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The Benefits of Social Media Platforms Used in Agriculture for Information Dissemination

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ABSTRACT

Traditionally, agricultural information is disseminated through industrial media such as newspapers, television, and radio. People, including farmers, are using social media platforms like Facebook, Twitter, YouTube, and blogs to spread personal or agricultural information. This paper highlights the benefits of social media to farmers as follows: coverage of large geographical boundaries in a short time, reducing farmers' social isolation, increasing networking platforms, mobilising farmers, keeping farmers updated and marketing agricultural goods with ease. Literature acquired from Google Scholar, Scopus, Science Direct and the University of Limpopo e-library search engines provided sources of information for the paper. This paper discusses the benefits of social media, defines the concept of social media, and lists different social media platforms available to farmers. It concludes that social media can enhance farmers' capabilities and interaction with extension officers. The paper recommends that agricultural news and communication be spread using social media platforms popular in the farming communities, that there be development of information centres where farmers can access social media and get assistance while accessing such information and that they receive proper training on the use of social media platforms. Extension officers must be equipped with skills to package relevant information to disseminate to the farmers.

Keywords: Extension officers, Farmers, Information dissemination, Social media

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1. INTRODUCTION

Social media refer to interactive and digital channels, allowing farmers to communicate online (Mamgain et al., 2020). These channels promote dialogue, mass communication, marketing, and information dissemination (Paudel & Baral, 2018). Skiba (2017) describes social media as websites and applications that individuals select and use for social interactions, content sharing, and creation in a virtual space.

Farmers use social media in agriculture: Twitter, WhatsApp, Facebook, Instagram, and TikTok (Bhattacharjee & Raj, 2016). They widely use these platforms to interact with friends and colleagues in search of information and to form collaborations with other farmers (Cinelli et al., 2021). Social media have made it possible for farmers and their customers to interact. They have also increased farmers' visibility and activities on platforms such as Facebook and Twitter. Beyond receiving information and reaching out to extension officers, farmers use social media platforms such as YouTube to create videos about their farming activities. The more people share information on the platforms, the more their shared information reaches an even broader audience (Casey et al., 2016).

The popularity of social media has overshadowed its negatives in the business industry (Chang & Lindner, 2017). Chang and Lindner further state that it is an enormous disadvantage for a business not to use social media, as this hinders business growth. Extension officers in agriculture rely on social media to receive information in their workplaces using their electronic devices (Bhattacharjee & Raj, 2016). Since extension officers already use social media in their day-to-day activities, they can follow the correct procedures of formalising social media use in their workspaces, including planning, security, marketing, and creating online communities (Thakur & Chander, 2018). Extension personnel use social media metrics to measure the effectiveness of their existing social media pages on different platforms (Liu, 2010). These metrics use indicators such as comments, likes, number of friends, followers, mentions, and fans to measure the impact of the information they share with the farmers and the public. Although social media is good for extension officers, it might pose challenges to them regarding their inability to perform hands-on experiments with the farmers, their acceptance of social media, and their lack of adoption by traditional extensionists (Kapuscinski, 2017). Issues like privacy, cyberbullying, addiction, misinformation, legal issues, and security are some of the critical delimitations to social media usage that affect both farmers and extension officers.

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People use social media platforms to publish their daily activities, comments, and photos as well as re-publish information posted by others. There are six categories of social media platforms: social network sites, blogs, microblogs, wiki, photo sharing, and video sharing. Social media platforms effectively create participation, collaboration, interaction, and communication among students and instructors (Alshehri, 2020). their study, Inegbedion et al. (2021) list examples of social media platforms as Facebook, Instagram, and WhatsApp. On the other hand, Thakur and Chander (2018) identify popular social media platforms as Facebook, WhatsApp, and YouTube; they further single out Facebook as the most popular. Greenhow and Chapman (2020) identify Facebook and Twitter as the main platforms used in education. There are essentially various online social media platforms such as blogs, business networks, collaborative projects, enterprise social networks, microblogs, forums, product reviews, photo sharing, social gaming, social bookmarking and video sharing (Aichner et al., 2021). Facebook, WhatsApp, Twitter and YouTube are widely used in agricultural extension, while WhatsApp is the most used platform to communicate with peers and farmers.

2. MATERIALS AND METHODS

This paper conducted a literature review to relate the benefits of social media for information dissemination in agriculture. A systematic literature review examined existing literature from relevant sources such as Google Scholar, Scopus, Science Direct and the University of Limpopo e-library search engines. The literature period considered in this paper is from 2016 to 2022. The keywords used during the literature search were social media, farmers, social media platforms, information dissemination, extension officers and benefits.

3. RESULTS AND DISCUSSION

Social media refers to a computer-based technology that facilitates sharing ideas, thoughts, and information through virtual networks and communities (Novianty, 2020). According to Newman et al. (2017), social media entails any digital tool that allows users to create and share content with the public quickly. Social media are further defined as an Internet-based medium that rapidly provides users with electronic communication of content such as personal information, documents, videos, and photos (Srivastava et al., 2019). Similarly, Kapoor et al. (2018) define social media as interactive technologies that facilitate creating and sharing information, ideas, interests, and other expressions through virtual communities and networks for a specific audience. In addition to creating and sharing content, Greenhow and Galvin

(2020) assert that social media is a great space for creating social networks. Voorveld (2019) further states that the information shared on social media is based on the ideological and technological foundations of the users. For consumer informatics, social media are an online resource that encourages individual engagement (Bishop, 2019). Social media is a techno-social system for participatory culture, with characteristics like participation, openness, connectedness, conversation, and community (Samsudin, 2020).

Users interact with social media through a computer or a smartphone via web-based software or applications. Social media originated as a way to communicate with friends and family but has since been adopted by businesses and organisations that want to use a popular method of communication to reach customers and members (Ahmad et al., 2018). The power of social media lies in their ability to share information with many people on Earth simultaneously.

For many years, agriculture never had such a powerful tool to connect millions of farmers and extension officers from their homes and anywhere in the world. Social media have empowered everyone's voice, and while that may come with its challenges, there are opportunities for the taking, especially when it comes to telling the world's agricultural story. Social media is now a global form of communication, and it is growing in popularity with the increasing number of smartphones and ease of use on the go (Rugova & Prenaj, 2016). The world now has 3.29 billion users of social networking sites, and other industries have adopted these platforms for business and customer interaction (Appel et al., 2020).

3.1. Social Media Platforms

3.1.1. Facebook

It is a platform used by extension officers, organisations, and other agricultural networks. Facebook is a site that enables users who create profiles to connect to family and friends (Houghton et al., 2020). According to Tandon et al. (2020), the information posted on social media platforms like Facebook, if not restricted, can be viewed by anyone on the platform or outside. Facebook has features that enable users to make their profiles private or public to protect what they share on the platform (Kozlowska, 2018). Facebook further encourages user interaction and information sharing (Sandeep et al., 2022). It always allows predators to come after young users because their information is available to the public (Mico, 2019). Cyberbullying mostly takes place on social media, according to Khairy et al. (2021), and bullies are provided with enough information to use against others and to also send other users horrid

messages. For these reasons, most farmers do not like using social media, as they become afraid that strangers might start contacting and threatening them. Regardless of the negatives, Facebook is a great platform to create friends, connect and reunite with family members, and assist job seekers in securing jobs.

3.1.2. Twitter

It is a microblogging site used globally by many users, and it is used to create public opinions in a social context. Twitter uses interaction paradigms like mentions, retweets and hashtags (Cinelli et al., 2021). According to Kaur et al. (2021), a few farmers use Twitter for personal networking, information sharing and entertainment. It allows users to send short messages because it is a microblogging service. It is further widely used by media firms to increase productivity and growth (Adeyeye & Ohunyowon, 2019). Users on Twitter can specify who they want to follow, depending on the type of content they seek on the platform (Paudel & Baral, 2018), and extension officers use it for educational and marketing purposes. Although Twitter was found to be very small, according to the results of Roche et al. (2020), it was revealed that farmers who use it do so to interact with other herd producers about milk production.

On the contrary, plant producers indicated that Twitter is the most used platform to seek soil-plant information and networking (Alotibi & Dabiah, 2022). Twitter enables students to actively participate in educational activities and give instant feedback (Mirembe et al., 2019). Among all age groups, young adults were found by Hruska and Maresova (2020) to be heavy users of social media platforms like Twitter.

3.1.3. YouTube

It is a video-sharing platform to give people at all levels a voice in their respective communities. Roche et al. (2020) describe YouTube as a platform where users can obtain information rather than interact with peers. Lecturers in engineering and computing use it to access educational information and also to create content (Mirembe et al., 2019). According to Hruska and Maresova (2020), the activity on YouTube decreases as the users' age increases; on the other hand, men use YouTube more than women. Like Facebook and Twitter, YouTube is widely used for personal networking and entertainment (Kaur et al., 2021). Farmers use YouTube to publish their videos about farming activities. It is further used to obtain information about

agriculture-related news. The use of YouTube among soil-plant farmers was found to be directly related to the knowledge gained on agricultural topics (Alotibi & Dabiah, 2022). In medical education, YouTube is used to enhance quality and create educational activities through the involvement of stakeholders (Latif et al., 2019). Despite all the benefits of social media, Chander, Thakur, and Scientist (2018) state that agricultural extension and farmers have not fully explored the benefits of this platform to reach out to each other.

3.1.4. Blogs

Blogs entail thoroughly discussing topics on issues that affect communities and having a platform for readers to leave comments (Mamgain et al., 2020). Unlike other social media platforms like Facebook and WhatsApp, Blogs have less popularity even though they support knowledge management and sharing (Nain et al., 2019). Blogs were the least-rated platforms for searching for agriculture information (Sandeep et al., 2022). Furthermore, Blogs enable users to create content freely and provide useful information to farmers using different languages (Singh et al., 2019).

3.1.5. LinkedIn

Media firms use LinkedIn to increase networking and organisational productivity (Adeyeye & Ohunyowon, 2019). LinkedIn is a social network site that enables interactions and socialisation among people of similar interests (Anwas et al., 2020). Additionally, Paudel and Baral (2018) state that LinkedIn is widely used as a platform for professional job seekers, academics and businesses. Jobseekers can interact directly with employers on this platform and create a massive contact network.

3.1.6. Wikis

They are online encyclopaedias that allow users to add, remove, edit and modify content independently and directly from web browsers, with a typical example being the collaborative web-based encyclopaedia project, Wikipedia (Paudel & Baral, 2018).

3.2. Benefits of Social Media in Agriculture

Social media overcome geographical boundaries and create communities that share common interests. The users also seek information from traditional social media platforms (Singh, 2020). Using social media platforms for networking between farmers reduces farmers' social

isolation, enabling them to meet and network with other farmers, agribusinesses, and consumers around the world. The biggest reason people stay active users of social media is not because they feel secure and comfortable but because they appreciate the value or service that the media provides (Anderson, 2019). These platforms can mobilise farmers to come together for a common cause and strengthen their relationships (Nwakwuo & Benson, 2021). In education, learners use social media to connect and keep each other updated on their lives. Apart from this social connection, they are further used by educators to post the content covered in class to the learners (Pandey & Dubey, 2020). Social media are used to create awareness, share information, engage with the audience, strengthen agricultural extension, combat the feeling of isolation, overcome geographical barriers, and create communities with the same interests and values. Social media also helps extension officers stay updated on recent developments in agriculture. If utilised well, social media can be a good tool for sharing agricultural information (Lakshmi & Babu, 2018). Social media in agriculture aids with quick relationship building for farmers, raising awareness, bringing economic opportunities, increasing access to resources and education, changing influenced cultures, and expanding the scope of usage in various sectors. They play an influential role in agriculture and reduce farmers' social isolation (Karle & Mishra, 2022). Social media connect people that are far from each other, although users can abuse this freedom of connection by engaging in social hatred and social divisions.

Politically, social media are an excellent tool for mobilising the masses for a particular cause. They have also enhanced political participation in South Africa. People look for jobs and socialise on social media. People use social media to voice their grievances and to share real-time happenings (Legodi & Shai, 2020). Social media platforms make access to information very cheap and faster, and reach a large audience (Sandeep et al., 2022a).

Social media are a good virtual tool for connecting people and aid in mass education (Patel & Kumar, 2021). Social media can be used for communication and networking among farmers. Farmers also use social media to grow their production. Social media have increased two-way communication. They strengthen relationships in agricultural communities (Chepkiruri, 2021). They are used for social good, such as organising community activities, empowering citizens, and coordinating emergency or disaster relief efforts; they connect people across large geographical distances. The Ministry of Agriculture in South Africa uses social media to share the latest developments. Social media blur the line between social security and technology

(Samsudin, 2020). These media provide people a platform to connect and share knowledge and technologies through certain means, such as developing groups or pages. Social media aid people to work hand in hand by forming a network base, information flow, and cost-effectiveness (Paudel & Baral, 2018).

Social media presents opportunities to extension officers include timely delivery of science-driven information to farmers (Kapuscinski, 2017). Television, radio, newspapers, field visits, and farmers' days are used in South Africa for agricultural information dissemination (Ani & Baba, 2010). Several challenges discourage the use of social media by extension officers and farmers (Lakshmi & Babu, 2018). Illiteracy, lack of awareness, expensive data costs, poor training, power outages, lack of authentic information, and cyber security issues are some of the factors that hinder farmers from using social media for their business. However, farmers without relevant and updated information develop slowly, hindering productivity (Malekani & Mubofu, 2020). Farmers lose much of their produce without timely, relevant, and updated information (Malekani & Mubofu, 2020). Although there are existing means of information dissemination for both farmers and extension officers, there is a need for alternative approaches to disseminating information, like the adoption of social media as a tool (Mbagwu et al., 2018). Combining both traditional methods and social media for disseminating information will help extension officers and farmers, as they will save time when using social media to disseminate information to many farmers in different areas simultaneously. Farmers will benefit from this practice by making informed decisions, interacting with fellow farmers, and asking extension officers questions regarding the daily challenges they encounter regarding their produce (Chander et al., 2018). Farmers need information about weather, pests, diseases, markets, and upcoming events in the agricultural sector.

4. CONCLUSION AND RECOMMENDATIONS

Farmers today have the opportunity to learn more about agriculture through the media due to technological advancements (Busungu et al., 2019). Social media are recognised as a powerful tool for communication in the agricultural sector (Tao et al., 2020). Despite the many challenges farmers face concerning the use of social media, there are more benefits to be acquired by using these platforms. This review revealed that agricultural information is traditionally disseminated through the industrial media such as television, and newspapers. Currently, people, including farmers, are using social media such as Facebook, Twitter,

YouTube, wikis and blogs to spread both personal and agricultural information (Keryn, 2018). Apart from this, people also use social media for satisfaction, such as social interaction, entertainment, and access to social information (Kircaburun et al., 2018). Social media play a key role in building relationships and enabling the flow of information among various actors involved in agricultural innovations, which enhances the capabilities of extension officers and other service providers (Kipkurgat et al., 2016).

Based on the findings of this paper, it is recommended that:

- Agricultural news and communication be spread using social media platforms popular in the farming communities;
- There should be information centres where farmers can access social media and get assistance while accessing such information;
- Proper training on social media platforms, especially for extension officers, must be prioritised to enable the provision of relevant information to farmers.

This study revealed that there are existing social media platforms that are used in agriculture for information dissemination. Therefore, social media has different uses and benefits, particularly in the dissemination of relevant, timely, and reliable information to farmers.

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