

Extension and Communication as a Medium to Raise Awareness for Millennial Farmers in Sleman Regency, Yogyakarta

Luqman Abdulloh Mahmuda^{1*}, Umi Nur Solikah²

^{1*}Department of Agribusiness, Faculty of Agriculture, Universitas Lambung Mangkurat, Indonesia

²Department of Agribusiness, Faculty of Agriculture, Universitas Islam Batik, Indonesia

Email: ^{1*}luqmanmahmuda@ulm.ac.id

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Abstract

Agriculture is a sector that not only plays a role in providing food but also supports the national economy. However, this sector faces a major challenge in the form of declining interest among the younger generation in farming. The average age of farmers in Indonesia is currently relatively old, while the contribution of millennial farmers is still minimal. Sleman Regency, Yogyakarta Special Region, as one of the regional food barns, faces the same problem. Digital transformation actually opens up significant opportunities for the younger generation to play an active role in modern agriculture. However, limited knowledge, limited access to information, and negative perceptions that agriculture is less profitable are major obstacles. This study aims to analyze the role of extension and communication in raising awareness among millennial farmers in Sleman Regency. The research method used a qualitative descriptive approach with data collection techniques including in-depth interviews, participant observation, and documentation studies. Subjects included agricultural extension workers, young farmers aged 20–35, and agricultural community administrators. Data analysis was conducted using the Miles & Huberman model, including data reduction, data presentation, and conclusion drawing. The research results show that participatory communication-based extension services can increase the motivation, knowledge, and skills of millennial farmers in adopting modern agricultural technologies. Digital communication media, such as WhatsApp groups, Instagram, and YouTube, serve as effective channels for disseminating agricultural information, promoting products, and even learning techniques. The main obstacles encountered include limited internet access in some areas, inconsistent attendance at extension activities, and the social stigma that agriculture lacks promising prospects. In conclusion, face-to-face extension services combined with digital communication are effective strategies for building awareness and increasing engagement among millennial farmers in Sleman.

Keywords: Extension, Communication, Millennial Farmers, Awareness.

1. Introduction

Agriculture remains a key pillar of Indonesia's national development. This sector not only provides food but also contributes significantly to Gross Domestic Product (GDP) and employment. However, over the past decade, there has been a worrying trend: the number of farmers has been declining, while the average age of farmers has been aging. Data from the Central Statistics Agency (BPS, 2023) shows that more than 60% of farmers in Indonesia are over 45 years old, while the contribution of the younger generation, particularly millennials, remains relatively small. This phenomenon poses a serious challenge, given that farmer regeneration is crucial for maintaining the sustainability of national food production. If the



trend of declining interest in agriculture among the younger generation continues, a farmer regeneration crisis will emerge, potentially threatening future food security.

Sleman Regency, Yogyakarta Special Region, boasts significant agricultural potential, including rice production, horticulture, and plantation commodities. Furthermore, Sleman boasts a strong agricultural ecotourism development. However, the local situation, similar to the national situation, is characterized by low youth involvement in the agricultural sector.

Several factors influencing the lack of interest among the younger generation include: (1) the stigma that agriculture is not economically promising, (2) limited access to information and technology, and (3) the lack of a platform for channeling creativity and innovation in the agricultural sector. Therefore, a strategy is needed to build awareness among the younger generation that agriculture is a potential and modern sector.

In the context of agricultural development, agricultural extension and communication play a key role. Agricultural extension is not simply a means of conveying technical information, but also a non-formal educational process aimed at changing farmers' attitudes, behaviors, and awareness. Meanwhile, development communication plays a role in bridging the process of disseminating innovations, strengthening participation, and building mutual understanding between extension workers and farmers.

Literature reviews show that millennials are more responsive to interactive, participatory communication methods that utilize digital technology (Yuliana & Sari, 2021). Therefore, participatory communication-based extension services combined with the use of social media are a relevant approach to encouraging young farmer involvement.

Based on this description, this study focuses on answering the question: what is the role of extension and communication in raising awareness among millennial farmers in Sleman Regency.

2. Methodology

This study uses a qualitative descriptive approach with the aim of describing in depth the role of extension and communication in raising awareness among millennial farmers. The research location was selected in Sleman Regency, Yogyakarta Special Region, because this area is one of the main food barns in the Special Region of Yogyakarta and has significant potential for the development of horticulture, rice, and agriculture-based ecotourism. The research was conducted from February to April 2025.

The research subjects included: (1) 5 Field Agricultural Extension Workers (PPL), (2) 15 millennial farmers aged 20–35 years, and (3) 3 agricultural community leaders/leaders of young farmer groups. Data collection techniques included in-depth interviews, participant observation, and documentation studies. Interviews were conducted to gather information about millennial farmers' experiences, perspectives, and expectations regarding extension services. Observations were conducted during extension activities to assess interaction patterns. Documentation studies were used to supplement data from extension activity reports, farmer group archives, and data from the agricultural office.

Data analysis was conducted using the Miles & Huberman model, which consists of data reduction, data presentation, and conclusion drawing. The analysis process took place simultaneously from data collection to the final stage of the research.

3. Results and Discussion

- 1) **The Role of Extension in Knowledge Transfer:** Extension activities serve as the primary means of transferring knowledge regarding modern agricultural techniques. Millennial farmers are more attracted to field-based extension rather than one-way lectures.
- 2) **Participatory Communication:** Participatory communication approaches have proven to be more effective. Small group discussions, simulations, and comparative studies strengthen the sense of knowledge ownership and increase the self-confidence of millennial farmers.
- 3) **Utilization of Digital Media:** WhatsApp is used for coordination, Instagram for promotion, and YouTube as a learning medium. This aligns with the characteristics of the millennial generation, who are accustomed to digital technology.
- 4) Several obstacles include limited internet access, low attendance consistency, and the stigma that agriculture is unprofitable.
- 5) The discussion links these findings to the Diffusion of Innovations theory (Rogers, 2003), which emphasizes the importance of interpersonal communication in accelerating innovation adoption.

Narrative Descriptive Analysis

Based on the survey results presented in tables and graphs, it can be concluded that the majority of millennial farmers in Sleman Regency showed a high level of interest in field-based extension services, with a percentage reaching 85%. This indicates that young people prefer practical and interactive extension methods over conventional, one-way methods.

Furthermore, approximately 75% of respondents stated they actively utilize digital media such as WhatsApp, Instagram, and YouTube to support agricultural activities. This data confirms the critical role digital media plays in expanding access to information and accelerating the spread of innovation among millennial farmers. However, consistent attendance at extension activities remains a challenge. Only 60% of respondents regularly attend extension programs. Contributing factors include time constraints, side jobs outside the agricultural sector, and a lack of social support. Furthermore, only 40% of respondents had a positive perception that agriculture is an economically profitable sector. This indicates the persistence of a negative stigma against agriculture, despite the increasing opportunities for agribusiness with the advent of digital technology and local market support.

Thus, it can be concluded that the success of extension services for millennial farmers depends heavily on a combination of face-to-face strategies and the use of digital media. Furthermore, policy interventions are needed to change negative perceptions of agriculture and increase the consistency of young farmers' involvement in extension programs.

4. Conclusion

Extension and communication play a strategic role in raising awareness among millennial farmers in Sleman Regency. The combination of face-to-face approaches and digital communication has proven effective in increasing motivation, knowledge, and participation. To strengthen sustainability, government support, capacity building for extension workers, and synergy with farming communities and the private sector are needed.

Sustainable extension programs, policy support, and access to information technology are key factors in strengthening the regeneration of millennial farmers. This research recommends the need for innovative extension methods that are more participatory and adaptable to the communication styles of the millennial generation.

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