most of them are through individual efforts. There is a definite lack of organized efforts to use social media from the public extension system.

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