

**USE OF SOCIAL MEDIA IN MARKETING OF
AGRICULTURAL PRODUCTS BY AGRO-
COOPERATIVE SOCIETIES IN ANAMBRA STATE,
NIGERIA.**

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Abstract

The study examined the relationship between the use of social media and the marketing of agricultural products by agro-cooperative societies in Anambra state, Nigeria. Three hypotheses were tested in the study. The correlational research design was adopted for the study. The study purposively sampled 200 farmers who are registered members of agricultural cooperative societies in Anambra State. The instrument for data collection was two structured questionnaires. Simple regression was used to analyze data for the study. The findings of the study revealed that there is a statistically significant

relationship between the use of social media (Facebook, WhatsApp and YouTube) in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State. Based on these findings, it was recommended among others that agricultural cooperative societies can work with technological experts, marketing professionals, and social media influencers to effectively optimise their online presence and marketing efforts.

Keywords: Social Media, Marketing, Agricultural Products, Agro-Cooperative Societies

Introduction

Agricultural co-operatives are farmer-owned cooperatives whose major goal is to raise member farmers' production and income through improving access to finance, agricultural inputs, information, and output markets. Agricultural cooperatives exist to assist farmers in increasing their yields and incomes by pooling resources to support collective service provisioning and economic empowerment. Agricultural cooperatives are seen as critical in achieving the government's development targets due to their primary mandate to contribute to smallholder farmer production, and focusing on other types of cooperatives necessitates an alternative framework for analysis (Onugu & Abdullahi, 2012). The primary types of agricultural co-operatives fall into the mainstream activities of agricultural enterprises, which include agricultural input supply, joint production, and agricultural marketing. Agricultural marketing cooperatives serve a variety of purposes (Sifa, 2012). They may combine the products

of several producers into larger lots to allow for more efficient handling and competitive sales, and then grade and transport these lots to market (Palaniswamy & Raj, 2022). Marketing cooperatives allow producers to correct market failures where prices are too low or buyers have left the market; provide a service not otherwise available; gain market power (negotiating power) against much larger buyers; spread risks and costs; and have enough volume to operate a processing plant efficiently or meet buyer demands. Sadly, Nigeria Cooperative Societies especially agricultural cooperative societies struggle with marketing their products.

Low commodity prices, the agricultural economy, operational challenges, and rising costs were the most commonly stated problems among all cooperatives over the last year. The agricultural economy, poor commodity prices, operating challenges, and rising costs were all mentioned in the near future, but with a little shift in emphasis (Adefila & Madaki, 2014). Farmers' ineffective marketing of agricultural products is a big contributor to low sales and profitability. A lack of good marketing frequently results in a mismatch between the quality of the items and the awareness of potential customers. Inadequate marketing stymies agricultural products' potential success. Due to inadequate promotional techniques, farmers' efforts to produce high-quality items frequently go unappreciated. As a result, farmers are having a tough time attracting the attention of consumers who could profit from their products. The distance between farm and market remains, resulting in low sales, financial hardships, and decreased farmer motivation.

This has increased the call for the adoption of social media as tools for marketing of agricultural products.

Social media is a collection of internet-based applications that are built on an ideological framework and enable the creation and sharing of user-generated content. Social media as a diverse set of Internet-based and mobile services that enable users to engage in online trade, contribute user-created content and join online communities. Social media, according to Ngwu (2019), are modern interactive communication channels through which individuals engage with one another, exchange ideas, experiences, photographs, messages, and information of mutual interest. Social media (SM) is user-generated media that allows people to share their knowledge and opinions with the rest of the world. Akoh (2017) identified four major benefits of social media use that include; strengthening relationships, improving learning motivation, providing customized course content, and developing collaboration skills. The link between social media and the marketing of agricultural cooperative have been a subject of recent research (Palaniswamy & Raj, 2022). Appel et al. (2020) noted that increased smartphone adoption assisted farmers, agribusiness, and extension agents in using social media for knowledge transmission and social engagement. Palaniswamy and Raj (2022) stated that people can better appreciate the strategic value of social media marketing resources and competencies thanks to the digital environment. Mamgain et al. (2020) stated that the agricultural sector is embracing social media to disseminate relevant information and knowledge inside

the industry and to network with other like-minded agricultural experts. Social media channels improved and reinforced the bonds of agri-based communities and assisted rural workers in combating the segregation caused by their work. Balkrishna and Deshmukh (2017) noted that social media in agriculture marketing has a favourable impact on consumer interaction, company or brand awareness, and sales. It has crossed geographical boundaries, joining peasant communities of mutual interest. However, product promotion is required to reach its target audience and so raise awareness, interest, and, ultimately, sales. It is against this backdrop that the study investigated the impact of the use of social media (Facebook, WhatsApp and YouTube) on the marketing of agricultural products by agro-cooperative societies in Anambra state.

Literature Review

Concept of Social Media

Social media is a group of internet-based application that builds on the ideological foundation and allows the creation and exchange of user-generated content. Peter (2015) defined social media as a group of Internet based applications that build on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of user generated content. Dearborn (2014) defined social media as a communication channel which is very popular, extremely fast and broad, has proven to be highly effective, as well as trusted by billions of people , to share and discover content concerning individuals, brands, information, entertainment and knowhow. Social

media according to Jha and Bhardwaj in Bouchikhi and Bouanani (2017) are category of online discourse which enables people to create contents, share them, bookmark them and network at a prodigious rate. Bouchikhi and Bouanani described social media as "just about any website powered by user on a constant and mandatory basis. Heyam (2014) saw social media as the fastest growing web application in the 21 century and this rapid development is being backed by technological advancement. This paper focused on Facebook, WhatsApp and Youtube.

Facebook

Facebook is a well-known social media network that enables people to interact, communicate, and share material online. It was founded in 2004 by Mark Zuckerberg and has evolved to become one of the World's largest and most popular social networking sites. Facebook is a virtual environment where people can socialise, exchange updates, images, and videos, and participate in numerous activities (Nwaizugbo & Abereola, 2021). It has changed the way people communicate and engage with their friends, family, coworkers, and even brands or organisations. Users can establish personal profiles, send friend requests to others, and join or create groups and pages based on similar interests. Facebook has transformed the digital landscape of modern communication by serving as a centre for social interactions, information sharing, news consumption, and entertainment.

WhatsApp

WhatsApp is a popular instant messaging programme that lets users send text messages, make audio and video chats, and share pictures, videos, documents, and other multimedia information. It functions as a cross-platform communication tool, allowing individuals to interact in real time with friends, family, coworkers, and groups regardless of their physical location. WhatsApp, which was purchased by Facebook in 2014, provides end-to-end encryption, which ensures that messages and calls are secure and can only be accessed by the intended receiver. This security feature protects users' privacy by prohibiting unauthorised access to their communications. WhatsApp is accessible for download on smartphones and computers, with specialised apps for iOS, Android, and Windows operating systems. To start up, users must have an active phone number.

YouTube

YouTube is a well-known and popular internet video-sharing site. It was founded in 2005 and has since evolved into a primary centre for individuals, creators, and organisations to upload, watch, share, and interact with a wide range of films. YouTube has evolved into a dynamic and diverse platform that covers multiple genres, content types, and user interactions as one of the most popular websites on the planet. YouTube allows users to watch videos on a variety of themes, including entertainment, education, tutorials, music, vlogs, news, and more. The platform's user-friendly interface allows users to search for specific videos, examine trending

content, and subscribe to their favourite producers' channels.

Concept of Marketing

Marketing is the systematic process of marketing and selling products, services, or ideas to a specific target audience in order to achieve specific goals such as increased sales, brand awareness, customer engagement, and overall corporate success (Udah, 2020). It encompasses a variety of activities and techniques used by businesses to connect with their consumers, communicate the value of their services, and gain a competitive advantage in the market. Marketing enables the formation of distribution units, processing units, storage units, and purchasing and selling units. As these units are developed, they generate work for people, resulting in economic improvement, opportunity, and development. Marketing in agriculture is the complex process of obtaining and retaining clients for agricultural products. It essentially centres on the marketing of agricultural goods. According to Onyeabor in Nwaizugbo and Abereola (2021), agricultural produce marketing entails stimulating demand and pushing sellers to efficiently transfer agricultural items to end customers while maintaining profitability. This comprehensive endeavour ensures that agricultural products are seamlessly channelled from the beginning phases of production to their availability for consumer benefit.

Agricultural marketing encompasses the coordination of numerous activities. These activities direct the

movement of commodities and services from producers, often farmers, to consumers. Agricultural marketing is focused to achieving the farmers' aims by efficiently organising this dynamic flow (Nwaizugbo & Abereola, 2021). This requires not only satisfying consumer requirements, but also ensuring that the producers', particularly farmers', aims are efficiently realised.

Theoretical Framework

The theoretical framework is an important conceptual scaffold that guides the research, shapes the hypotheses, and serves as a lens through which the study's findings are interpreted. The Diffusion of Innovations theory can give a comprehensive foundation for analysing the relationship between social media usage and effective marketing techniques within Anambra State agro-cooperative societies.

Diffusion of Innovations Theory:

The Diffusion of Innovation Theory, introduced by Everett Rogers in 1962, investigates the process through which new ideas, technologies, or practises are embraced and propagated within a social system. This theory emphasises the stages of innovation adoption by people or groups and highlights crucial elements that determine the rate of adoption. The theory divides people into several adopter types based on their proclivity to embrace innovation. These groups include innovators, early adopters, early majority, late majority, and laggards.

Innovators and Early Adopters: These individuals or groups are frequently the first to embrace new technology or practises. In the context of agricultural cooperatives, innovators could be forward-thinking cooperative leaders or tech-savvy farmers who realise the potential of social media marketing to improve their operations and reach.

Early Majority: As the adoption curve proceeds, the hypothesis proposes that the early majority will follow the innovators and early adopters. Before making their decision, these people or groups consider the experiences of the early adopters. According to the report, this may involve cooperatives observing the success stories of their peers in using social media for marketing and then opting to implement similar techniques.

Late Majority and Laggards: The late majority and laggards are more conservative when it comes to accepting new technologies. They may need more time to accept change due to skepticism or questions about the innovation's viability. These groups could include cooperatives that take a wait-and-see strategy, watching how their peers utilise social media before deciding to adopt it themselves.

The Diffusion of Innovation Theory provides a useful lens for analysing the use of social media in marketing among agricultural cooperative groups in Anambra State. The study can provide nuanced insights into how and why agro-cooperatives embrace social media for marketing agricultural products by analysing the stages

of adoption, adopter categories, and influencing factors, contributing to the greater knowledge of technology adoption in this context.

Empirical Review

Palaniswamy and Raj (2022) examined the driving forces behind South Indian farmers' adoption of social media. Data collection uses a standardised questionnaire. In Tamilnadu, South India, 320 farmers provided the primary data. To evaluate the importance of the research model, multiple regressions is performed. It reveals that social media marketing adoption was significantly influenced favourably by perceived credibility, reference group, infotainment, and usefulness. At the same time, attitudes regarding the usage of social media marketing are negatively impacted by perceived ease of use.

Nwaizugbo and Abereola (2021) ascertained the extent to which the use of social media in agricultural product marketing in South-West Nigeria can improve efficiency and lower marketing costs. It used a survey study design to collect data using a structured questionnaire to extract information from respondents chosen from six (6) southern states. The structural equation modelling method was used to analyse the research data. The findings revealed that using social media (WhatsApp and Twitter) in agricultural product marketing greatly improves efficiency in the cost of advertising agricultural products by drastically lowering the cost of marketing agricultural products. The management consequence is that using social media to optimise agricultural product marketing costs is possible.

Igbinedion et al. (2021) the study investigated the use of social media in the marketing of agricultural products and farmers turnover in south/South Nigeria. The purpose of the study was to determine the extent to which the usage of social media in the marketing of agricultural products in Nigeria can enhance efficiency and farmers' sales turnover, it employed the survey research design and data were collected with the help of a structured questionnaire. Research data were analysed using a t-test and least squares method. The use of social media (WhatsApp and Instagram) in the marketing of agricultural products was found to enhance efficiency and turnover of farmers through a significant reduction in the cost of marketing agricultural products as well as increased demand for agricultural products.

Balkrishna and Deshmukh (2017) explored the role and breadth of social media in agricultural marketing. They used descriptive research and primary data collected through a survey. The research tools were a questionnaire and in-depth interviews with farmers who use social media. According to the findings, social media is extremely effective in agricultural marketing because it saves farmers time and money. Some of the difficulties included mutual distrust and the difficulty of selling agricultural commodities on social media.

Mwangi and Wagoki (2016) investigated the impact of social media on the performance of the advertisement business in the mainstream media in Kenya. They chose 82 respondents using stratified random sampling. As a research tool, a questionnaire was used. We used both

descriptive and inferential statistics. The results show a considerable positive association between the performance of the commercial and the social media's interaction. Based on the reviewed empirical studies, the following hypotheses were formulated:

1. There is no significant relationship between the use of Facebook in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State.
2. There is no significant relationship between the use of WhatsApp in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State.
3. There is no significant relationship between the use of YouTube in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State.

Methodology

The study adopted the correlational research design. The population of the study comprised 3,458 farmers who are registered members of agricultural cooperative societies in Anambra State. The researcher utilized the purposive sampling technique to sample 200 farmers who are members of agricultural cooperative societies in Anambra State. Specifically, samples were collected from current cooperative society members; Crop, poultry, fish, and piggery farmers who belong to cooperative societies in the state with evidence of social

media usage on platforms like Facebook, WhatsApp and YouTube were included in the sample. The sampling frame was sought from the cooperative societies' management. The instrument for data collection was two structured questionnaires developed by the researcher. The first instrument was titled "Question on the Use of Social Media for Agricultural Marketing (QUSMAM)" while the second instrument was titled "Questionnaire on Cost of Marketing of Agricultural Products (QCMAP). Both instruments were structured on a 5-point Likert Scale. The instrument was examined for validity by professionals at the Nnamdi Azikiwe University, Awka, Anambra State, Nigeria. This satisfied the criteria for facial validity. To determine the content validity and reliability of the instrument, a pilot test was conducted on 20 farmers who are registered members of cooperative in neighbouring Enugu State. Enugu state was used because it shares similar characteristics as Anambra State. The derived principal components were then subjected to a content validity index (CVI) utilising both scale and item content validity measures. The values obtained were 0.76, 0.80 and 0.75 with an overall score of 0.77 for scale and item Content Validity Index (CVI), respectively while cost of marketing yielded a CVI of 0.72, indicating that the instrument was valid, as a value of 0.7 indicates a valid instrument. The test of reliability using Cronbach Alpha reliability method yielded reliability co-efficient of 0.78 and 0.76 for clusters 1 and 2 respectively with an overall reliability co-efficient of 0.77 which indicates that the instrument is reliable.

The researcher, along with the support of three research assistants who were briefed on the instrument administration procedure, conducted the administration of the questionnaire. This instrument was administered to the respondents during their respective weekly cooperative meetings. The process involved an on-the-spot administration, allowing respondents sufficient time to complete the questionnaire. In cases where immediate retrieval wasn't feasible, an arrangement was made for later collection. This data collection phase spanned a duration of three weeks, during which a total of 200 copies of the questionnaires were distributed to the respondents. Subsequently, 186 completed questionnaires were successfully retrieved and became the basis for the data analysis. The involvement of research assistants ensured the smooth and organized administration of the instrument. By distributing the questionnaires during the cooperative meetings, the study took advantage of a convenient platform to gather responses from cooperative members. The decision to retrieve the questionnaires on the spot or through later collection accommodated the preferences and constraints of the respondents. The collected data from the 186 retrieved questionnaires forms the dataset that will be subjected to rigorous analysis. This carefully executed process guarantees the credibility and validity of the data, providing a solid foundation for the subsequent analysis that will contribute to the insights and findings of the study.

In testing the null hypotheses, simple regression correlation analysis was employed to determine the

significant correlation between the variable of interest. In interpreting the values of the null hypotheses, when p-value is less than or equal to .05 ($p \leq .05$), the null hypothesis was rejected. On the other hand, when the p-value is greater than .05 ($p > .05$), the null hypothesis was not rejected.

Results

Hypothesis 1

There is no significant relationship between the use of Facebook in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State.

Table 1: Test of Significance of Simple Regression Analysis on the Relationship between the Use of Facebook in Marketing Agricultural Products and the Cost of Marketing Agricultural Products by Cooperative Societies in Anambra State.

	Unstandardized β	Std. Dev. β	Standardized B	t- value	p- value
Constant	35.423	11.675		12.454	.000
Use of Facebook in Marketing Agricultural Products	.765	.678	.801	25.676	.000
	R	.801			
	R ²	.624			
	Adj. R ²	.601			
	F	64.224			.000

The summary of the test of significance of simple regression analysis as shown in Table 1 revealed that the

simple regression coefficient (R) is .801 while the R^2 is .624 and Adjusted R^2 is .601. The F-ratio associated with the regression is 64.224 and the t-value is 25.676. Furthermore, the P-value of .000 is less than 0.05 level of significance. This means that there is a statistically significant relationship between the use of Facebook in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State. Thus, the null hypothesis was rejected.

Hypothesis 2

There is no significant relationship between the use of WhatsApp in marketing agricultural products and the cost of marketing agricultural products by cooperative Societies in Anambra State.

	Unstandardized B	Std. Dev. B	Standardize d B	t-value	p-value
Constant	40.550	15.220		19.021	.000
Use of WhatsApp in Marketing Agricultural Products	7.45	.718	.830	34.402	.000
	R	.830			
	R^2	.701			
	Adj. R^2	.741			
	F	52.350			.000

Table 2: Test of Significance of Simple Regression Analysis on the Relationship between the Use of WhatsApp in Marketing Agricultural Products and the Cost of Marketing Agricultural Products by Cooperative Societies in Anambra State

The summary of the test of significance of simple regression analysis as shown in Table 2 revealed that the simple regression coefficient (R) is .830 while the R^2 is

.701 and Adjusted R^2 is .741. The F-ratio associated with the regression is 52.350 and the t-value is 34.402. Furthermore, the P-value of .000 is less than 0.05 level of significance. This means that the effect of use of WhatsApp in marketing agricultural products on the cost of marketing agricultural products by cooperative societies is statistically significant. Thus, there is a significant relationship between relationship between the use of WhatsApp in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State. Thus, the null hypothesis was rejected.

Hypothesis 3

There is no significant relationship between the use of Youtube in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State.

Table 3: Test of Significance of Simple Regression Analysis on the Relationship between the Use of Youtube in Marketing Agricultural Products and the Cost of Marketing Agricultural Products by Cooperative Societies in Anambra State

	Unstandardized B	Std.Dev. β	Standardized β	t-value	p-value
Constant	25.006	9.996		10.060	.001
Use of Youtube in Marketing Agricultural Products	.506	.608	.700	15.215	.001
	R				
	R^2				
	Adj. R^2				
	F	40.100			.001

The summary of the test of significance of simple regression analysis as shown in Table 3 revealed that the simple regression coefficient (R) is .700 while the R^2 is .540 and Adjusted R^2 is .582. The F-ratio associated with the regression is 40.100 and the t-value is 15.215. Furthermore, the P-value of .001 is less than 0.05 level of significance. This means that the effect of use of YouTube in marketing agricultural products on the cost of marketing agricultural products by cooperative societies is statistically significant. Thus, there is a significant relationship between the use of YouTube in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State. Thus, the null hypothesis was rejected.

Discussion of the Findings

The findings of the study revealed a statistically significant relationship between the utilization of Facebook for marketing agricultural products and the associated cost of marketing these products within cooperative societies in Anambra State. This outcome underscores that the use of Facebook as a marketing tool directly impacts the financial aspects of promoting agricultural products by the cooperative societies. The statistically significant relationship suggests that changes or variations in the employment of Facebook for marketing purposes are accompanied by notable shifts in the expenses incurred for promoting agricultural goods. This is in line with Nwaizugbo and Abereola (2021) who reported that using social media (WhatsApp and Twitter) in agricultural product marketing greatly improves efficiency in the cost of advertising agricultural products

by drastically lowering the cost of marketing agricultural products. The findings highlight the influential role that Facebook, as a social media platform, plays in shaping the economic dimensions of agricultural marketing efforts undertaken by cooperative societies. The statistical significance emphasizes the validity and reliability of this connection, accentuating the need for these societies to consider the cost implications of integrating Facebook into their marketing strategies. This is in consonance with Mwangi and Wagoki (2016) who reported that a positive association between the use of social media and the performance of agricultural producers.

Furthermore, the findings of the study revealed a significant relationship between relationship between the use of WhatsApp in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State. These findings underscore the fact that the use of WhatsApp as a marketing tool directly impacts the financial aspects of promoting agricultural products within cooperative societies. The observed significant relationship indicates that changes or variations in the utilization of WhatsApp for marketing endeavors are closely linked to discernible fluctuations in the expenses incurred for promoting agricultural goods. This is in agreement with Igbiniedion et al. (2021) who found that the use of social media (WhatsApp and Instagram) in the marketing of agricultural products was found to enhance efficiency and turnover of farmers through a significant reduction in the cost of marketing agricultural products as well as

increased demand for agricultural products. The significance of this relationship underscores the legitimacy and robustness of the connection between leveraging WhatsApp, a popular messaging platform, and the financial implications of marketing agricultural products within cooperative societies. This recognition of statistical significance accentuates the importance of considering cost factors when incorporating WhatsApp into the marketing strategies of these societies. In the same vein, Balkrishna and Deshmukh (2017) revealed that social media platforms like WhatsApp are extremely effective in agricultural marketing because it saves farmers time and money.

Finally, the findings of the study revealed that there is a significant relationship between the use of YouTube in marketing agricultural products and the cost of marketing agricultural products by cooperative societies in Anambra State. This finding of the study emphasises the direct financial impact of using YouTube as a marketing tool for promoting agricultural products within cooperative societies. This is in agreement with Igbinedion et al. (2021) reported a significant finding that using social media platforms to advertise agricultural products increased efficiency and turnover among farmers. This improvement was made possible by a significant drop in the costs associated with selling agricultural products, combined with a significant increase in demand for such products. This revelation emphasises the revolutionary influence of harnessing social media platforms, like YouTube, in the area of agricultural goods marketing. Palaniswamy and Raj

(2022) noted that using social media platforms improved operational efficiency and generated revenue for farmers. The significant reduction in marketing expenses is a significant advantage, contributing to increased profitability in the agriculture sector. These assertions are in line with the findings of the present study which found that the use of YouTube for marketing purposes are strongly related to noticeable fluctuations in the costs incurred for promoting agricultural goods.

Conclusion

The findings of the study highlight the relationship between social media usage and cost of marketing agricultural products by agro-cooperative societies. The significant relationships established between the use of Facebook, WhatsApp, and YouTube for marketing endeavours and the costs associated with promoting agricultural products highlight the critical role that these platforms play in shaping the economic dynamics within cooperative societies' marketing efforts. Furthermore, these data support the efficacy and potential of social media platforms as essential components of current marketing strategy. The obvious links between social media usage and cost considerations highlight the necessity for cooperative societies to proactively leverage these channels to improve marketing efficiency while keeping financial implications in mind.

Recommendations

Based on the findings of the study, the study recommends the following:

1. Agricultural cooperative societies can work with technological experts, marketing professionals, and social media influencers to effectively optimise their online presence and marketing efforts.
2. Agricultural cooperative Societies should engage in training and capacity-building efforts to equip their members with the skills required to use social media platforms successfully. This guarantees that platforms are being used to their full potential.
3. Agricultural cooperative societies should integrate Facebook, WhatsApp, and YouTube into their marketing efforts strategically. Recognising the importance of the relationships formed, societies can use the power of these platforms to optimise marketing efforts.

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