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Collective Farmer Reaction To Innovations In The Maros Regency Millennial Farmer Program

Monalisa Ibrahim[1], Hasniati[1], Gita Susanti[1], Muh. Tang Abdullah[1]
[1]Doctoral Program in Public Administration, Faculty of Social and Political Sciences, Hasanuddin University, Makassar
Corresponding author: Monalisa Ibrahim

Abstract: *This study examines farmers' collective reactions to innovations within the Maros Regency millennial farmer program. Innovation in the public sector is understood as the application of new ideas to create public value, which in the agricultural context aims to increase the independence and productivity of young farmers. A qualitative approach was used to in-depth explore the social dynamics, perceptions, and collective reactions to the implemented innovations. The results indicate that the program implementation has successfully encouraged the adoption of digital technology, the formation of cooperatives, and inter-institutional partnerships, marking the transformation of farmers from traditional producers to modern agribusiness actors. The collective reactions of millennial farmers are reflected in their active involvement in training, the implementation of marketing innovations, and the formation of learning communities. This study emphasizes the importance of community participation, institutional flexibility, and experiential learning as key factors for successful implementation. Furthermore, this study enriches Choi & Chang's (2009) framework with the local Indonesian context, while also formulating an adaptive and sustainable model for implementing community-based innovation. In conclusion, the success of policy innovations in this program is not only influenced by administrative structures but also by community social dynamics and inclusive institutional support. A holistic approach is crucial in promoting sustainable agricultural transformation that is responsive to local needs.*
Keywords: *Public Policy Innovation, Millennial Farmers, Collective Response, Farming Communities, Participatory Approach*

1. INTRODUCTION

According to Junginger (2013), Innovation in public policy is the process of creating new, more effective and efficient solutions to address social challenges through transformative policies, programs, and bureaucratic practices. Suryani et al. (2024) define public innovation as the application of new ideas to create public value through better services, more adaptive policies, or increased governance effectiveness. Innovation in the public sector is not only about technology but can also encompass organizational innovation, processes, partnerships, and ways of thinking.

According to Agger & Sørensen (2018), public innovation is often complex because it must address the needs of multiple stakeholders and operate within regulatory and bureaucratic constraints. Therefore, public policy innovation must prioritize citizen participation, inter-institutional collaboration, and an evidence-based approach. Furthermore, Oke (2007) distinguishes three types of innovation in public policy: (1) incremental innovation, which is the gradual improvement of existing policies; (2) radical innovation, which is a major change to established structures and processes; and (3) paradigmatic innovation, which is a fundamental shift in the governance paradigm.

Mintrom & Luetjens (2017), using the public value framework, emphasized that public policy innovations must be able to create public value, gain legitimacy from stakeholders, and have operational capabilities to implement. In this context, innovation is judged not only by its novelty but also by its ability to solve public problems effectively and sustainably.

From the perspective of the diffusion of innovation theory proposed by Kapsali (2011), the success of policy innovation also depends on how quickly it is adopted by implementing actors and the public. This adoption is influenced by perceptions of relative advantage, alignment with existing values, complexity, ease of trial and error, and observability of results.

Thus, innovation in public policy is not simply about introducing novelty but also requires policy design that is inclusive, responsive, and capable of creating value that is widely perceived by the public (Uyarra et al., 2019). This innovation must also be supported by adaptive institutions and implementing actors who have a positive collective perception of change.

Implementation studies are studies of policy studies that focus on the process of implementing a policy.

In practice, policy implementation is a complex process, often politically charged, with the intervention of various interests. To illustrate the complexity of the implementation process, a statement by a policy studies expert, it is enough to create a program and general policy that looks good on paper. It is even more difficult to formulate it in words and slogans that sound pleasing to the ears of leaders and voters who listen to it. And it is even more difficult to implement it in a way that satisfies everyone, including those they consider clients."

Policy implementation, in principle, is a way for a policy to achieve its objectives. There are two options: direct implementation in the form of a program or through the formulation of a derivative policy derived from the public policy, often referred to as an explanatory public policy, often referred to as an Implementing Regulation (Muhiddin, 2017).

Riant Alamsyah (2016) further explains policies that can be implemented directly without requiring derivative policies, such as Presidential Decrees, Presidential Instructions, Ministerial Decrees, Regional Head Decrees, Department Head Decrees, etc., and policies that require explanatory public policies, such as Laws and Regional Regulations.

Tthe implementation of a basic policy decision, usually in the form of a law but also in the form of important executive orders or decisions or judicial decisions. Typically, such decisions identify the problem to be addressed, explicitly state the goals or objectives to be achieved, and define the various ways to structure or regulate the implementation process."

Meanwhile, Van Meter and Van Horn define policy implementation as "actions undertaken by individuals, governmental or private officials or groups directed toward achieving the goals outlined in the policy decision."

Effective implementation is crucial for organizational change and innovation. Klein and Sorra (Klein & Knight, 2005), organizational analysts, identify implementation failure, not innovation failure, as the cause of many organizations' inability to achieve the desired benefits from their adopted innovations. Therefore, models and metrics are needed to determine the extent to which an innovation has been implemented effectively. Measuring the level of implementation provides information about the acceptance and use of an innovation, as well as any changes users may have made to the original innovation (Chaudoir et al., 2013).

Collective Perception and Reaction to Innovation: Collective perception of a policy is a form of shared meaning formed through communication, experience, and social norms. Weick (1995) states that the sensemaking process forms the basis for collective reactions.

Collective reactions can take the form of active acceptance, resistance, or adaptation. The innovation adoption process occurs in five stages: knowledge, persuasion, decision, implementation, and confirmation. The success of an innovation depends heavily on the extent to which positive perceptions are developed and collective reactions are facilitated by the social and institutional environment.

The collective reaction dimension represents the actualization of the formed collective perceptions. illustrates that innovation acceptance is influenced by beliefs in the innovation's benefits and the extent to which it aligns with existing values and needs.

Within the conceptual framework of Choi and Chang collective reactions serve as an indicator of societal readiness to adopt and support innovation. In the case of the Millennial Farmer Program, this reaction can be realized through active involvement in training, willingness to apply modern agricultural technology, and the formation of a network of young farmer communities.

2. METHOD

The approach used in this research is a qualitative one. This approach was chosen based on the research objective of exploring, describing, and analyzing events related to the implementation of innovations in the millennial farmer program in Maros Regency. A qualitative approach was deemed the most appropriate method because it allows researchers to gain an in-depth understanding of the context and dynamics involved in the phenomenon.

In this context, the qualitative approach is crucial for exploring the perceptions, views, and experiences of stakeholders involved in the implementation of innovations in the millennial farmer program. Furthermore, this approach facilitates capturing complex and contextual nuances that may be difficult to measure quantitatively. By focusing on obtaining objective and accurate data, qualitative methods allow

the authors to detail the differences, dynamics, and impacts of public service innovations in greater depth. Therefore, a qualitative approach was the appropriate choice for this research, as it provides a robust framework for understanding the implementation of innovations in the millennial farmer program in the city.

This research focuses on farmers' collective reactions to innovations in the millennial farmer program in Maros Regency. This research was conducted to explore aspects of the millennial farmer program, with an emphasis on the application of the farmer institutional empowerment model. The primary consideration of this research is the complexity of the institutional issues of farmer empowerment, which have been less responsive to the millennial farmer program in Maros Regency.

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In this study, the informants were the actors involved in program implementation within the agricultural program development policy network in Maros Regency. The researchers identified key informants based on the information obtained, including the actors directly involved in the development and implementation of the millennial farmer program in Maros Regency. The data sources in this study included primary and secondary data. Primary data is data obtained directly from the original source (not through intermediaries). Primary data can include the opinions of individuals (individuals) or groups, observations of a physical object, events, or activities, and test results. These primary data sources include institutions or actors involved in the innovation implementation process.

Secondary data, on the other hand, is data obtained in a finished form or in the form of published data. Secondary data is data obtained indirectly through intermediaries (obtained and recorded by other parties). Secondary data generally consists of evidence, records, or historical reports compiled in archives (documentary data), both published and unpublished. Secondary data is used to support or interpret primary data to understand problems and provide solutions. Data collection techniques are the most strategic step in research because the primary goal is to obtain data. Without understanding data collection techniques, researchers will not obtain data that meets established data standards. Data collection techniques used include observation, in-depth interviews, and documentation.

Research design is a logical structure that connects empirical data to research questions, which then aims to draw conclusions based on the data (Yin, 2000). A research design is determined by the research approach used, whether combining qualitative or quantitative approaches. This study uses a qualitative approach, which is descriptive in nature, aimed at understanding and describing the reality of the events being studied, thus facilitating the author's objective understanding of and understanding the development of superior regional commodities.

Qualitative research aims to understand phenomena experienced by research subjects, such as behavior, perceptions, motivations, actions, etc., holistically and by describing them verbally and in a specific, natural context, utilizing various scientific methods (Grotjahn, 1991).

Data Analysis Techniques

Data analysis is the process of systematically organizing and tracking interview data, field notes, and other materials so that researchers can present their findings. To explain the policy-making process and innovation implementation, and analyze it using the Resource Dependency Model, this study uses the Saunders et al. (2018) model, which states that qualitative activities are interactive and ongoing until

complete, resulting in data saturation. There are four activities in data analysis:

Data Collection

Data collection is carried out using the methods used: observation, interviews, and documentation. All of these data types share one key aspect in common: their analysis relies primarily on the researcher's integrative and interpretive skills. Interpretation is necessary because the collected data is rarely numerical, but rather detailed and lengthy.

Data Reduction

Data reduction is the process of selecting, focusing on simplifying, abstracting, and transforming raw data emerging from field notes. In data reduction, researchers sharpen, classify, direct, discard unnecessary information, and organize data in such a way that conclusions can be drawn and verified.

Data Presentation

Data presentation is the presentation of a structured set of information that allows for drawing conclusions and taking action. Data presentation can be in the form of brief descriptions, charts, relationships between categories, and the like. Presenting data makes it easier to understand what is happening and plan further work based on what has been previously understood. In data presentation, researchers collect structured information to provide a basis for discussion and drawing conclusions. This presentation then combines the structured information into a coherent form, making it easier to observe what is happening and then determine correct conclusions.

Conclusion Drawing or Verification

Conclusion drawing is an activity that takes place within a complete configuration. Conclusions are also verified by researchers throughout the research process. This verification may be as brief as a rethinking of the researcher's thoughts during a review of field notes or reviewing a copy of a finding stored in another data set.

3. FINDINGS AND DISCUSSIONS

Millennial Farmer Program

The Millennial Farmer Program in Maros Regency is a strategic program implemented by the Department of Agriculture and Food Security for the 2020–2025 period to address the challenges of farmer regeneration and strengthen innovation-based food security. This program is designed to develop a generation of young farmers who are technology-adaptive, market-oriented, and possess an entrepreneurial spirit in agribusiness.

In its implementation, the Millennial Farmer Program targets rural youth of productive age interested in the agricultural sector, either as direct farmers, farm managers, or agricultural innovators. Support provided includes technical training, business guidance, extension assistance, access to capital, and digital marketing facilitation through online platforms.

In Maros Regency, this program not only emphasizes individual capacity building but also encourages the formation of young farmer institutions such as millennial farmer groups and technology-based cooperatives. This is done to build a connected, collaborative, and sustainable agricultural ecosystem.

The program also encourages the use of precision farming technology, the use of agricultural machinery (alsintan), and the integration of digitalization in farm management. Several innovations that have been implemented include the use of farmer financial recording applications, marketing through agricultural e-commerce, and the use of drip irrigation systems and simple IoT-based greenhouses.

Tangible benefits from the implementation of this program include increased agricultural yields, production efficiency, increased incomes for young farmers, and the growth of local agribusiness entrepreneurial initiatives. This success is further strengthened by synergy with national programs such as the Ministry of Agriculture's Youth Entrepreneurship and Employment Support Services (YESS), which simultaneously strengthens the competencies and entrepreneurial networks of young farmers. Thus, the Maros Regency Millennial Farmer Program is not only a farmer regeneration movement but also a driver of structural transformation of the agricultural sector toward a more innovative, inclusive, and highly competitive direction. The sustainability of this program depends heavily on cross-sector synergy, regional institutional support, and consistent mentoring and ongoing evaluation.

Collective Reaction to Innovation

This dimension reflects the concrete response and willingness of millennial farmers to accept and adopt

agricultural innovations offered by the program. This reaction is not merely passive in the form of accepting ideas, but also reflects active involvement in implementing activities and integrating innovations into daily agricultural practices.

Table 1. Dimensions of Innovation Implementation

Dimension	Subdimension	Data Reduction	Research Findings
Innovation Implementation	Short-Term Implementation Effectiveness	Innovation has been applied in market practices through digital technology.	The use of e-commerce in marketing harvests demonstrates the integration of innovation into practical activities.
		Farmers access digital platforms for product promotion and sales.	Applications such as marketplaces are actively used to directly market products.
Innovation Implementation	Long-Term Implementation Effectiveness	The program fosters independence and sustainability in farming enterprises.	Farmers are starting to show independence in farming activities, reducing reliance on external aid.
		Farmer groups are building independent cooperatives and partnership networks.	A stable and sustainable distribution network and agribusiness system has been established.

The implementation of innovations among millennial farmers in Maros Regency has demonstrated significant practical application. In the short term, innovations introduced through training and mentoring programs have been adopted by farmers, particularly in the area of marketing agricultural products using digital technology. For example, the "Sipatuo" and "Makkajoange" farmer groups have successfully utilized local e-commerce platforms and social media to sell horticultural and processed agricultural products.

A farmer from the "Sipatuo" group stated:

"Now we sell our crops through Instagram and WhatsApp. They sell faster than going to the market."

This reflects the short-term effectiveness of innovation, namely the integration of digital technology that can shorten the distribution chain and increase farmer profits. Furthermore, easy access to price and consumer information allows farmers to be more independent in determining marketing strategies.

In the long term, research shows a trend toward growing independence and sustainability in farming businesses. Several groups have formed millennial farmer cooperatives and partnered with agricultural stores, financial institutions, and even universities to provide product research assistance.

The Program Manager stated:

"There are already groups that are no longer dependent on aid. They manage everything from seeds to marketing themselves."

This process demonstrates the transformation of farmers' roles from mere producers to autonomous agribusiness actors. Improved managerial capacity, access to technology, and network support are the foundation for the sustainability of the innovations implemented. However, challenges remain, such as a lack of supporting infrastructure and limited digital literacy in some groups. Nevertheless, farmers' enthusiasm and adaptability are key drivers of successful implementation. Therefore, the authors conclude that the innovation implementation dimension reflects how innovation is actually implemented in the field and internalized in farming life, both pragmatically and strategically.

DISCUSSION

Collective Farmer Response Dimension

Collective response is the active phase when farmers begin to demonstrate real involvement in the program. Millennial farmers have begun to take the initiative to adopt new technologies, form discussion groups, and utilize social media to share agricultural information. This finding reflects a high level of enthusiasm for change and a collective awareness of the importance of collaboration.

From a theoretical perspective, this suggests that once a positive perception is formed, collective response

becomes the momentum for behavioral change. Farmers are no longer the objects of the program but transform into subjects of change. This indicates the social readiness of the farming community to accept and implement innovation.

The novelty of this finding lies in the pattern of reactions that demonstrates a shift in values from traditional agriculture to a modern entrepreneurial mindset based on social networks and technological experimentation, creating the foundation for a sustainable culture of innovation.

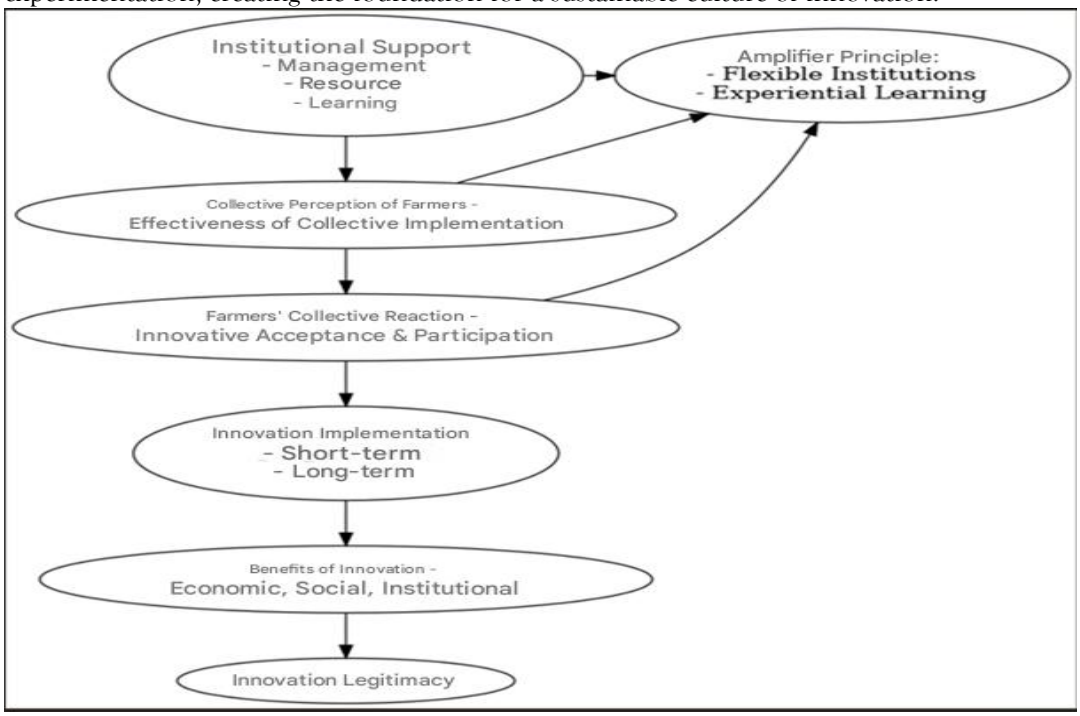

Figure 1. Innovation Implementation Model in the Millennial Farmer Program in Maros Regency

The Millennial Farmer Program in Maros Regency has demonstrated that, despite challenges, the potential for community-based transformation is enormous if supported by participatory policies and inclusive institutions. This research not only confirms the validity of Setiyawan et al. (2025) framework but also provides conceptual and practical updates. Conceptually, this framework has been enriched with the local Indonesian context, adding elements of institutional flexibility and experiential learning. Practically, this research formulates a participatory, adaptive, and sustainability-oriented implementation model for community-based agricultural innovation, thus serving as a reference for similar programs in other regions.

4. CONCLUSION

Overall, the successful implementation of innovations within the Millennial Farmer Program in Maros Regency depends not only on administrative structures but also heavily on social dynamics at the community level. However, institutional strengthening and implementation strategies that are more adaptive to local dynamics are still needed. The enthusiasm of millennial farmers in experimenting and adapting to new approaches demonstrates a high level of social readiness and a desire to innovate in agriculture. Therefore, a holistic approach that combines institutional strengths and active community participation is key to achieving sustainable agricultural transformation.

Suggestion

Based on research and analysis of the dimensions of innovation implementation, several strategic recommendations can be used as a reference for increasing the effectiveness of innovation programs in the agricultural sector. First, institutional support should be strengthened through increased cross-sectoral coordination and closer synergy between local governments, agricultural extension workers, universities, and market players. Furthermore, it is crucial to provide sustainable financing schemes and incentives for active farmer groups as a tangible form of support for the sustainability of innovation. Second, training design should be directed toward an experience-based approach, such as field practice (demonstration plots), sharing success stories, and developing modules tailored to local needs. The involvement of young

farmers as facilitators and mentors also needs to be optimized to foster regeneration and knowledge transfer between farmer groups. Third, the development of inclusive collective structures should be encouraged through the establishment of cooperatives and inter-farmer learning communities that can strengthen networks and solidarity. Furthermore, providing regular dialogue between farmers and policymakers is crucial to ensure that aspirations and needs on the ground are accommodated in the policy formulation process. Fourth, the innovation evaluation system must be responsive and adaptive, developing monitoring indicators based on impact and the level of community involvement. Participatory evaluation is also a crucial approach in adapting policy direction to evolving local dynamics. Finally, community-based innovation implementation models proven effective in one region can be replicated in other areas by adapting to local social, cultural, and geographic conditions to maintain their relevance and effectiveness

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