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Social Media Utilization As A Source Of Agricultural Information Among Members Of The Permata Hijau Millennial Farmer Group In Kupang Regency

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Abstract

Social media has become an additional channel through which farmers access, exchange, and discuss agricultural information. This study describes the pattern of social media utilization as a source of agricultural information and the application of information obtained through social media in farming activities among members of the Permata Hijau Millennial Farmer Group in Kupang Regency. The study used a descriptive quantitative approach supported by interviews, observation, and documentation. All 13 group members were included using a census or saturated sampling technique. Questionnaire data were measured using a Likert scale and analyzed through percentages and mean scores. Social media use frequency had a mean of 4.54 (very high), while duration had a mean of 3.31 (moderate). Agricultural information seeking recorded a mean of 3.92 (high), and interaction through social media recorded a mean of 3.78 (high). Platforms used included WhatsApp, YouTube, Facebook, TikTok, and Shopee; WhatsApp was reported by 6 respondents (46.15%). Application of agricultural information in farming activities had a mean of 3.63 (high). Examples included cultivation, irrigation management, fertilizer and pest-management considerations, marketing, and farm decision-making. One field finding was the group's independent installation of a drip-irrigation system after consulting a YouTube tutorial. The study is descriptive and does not establish a statistical causal effect of social media on productivity or income.

Keywords: social media; agricultural information; millennial farmers; farming activities; Kupang Regency.

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INTRODUCTION

Information and communication technologies have broadened the ways farmers obtain and exchange knowledge. Social media platforms can provide access to practical information, facilitate communication among farmers, and support the sharing of experiences related to cultivation, production inputs, pest management, and marketing. In agriculture, these platforms may complement, rather than replace, farmers' direct experience and agricultural extension services.

Social media use is not only a matter of access. Its usefulness also depends on what information farmers seek, how often they access it, whether they interact with other users, and how they assess and apply information in their own farming conditions. Information obtained online may require adaptation to local soil, water, crop, and resource conditions before it can be used in practice.

The Permata Hijau Millennial Farmer Group in Kupang Regency provides a context for examining these processes. Members use social media to obtain information related to farming activities, while the extent and pattern of use vary across indicators. Understanding these patterns can help describe the role of social media in supporting farmers' information needs without assuming that access automatically leads to increased productivity.

This study aims to (1) describe the pattern of social media utilization as a source of agricultural information among members of the Permata Hijau Millennial Farmer Group in Kupang Regency and (2) describe how information obtained through social media is applied in their farming activities.

METHODS

Research Location and Design

The study was conducted among members of the Permata Hijau Millennial Farmer Group in Noelbaki, Kupang Regency, East Nusa Tenggara, Indonesia. A descriptive quantitative approach was used, supported by interviews, observation, and documentation to provide context for interpreting questionnaire results.

Population and Respondents

The population consisted of 13 members of the farmer group. Because the population was small and all members were included, respondents were determined through a census or saturated sampling technique. The unit of analysis was each member of the group.

Data Collection and Analysis

Data were collected through a Likert-scale questionnaire, interviews, observation, and documentation. The questionnaire covered respondent characteristics, frequency

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and duration of social media use, platforms used, agricultural information seeking, interaction through social media, and application of agricultural information in farming activities. Data were analyzed descriptively using frequency distributions, percentages, and mean scores. The percentage was calculated using the following formula:

Percentage(P) = (frequency(f) / Number of respondents(N) × 100%.
The mean score was calculated using the following formula:
Average value ($\bar{x}$) = total score of respondents' answer (Σx) / Number of respondent (N)
Interviews and observations were used to provide additional context for interpreting respondents' reported practices. The descriptive design does not test causal relationships between social media use and productivity or income.

RESULTS AND DISCUSSION

Respondent Characteristics

The study involved 13 members of the Permata Hijau Millennial Farmer Group. Respondents were predominantly in the 20–29-year age group (8 people; 61.54%). Most had completed senior high school (12 people; 92.31%). In terms of farming experience, 6 respondents (46.15%) had been farming for five years or more. Nine respondents (69.23%) reported 3–5 family dependents, while 8 respondents (61.54%) had been members of the group for 3–4 years.

Characteristic	Category	Frequency	Percentage (%)
Age	20–29 years	8	61.54
	30–39 years	2	15.38
	40–49 years	2	15.38
	50 years and above	1	7.69
Education	Senior high school	12	92.31
	Bachelor's degree	1	7.69
Farming experience	1–2 years	3	23.08
	3–4 years	4	30.77
	5 years and above	6	46.15
Family dependents	0–2 people	3	23.08
	3–5 people	9	69.23
	6–7 people	1	7.69
Group membership	1–2 years	4	30.77
	3–4 years	8	61.54

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	5 years and above	1	7.69

Source: Primary data, processed from the study questionnaire (2026)

Pattern of Social Media Utilization

Social media use frequency received a mean score of 4.54, classified as very high. Seven respondents (53.85%) reported very frequent use, five (38.46%) reported frequent use, and one (7.69%) reported moderate use. No respondents fell into the rarely or very rarely categories. This indicates that social media is accessed regularly by members, although frequency alone does not indicate how long each access session lasts.

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Indicator	Category/platform	Frequency	Percentage/ Mean
Use frequency	Very frequent	7	53.85%
	Frequent	5	38.46%
	Moderate	1	7.69%
	Mean score	-	4.54 (Very high)
Duration	Low	2	15.38%
	Moderate	6	46.15%
	High	4	30.77%
	Very high	1	7.69%
	Mean score	-	3.31 (Moderate)
Platforms	WhatsApp	6	46.15%
	YouTube	4	30.77%
	Facebook	3	23.08%
	TikTok	2	15.38%
	Shopee	1	7.69%
Information seeking	Mean score	-	3.92
Interaction	Mean score	-	3.78

Source: Primary data, processed from the study questionnaire (2026).

***Note**: respondents could report more than one platform, so platform percentages do not sum to 100%. TikTok's percentage is calculated from 2 of 13 respondents (15.38%).*

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In contrast to frequency, duration had a mean of 3.31 and was classified as moderate. Six respondents (46.15%) were in the moderate category, four (30.77%) in the high category, two (15.38%) in the low category, and one (7.69%) in the very high category. This difference shows that frequent access does not necessarily mean that members spend long periods searching for agricultural information during each session.

WhatsApp was the most commonly reported platform, followed by YouTube and Facebook. WhatsApp may support communication and information exchange among group members, while YouTube can provide visual demonstrations of farming practices. TikTok and Shopee were also reported, although by fewer respondents. Because multiple platforms could be selected, the percentages represent the share of respondents who reported each platform rather than mutually exclusive categories.

Agricultural information seeking had a mean score of 3.92 (high), indicating that members generally use social media to search for information relevant to their farming needs. Interaction through social media had a mean of 3.78 (high). The interaction indicator includes asking questions, discussing farming, sharing information, communicating with group members, and receiving information from other farmers. Taken together, the results describe social media as a channel for both individual information seeking and peer communication.

Application of Agricultural Information in Farming Activities

The application of agricultural information obtained through social media recorded a mean score of 3.63 and was classified as high. Based on the distribution of respondents, 3 people (23.08%) were in the very high category, 4 (30.77%) in the high category, and 6 (46.15%) in the moderate category. No respondents were classified as low or very low.

Application category	Frequency (people)	Percentage (%)
Very high	3	23.08
High	4	30.77
Moderate	6	46.15
Low	0	0.00
Very low	0	0.00
Total	13	100.00
Mean score	3.63	High

Source: Primary data, processed from the study questionnaire (2026).

Information obtained through social media was applied across several aspects of farming, including cultivation and irrigation management, consideration of fertilizer use

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and pest and disease control, marketing of agricultural products, and farm decision-making. One practical example identified in the field was the group's independent installation of a drip-irrigation system after members consulted a YouTube tutorial. This illustrates how online content can serve as a practical reference that is interpreted and applied by farmers.

The findings also indicate that information from social media is not necessarily adopted without evaluation. Members consider their own experience and the actual conditions of their farming activities when deciding whether and how to apply information. This adjustment is important because online instructions may not fully reflect local production conditions, available resources, or the specific needs of a farm.

Discussion and Study Contribution

The findings present a connected picture of social media use: members access platforms frequently, search for agricultural information, interact with other users, and report applying some of the information in their farming activities. However, the indicators vary. Frequency was very high, duration was moderate, and information seeking and interaction were high. Therefore, social media utilization should not be described through a single indicator alone.

The study's contribution is contextual and descriptive. It combines frequency, duration, platform choice, information seeking, interaction, and application within one farmer group in Kupang Regency. The irrigation example provides a concrete illustration of how a digital tutorial can be used as a reference for a practical farming activity. Nevertheless, the results do not establish that social media use caused an increase in productivity, income, or production efficiency, because those outcomes were not tested statistically.

CONCLUSION

Social media is used by members of the Permata Hijau Millennial Farmer Group as an additional source of agricultural information. Frequency of use was very high (mean 4.54), duration was moderate (mean 3.31), agricultural information seeking was high (mean 3.92), and interaction through social media was high (mean 3.78). WhatsApp was the most commonly reported platform (6 respondents; 46.15%), followed by YouTube (4; 30.77%) and Facebook (3; 23.08%).

The application of agricultural information in farming activities was classified as high, with a mean score of 3.63. Application included cultivation and irrigation management, fertilizer and pest-management considerations, marketing, and farm decision-making. The example of independent drip-irrigation installation using a YouTube tutorial shows the practical role social media can play as an information reference.

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Information is still considered alongside farmers' experience and local conditions. Because this research is descriptive, it does not claim a statistically demonstrated effect of social media on productivity or income.

The group is encouraged to continue sharing relevant information and to assess online recommendations before applying them. Agricultural extension officers may complement digital information with field-based guidance. Future studies could examine platform-specific usefulness and test relationships between social media utilization and measurable farm outcomes.

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