

THE UTILIZATION OF FACEBOOK AND WHATSAPP AS DIGITAL MARKETING STRATEGIES FOR AGRICULTURAL PRODUCTS IN EAST BULANGO DISTRICT, BONE BOLANGO REGENCY

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ABSTRACT

This study aims to analyze the utilization of Facebook and WhatsApp Messenger as marketing media for agricultural products in East Bulango District, Bone Bolango Regency. Specifically, the study examines the role of Facebook in product promotion and information dissemination, explores the benefits of WhatsApp in facilitating communication and transactions between farmers and consumers, and identifies the supporting and inhibiting factors affecting the implementation of digital marketing strategies. This research employed a descriptive qualitative approach. Data were collected through in-depth interviews, observation, and documentation involving five purposively selected informants consisting of conventional farmers, digital farmers, and agricultural collectors. Data were analyzed using the interactive model of Miles, Huberman, and Saldaña, including data reduction, data display, and conclusion drawing. The findings indicate that Facebook serves as the primary platform for promoting agricultural products and expanding market reach, while WhatsApp facilitates direct communication, price negotiation, order confirmation, and transaction coordination. The use of these platforms enables farmers to obtain higher selling prices and reduce dependence on intermediaries. However, several challenges remain, including limited digital literacy, time constraints, logistical difficulties, challenges in marketing large product volumes, and low consumer interest in unbranded products. The study concludes that Facebook and WhatsApp have significant potential to support agricultural marketing in rural areas, although greater institutional support is needed through digital literacy training, marketing assistance, and infrastructure development to encourage wider adoption.

Keywords : *Digital Marketing, Facebook, WhatsApp Messenger, Agricultural Products, Rural Marketing.*

INTRODUCTION

The rapid advancement of digital technology has fundamentally reshaped the global trade sector, driven largely by the exponential growth of e-commerce. Globally, the e-commerce market is projected to expand dramatically from USD 7.65 trillion in 2023 to USD 20.35 trillion by 2030, marking a structural paradigm shift in product distribution and marketing frameworks. In Indonesia, internet penetration surpassed 210 million users in 2023, offering substantial avenues for comprehensive digitalization across various traditional sectors, including agriculture. Digital channels and e-commerce platforms provide smallholder farmers with vital access to broader market ecosystems,

enhanced bargaining power, and reduced transaction expenditures [1].

Despite this vast digital transformation potential, the national agricultural sector continues to grapple with deep-seated structural challenges, particularly in marketing activities still dominated by conventional mechanisms. Prolonged distribution channels involving multi-tiered intermediaries or local collectors often suppress selling prices at the farmer level while driving consumer prices up significantly. This massive price disparity directly constricts farmers' profit margins and relegates them to a weak bargaining position. However, integrating modern marketing media within agricultural structures can help

Submit: Dec 09th, 2025

Accepted: Feb 16th, 2026

Published: March 16th, 2026

Journal of Economic, Business and Administration (JEBA) E-ISSN: 2746-1688

stabilize product prices and simplify traditional sales channels [2]. Leveraging interactive platforms can drastically reduce overall marketing costs, increase operational efficiency, and elevate farmers' turnover by stimulating direct market demand [3].

East Bulango District, recognized as a primary rice production hub in Bone Bolango Regency, exhibits these exact conventional marketing vulnerabilities. Preliminary field observations reveal that rice prices paid by collectors to local farmers range from IDR 9,000 to IDR 10,500 per kilogram, whereas the retail market price surges to between IDR 12,000 and IDR 13,500 per kilogram. This prominent price gap is heavily captured by intermediaries. The issue is further compounded by rigid financial dependencies, such as informal debts and locked supplier arrangements between farmers and collectors, which effectively block farmers from accessing transparent market information.

While literature underscores the capacity of e-commerce and social media to shorten agricultural distribution chains, its localized implementation faces steep hurdles. Rural smallholders, including those in East Bulango District, remain constrained by low digital literacy, inadequate internet infrastructure, and limited technical expertise in content creation and strategic digital positioning [4][5]. Previous studies suggest that bridging these barriers requires a consumer-centric approach through precision data analysis and authentic storytelling to foster trust and strengthen direct farmer-to-consumer networks [5][6][7]. Therefore, evaluating tailored digital marketing media is

urgent to provide an effective, accessible, and sustainable solution for rural farmers [8].

Among various available digital tools, social media networks like Facebook and WhatsApp Messenger stand out as highly practical and highly adopted platforms for smallholder agricultural marketing [4]. Facebook offers extensive outreach capabilities for information dissemination and broad product promotion, while WhatsApp Messenger facilitates real-time, personalized interaction to close secure transactions. This study addresses the operational gaps in rural digital adoption by focusing specifically on these two highly accessible platforms.

Consequently, this study aims to:

1. Analyze the role of Facebook as a central platform for information dissemination and the promotion of agricultural products in East Bulango District.
2. Explore the benefits of WhatsApp Messenger in facilitating direct communication and fast-paced transactions between local rice farmers and consumers.
3. Identify the primary supporting and inhibiting factors in implementing these agricultural digital marketing strategies within a rural ecosystem.

RESEARCH METHODS

Research Design

This study employed a descriptive qualitative approach to examine the utilization of marketing media as a strategy for marketing agricultural products in East Bulango District, Bone Bolango Regency. The qualitative approach was considered appropriate because

it enables researchers to gain a comprehensive understanding of farmers' experiences, perceptions, and behaviors regarding the adoption of digital marketing media [9]. Through this approach, the study explored the dynamics of both conventional and digital marketing practices within the local agricultural sector.

Research Location and Informants

The research was conducted in East Bulango District, Bone Bolango Regency, Gorontalo Province. The area was selected because it is one of the major rice-producing regions in the regency and exhibits both conventional and emerging digital marketing practices among farmers.

Informants were determined using purposive sampling, whereby participants were selected based on their direct involvement in agricultural product marketing activities. The study involved five key informants representing different actors in the agricultural marketing chain, including conventional farmers, farmers utilizing digital marketing media, and agricultural collectors. Their diverse roles enabled the researcher to obtain a comprehensive understanding of marketing patterns, challenges, and opportunities within the local agricultural market.

Table 1. Research Informants

N o.	Inform ant Initials	Gend er	Position	Inform ant Code
1	WN	Male	Farmer (Conventional Marketer)	1
2	IR	Male	Farmer (Conventional Marketer)	2

3	KJ	Male	Farmer (Digital Marketer)	3
4	NR	Male	Farmer (Digital Marketer)	4
5	PM	Male	Agricultural Collector/Middleman	5

Data Sources

The study utilized both primary and secondary data. Primary data were obtained directly from informants through interviews and field observations. These data focused on marketing activities, the use of Facebook and WhatsApp as marketing tools, price determination mechanisms, relationships between farmers and collectors, and factors influencing digital marketing adoption.

Secondary data were gathered from academic publications, books, government reports, statistical data, and other relevant references related to agricultural marketing, digital technology adoption, and rural economic development. These sources were used to strengthen the interpretation and discussion of research findings.

Data Collection Techniques

Data collection was carried out through several techniques:

1. In-depth Interviews

Semi-structured interviews were conducted to obtain detailed information regarding the informants' experiences in marketing agricultural products. The interviews focused on marketing strategies, digital media utilization, perceived benefits, obstacles encountered, and future expectations regarding agricultural marketing.

2. Observation

Field observations were undertaken to examine actual marketing practices, interactions among actors in the agricultural value chain, and the implementation of marketing media within the study area.

3. Documentation

Documentation was used to collect supporting information, including photographs, field notes, and other relevant records that could enhance the credibility of the research findings.

Data Analysis

The collected data were analyzed using the interactive model of Miles, Huberman, and Saldaña [10]. The analysis process consisted of three stages.

1. Data Reduction

At this stage, the researcher organized, selected, and simplified the information obtained from interviews, observations, and documentation. Data that were relevant to the research objectives were categorized into meaningful themes.

2. Data Presentation

The reduced data were then presented in the form of descriptive narratives and thematic classifications to facilitate interpretation and comparison among informants.

3. Conclusion Drawing

The final stage involved interpreting the findings and drawing conclusions based on recurring patterns, relationships, and themes identified throughout the analysis process. The conclusions were continuously reviewed

to ensure consistency with the empirical data obtained from the field.

Data Validity

To enhance the trustworthiness of the findings, source triangulation was applied by comparing information obtained from different categories of informants, namely conventional farmers, digital farmers, and agricultural collectors. In addition, interview findings were cross-checked with observational data and supporting documentation to ensure the consistency and credibility of the information collected.

RESEARCH RESULTS

Farmers with Conventional Marketing Patterns

1. Conventional Marketing Practices

The findings reveal that conventional farmers in East Bulango District continue to rely on traditional marketing channels that involve direct transactions with agricultural collectors. The marketing process generally begins after harvesting, where paddy is either sold directly in dried form or processed into rice before being marketed. This pattern remains dominant because it is considered practical, requires minimal marketing effort, and provides immediate access to buyers.

One farmer explained:

“For rice sales, the harvested paddy is first processed into rice before being delivered to rice collectors. Usually, the collectors come to us to check the quality of the rice and then proceed with the transaction.” (MP, October 22, 2025)

Another informant stated:

“It depends. The price differs between dried paddy and processed rice. In our case, we usually sell directly in the form of dried paddy because we do not have a rice milling machine.” (IR, October 22, 2025)

These findings indicate that the lack of processing facilities and the convenience offered by collectors encourage farmers to maintain conventional marketing practices.

2. Relationship with Collectors and Transaction Arrangements

The relationship between farmers and collectors extends beyond product transactions and often includes financial support mechanisms. Collectors frequently provide advance payments or loans, creating long-term partnerships that influence farmers’ marketing decisions.

As stated by one informant:

“We have regular collectors. Usually, we have a long-term arrangement because sometimes we are tied by debt. We often receive a large amount of money in advance and repay it gradually through our rice harvest.” (MP, October 22, 2025)

Another farmer explained:

“Sometimes the harvest is used to repay debts, but when there are no obligations, we can receive cash directly from the collector.” (IR, October 22, 2025)

The findings suggest that economic dependence and established trust relationships play an important role in maintaining the conventional agricultural marketing system.

3. Price Determination and Bargaining Position

The study found that conventional farmers have limited influence in determining the selling price of their agricultural products. Market prices are generally dictated by broader market conditions and collector assessments rather than by farmers themselves.

One farmer stated:

“Prices depend on the market. Sometimes they go up, sometimes they go down.” (MP, October 22, 2025)

Another informant explained:

“Sometimes, if we have a close relationship with a collector, we can ask for a slightly higher price than the market rate.” (IR, October 22, 2025)

This indicates that bargaining power among conventional farmers remains relatively weak and is largely dependent on personal relationships rather than formal negotiation mechanisms.

4. Digital Literacy and Adoption Barriers

Although conventional farmers are familiar with social media platforms, most have not adopted them as marketing tools. Several obstacles were identified, including limited digital literacy, time constraints, delivery challenges, and low consumer interest in unbranded rice products.

According to one informant:

“Selling online is difficult, especially for local rice without a brand because it is less attractive in the market.” (MP, October 22, 2025)

Another farmer stated:

“My wife once tried selling through Facebook, but the buyers were mostly people we already knew, so sales were slow.” (IR, October 22, 2025)

These findings suggest that barriers to digital marketing adoption are not solely technological but also involve operational and market-related challenges.

Future Expectations

Despite existing limitations, conventional farmers expressed interest in adopting digital marketing if adequate support and training were provided.

One farmer stated:

“Of course we would be interested, but it is difficult to manage our time.” (MP, October 22, 2025)

Another explained:

“It would be helpful if the government provided training so that rice farmers could market their products without intermediaries.” (IR, October 22, 2025)

Overall, conventional farmers recognize the potential benefits of digital marketing but require institutional support to facilitate adoption.

Farmers Utilizing Marketing Media

1. Adoption of Marketing Media

The findings indicate that digital farmers adopted marketing media primarily to obtain higher selling prices and reduce dependence on collectors. However, digital marketing is generally used as a complementary strategy rather than a

complete replacement for conventional marketing.

One informant explained:

“Not all of our agricultural products are sold online. We only sell surplus rice reserves.” (KJ, October 23, 2025)

Similarly, another farmer stated:

“I have been selling through Facebook for about three years because I can obtain higher prices by selling directly without going through collectors.” (NR, October 23, 2025)

These findings demonstrate that economic incentives are the primary drivers behind the adoption of digital marketing practices.

2. Digital Marketing Practices

Digital farmers primarily utilize Facebook and WhatsApp as marketing platforms. These platforms are preferred because they are familiar, easy to access, and widely used within local communities.

As stated by the informants:

“I sell through Facebook and WhatsApp.” (KJ, October 23, 2025)

“Facebook and WhatsApp.” (NR, October 23, 2025)

The marketing process typically involves posting product information, communicating directly with potential buyers, negotiating prices, and arranging product delivery through personal networks.

3. Benefits of Digital Marketing

The use of marketing media has generated several benefits, particularly in increasing selling prices and expanding market access. Farmers reported that direct

sales allow them to capture a larger share of profits that would otherwise be absorbed by intermediaries.

One farmer explained:

“Selling online is neither easy nor difficult. Although the impact is not very significant, it helps cover household expenses.” (KJ, October 23, 2025)

Another informant stated:

“The selling price is higher compared to selling dried paddy to collectors because rice prices are much higher than paddy prices.” (NR, October 23, 2025)

These findings indicate that digital marketing contributes to improved income opportunities, particularly for small-scale sales.

4. Challenges in Digital Marketing

Despite its advantages, digital marketing presents several challenges. Farmers reported difficulties in selling large quantities of rice, limited distribution channels, and price bargaining from consumers.

According to one informant:

“The challenge arises when selling large quantities because it takes longer to find buyers.” (KJ, October 23, 2025)

Another farmer explained:

“The main issue is that buyers often request lower prices because the rice is not a branded product.” (NR, October 23, 2025)

These findings suggest that while digital marketing can improve profitability,

scalability remains a major challenge for agricultural producers.

5. Recommendations for Other Farmers

Digital farmers generally encourage other farmers to experiment with marketing media, particularly for a portion of their harvest, as a means of increasing income.

One informant suggested:

“Farmers should consider keeping one or two sacks of paddy, processing it themselves, and selling it through Facebook or WhatsApp.” (KJ, October 22, 2025)

Another farmer added:

“I think most farmers already know how to sell products online because many farmers have already used these platforms.” (NR, October 23, 2025)

The findings indicate that peer experiences and success stories may play an important role in encouraging wider adoption of digital marketing practices among farmers.

Rice Collectors in East Bulango District

1. Business and Distribution Model

The findings show that collectors play a central role in the agricultural value chain by purchasing paddy from farmers, processing it into rice, and distributing it to companies and local markets.

One collector explained:

“I buy paddy from farmers, whether it has been dried or not, process it into rice, and then sell it to companies or local markets according to quality standards and market prices.” (PM, October 27, 2025)

This finding highlights the importance of collectors as intermediaries who connect farmers with broader market networks.

2. Purchase Price Determination

Collectors determine purchasing prices based on several factors, including product quality, moisture content, transportation costs, and prevailing market conditions.

According to the collector:

“I usually consider moisture content, paddy quality, transportation costs, and market prices.” (PM, October 27, 2025)

The findings indicate that quality standards significantly influence price formation within the rice marketing chain.

3. Transaction Mechanisms

The study found that collectors utilize both cash and credit-based transaction systems. Cash transactions are common, while advance financing is often provided to trusted farmers.

As stated by the informant:

“Most transactions are conducted in cash at the time of purchase. However, regular partners may receive money in advance and repay it after the harvest.” (PM, October 27, 2025)

This practice strengthens long-term relationships between collectors and farmers while ensuring continuity of supply.

4. Perceptions of Digital Marketing

Interestingly, the collector did not perceive digital marketing as a threat. Instead, it was viewed as a complementary opportunity

that could coexist with conventional marketing channels.

The informant explained:

“I see it more as an opportunity than a threat because it helps farmers sell their surplus rice to their online networks.” (PM, October 27, 2025)

This finding suggests that digital and conventional marketing systems may operate simultaneously rather than competitively within the local agricultural economy.

5. Logistics and Storage Challenges

The biggest challenge identified by the collector relates to logistics and weather-related risks. Paddy quality is highly dependent on drying conditions, making weather fluctuations a major concern.

According to the collector:

“The biggest challenge is the weather. Sometimes paddy being dried suddenly gets caught in the rain, which reduces its quality.” (PM, October 27, 2025)

These findings indicate that logistical and environmental factors continue to influence the efficiency and profitability of agricultural marketing activities in East Bulango District.

DISCUSSION

The Role of Facebook as a Central Platform for Information Dissemination and Promotion of Agricultural Products

The findings indicate that Facebook serves as the primary digital platform utilized by farmers in East Bulango District to promote rice products and disseminate product

information. Farmers who adopted digital marketing consistently identified Facebook as their preferred platform because it is familiar, widely used within local communities, and capable of connecting sellers directly with potential buyers. The platform allows farmers to advertise available rice stocks, communicate product information, and reach consumers beyond their immediate social circles. The findings also reveal that Facebook is primarily used as a complementary marketing channel rather than a complete substitute for conventional marketing through collectors.

This finding is consistent with Onyemekonwu et al., who found that Facebook is one of the most widely utilized social media platforms for agricultural information dissemination because of its accessibility and ability to reach large audiences quickly [11]. The platform enables farmers to share product information, market updates, and agricultural activities while simultaneously interacting with consumers. In rural agricultural settings, Facebook functions not only as a promotional tool but also as a communication medium that strengthens information exchange among agricultural stakeholders.

Similarly, Al-Shaikh et al. reported that social media platforms, particularly Facebook, play a significant role in agricultural marketing by reducing information asymmetry between producers and consumers [4]. Through direct online promotion, farmers are able to present their products without relying entirely on intermediaries. This condition contributes to

greater market transparency and allows farmers to communicate product characteristics, availability, and prices directly to potential buyers.

The findings are further supported by Petrilák et al., who demonstrated that Facebook's visual and interactive features enhance the promotion of local agricultural products [12]. Photographs, promotional posts, and direct consumer engagement increase product visibility and consumer awareness. In the context of East Bulango District, Facebook provides farmers with a low-cost promotional medium that expands market reach while strengthening their ability to market agricultural products independently.

The Benefits of WhatsApp Messenger in Facilitating Direct Communication and Transactions

The study found that WhatsApp Messenger plays an important role in facilitating communication between farmers and consumers. Digital farmers reported using WhatsApp alongside Facebook to negotiate prices, respond to inquiries, confirm orders, and coordinate product delivery. Unlike Facebook, which functions primarily as a promotional platform, WhatsApp is used more intensively during the transaction process because it enables direct and real-time communication between sellers and buyers.

These findings align with Agnese et al., who found that WhatsApp supports efficient communication among agricultural stakeholders due to its flexibility and ease of use [13]. The platform enables rapid information exchange and facilitates decision-making processes related to agricultural

activities. The real-time communication features of WhatsApp make it particularly suitable for rural communities where immediate interaction is often required to coordinate business transactions and operational activities.

The findings are also consistent with Akhmadi et al., who reported that WhatsApp is an effective communication tool for marketing agricultural products because it is economical, user-friendly, and widely accessible [14]. Through WhatsApp, producers can negotiate directly with consumers without incurring substantial communication costs. This direct interaction reduces transaction barriers and enables faster responses to market demand, ultimately supporting more efficient marketing processes.

Furthermore, previous studies have highlighted the importance of WhatsApp in strengthening trust and information sharing among agricultural actors. Thakur and Chander found that WhatsApp facilitates the exchange of agricultural information through text, images, and multimedia content [15]. Likewise, Lutomia et al. emphasized that multimedia communication through WhatsApp enhances engagement and improves knowledge dissemination among rural communities [16]. These advantages are reflected in East Bulango District, where WhatsApp enables farmers to build stronger relationships with consumers and conduct transactions more efficiently.

Supporting and Inhibiting Factors in the Implementation of Agricultural Digital Marketing Strategies

The findings reveal that several factors support the implementation of digital marketing among rice farmers in East Bulango District. The primary supporting factors include the widespread availability of Facebook and WhatsApp, ease of platform use, opportunities to obtain higher selling prices, direct access to consumers, and the potential to reduce dependence on collectors. However, several inhibiting factors were also identified, including limited digital literacy, time constraints, logistical challenges, difficulties in marketing large quantities of rice, and consumer concerns regarding unbranded agricultural products.

These findings correspond with the observations of Onyemekonwu et al. and Al-Shaikh et al., who identified accessibility and user-friendliness as major factors encouraging farmers to adopt social media platforms [11][4]. The widespread use of Facebook and WhatsApp reduces technological barriers and allows farmers with limited technical expertise to participate in digital marketing activities. In addition, the familiar nature of these platforms facilitates adoption without requiring specialized training or significant financial investment.

The findings also support previous studies emphasizing the economic benefits of digital marketing. Iwuchukwu et al. highlighted that social media reduces communication costs and enables direct interaction between producers and consumers [17]. Similarly, Ramavhale et al. reported that digital platforms enhance market visibility and expand geographical market coverage [18]. These advantages are evident in East Bulango

District, where farmers who utilize digital marketing are able to achieve higher selling prices and increase their bargaining power by connecting directly with consumers.

Despite these benefits, the study identified several challenges that may limit the sustainability of digital marketing adoption. These findings are consistent with Jat et al., who reported that rural communities often face infrastructure limitations, including unstable internet connectivity and limited digital competencies [19]. Resource constraints also remain a significant issue, particularly for small-scale farmers who lack the financial and technical capacity to scale digital marketing efforts. Consequently, successful implementation of agricultural digital marketing strategies requires not only access to digital platforms but also institutional support in the form of digital literacy training, logistics improvements, and capacity-building programs tailored to rural agricultural communities.

CONCLUSION

This study concludes that Facebook and WhatsApp Messenger have become important digital marketing media for agricultural product marketing in East Bulango District, Bone Bolango Regency. Facebook functions as the primary platform for disseminating information and promoting agricultural products due to its broad reach, accessibility, and ability to facilitate direct interaction between farmers and consumers. Through Facebook, farmers are able to introduce their products, expand market

visibility, and reduce their reliance on conventional marketing channels.

WhatsApp Messenger complements Facebook by facilitating direct communication and fast-paced transactions. The platform enables farmers and consumers to negotiate prices, confirm orders, coordinate product delivery, and build trust through real-time interactions. As a result, digital marketing practices contribute to higher selling prices and provide additional income opportunities for farmers, particularly through direct sales of processed rice products.

The study also identifies several supporting factors that encourage the adoption of digital marketing, including the widespread use of Facebook and WhatsApp, ease of operation, low communication costs, and opportunities to reach consumers directly. However, the implementation of digital marketing strategies is constrained by several inhibiting factors, such as limited digital literacy, time limitations, logistical and distribution challenges, difficulties in marketing large quantities of rice, and the absence of strong product branding.

Overall, digital marketing media have demonstrated considerable potential to improve the efficiency and effectiveness of agricultural product marketing in rural areas. Therefore, greater support from government agencies, agricultural extension services, and other stakeholders is needed through digital literacy training, capacity-building programs, branding assistance, and infrastructure development to enhance the sustainability and wider adoption of digital marketing among farmers.

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