

Evaluation of Innovation in the Development of Agricultural Product Processing Industry Programs in Bantaeng Regency

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ABSTRACT

Innovation evaluation consists of a systematic investigation to look at the various objectives of activities and programs, such as enabling learning, development, improvement and capacity, the importance of policies and programs and supporting oversight. This research method uses a qualitative approach and case studies to analyze and explain phenomena which focuses on how to evaluate the innovation of the agricultural product processing industry development program. Data collection is done by conducting interviews and observations. Data processing and analysis techniques are carried out in three stages, namely: data reduction, presentation and drawing conclusions. Informants in this case are as follows: a). The research is as follows: Head of the Bantaeng Regency Agriculture Office. b). Secretary of the Bantaeng Regency Agriculture Office. c). Head of the Facilities and Infrastructure Division of the Bantaeng Regency Agriculture Service. d). CBO (Community Base Organization). The results showed that the framework used to measure the evaluation of innovation in the development of agricultural product industry programs in terms of program development, network expansion, and comprehensive system improvement was effective. Then the involvement of youth groups in socialization and counseling to women farmer groups was not involved. The new approach in evaluating the innovation of the agricultural product processing industry development program in Bantaeng Regency in terms of an economic approach and a social approach has been effective.

Introduction

The integration of regional innovation development nationally is still a problem in itself. As pointed out by Taufik (2007) who argues that the problem of innovation development policy that is faced nationally is related to the limited understanding of policy making from stakeholders about the innovation system. There is no integrated development of the innovation system in development. Innovation policies, which essentially require sectoral policy coherence, national-regional policies, and innovation system governance will not be effective if the policies of various development and service sectors are still partial, fragmented, inconsistent and even contradict each other.

As a developing country, Indonesia must of course innovate to catch up with other countries. Nowadays, it is undeniable that the willingness to innovate and the ability to innovate in a bureaucratic environment is still felt to be low. From the 2020 Global Innovation Index (GII) data, Indonesia is ranked 87th out of 131 countries with a score of 26.50 the same as the previous ranking but the score decreased to 29.72 in 2019. In line with the GII Global Competitiveness report released by the World Economic Forum in 2020, Indonesia is ranked 50th out of 141 countries in the world with a score of 64.6, this ranking when compared to Singapore, Malaysia and Thailand, Indonesia is in the lower rank of these countries.

The success of local government innovations can be measured in line with Government Regulation Number 6 of 2008 concerning Evaluation of Regional Government Operators. Local government innovation is able to encourage competitiveness between regions and regions. Successful innovation is one indicator of the performance and success of local governments in realizing good governance in Indonesia. The innovation capability of the local government in the agricultural sector must be observed for its implementation and sustainability because it is directly affected by increasing productivity and community welfare.

The Bantaeng Regency Government continues to innovate in the agricultural sector because it has the largest contribution to Regional Original Income (PAD), and can increase per capita and community welfare. Local governments continue to excite farmers through their own nurseries. Onion seeds, potatoes, corn, fertilizers, water for installation into gardens are prepared by the government so that water requirements can be regulated throughout the year. In 2013 the Bantaeng Regency Government won the Innovative Government Award (IGA) for its success in implementing a village-based agricultural program to realize the beginning of The New Bantaeng which was launched in 2008, but experienced various obstacles, especially the conventional farmer mindset.

One of the breakthroughs and innovations from the bantaeng district government in the agricultural sector is the development of the agricultural product processing industry. This innovation is a program that has been going on for 3 years. This program is one of the programs that is expected to be able to support agricultural products through industrial processes, considering the habits of farmer groups when the harvest arrives they sell the agricultural products without processing them into a product first so that the economic value of the agricultural commodities increases significantly.

Agricultural commodities in Bantaeng Regency, if managed optimally, will produce processed products that can be marketed so that local revenue (PAD) can increase and improve the welfare of farmers. In line with the results of the author's observations, several problems emerged, including the first, namely the large number of agricultural products that have not been processed through industrial processes, while the opportunities for agricultural commodities that can be processed through industrial processes are relatively large, secondly, the absence of BPOM certification on processed agricultural products makes it difficult to market. Processed products, the three novelties in the marketing process that were not

developed by the program implementing stakeholders so that this made the products produced not widely known by consumers.

The above description attracts attention in the study of public administration. For this reason, it is used as an object in this study to answer the research question of how?evaluation of the innovation of the agricultural product processing industry development program in Bantaeng Regency?

Literature Review

Definition of Innovation

According to Metcalf (1991) innovation is a system that brings together different institutions that contribute jointly and individually to the development and diffusion of new technologies and provide a framework within which the government forms and implements policies to influence the innovation process. Thus the innovation system is a system of interrelated institutions to create, store, and transfer (transfer) knowledge, skills that determine new technologies. Innovation will not be able to thrive in conditions of the status quo.

Halverson et. Al, (2005) stated that in studying innovation in the public sector, one must move from a narrow interpretation of innovation because it will make it difficult to measure value in the public sector.

In the public sector, Innovation and Policy are two terms that complement each other. Innovation is present as a new product and replaces the old way. Similarly, the nature of the policies that exist to replace the old policies. This means that every policy must in principle contain new innovations.

Successful innovation according to Mulgan and Alburri (2003) is the establishment and implementation of new processes, products, services and methods that can result in significant improvements in efficiency, effectiveness or output quality in service delivery. If this definition is associated with a number of definitions from other experts, it can be concluded that innovation indicates a process that has a broad scope and a long process, as also stated by Leat Better in IdeA (2005) that the innovation process takes a long time, and is interactive and social. Which will involve many people who have different talents, skills and resources together.

Innovations in Public Administration

Innovation in its development is more widely used in business organizations and in information technology. Because the competition is very tight. But in its development, innovation is then also used in public organizations.

The initial thinking of public administration put a lot of emphasis on the scientific side and universal principles to achieve efficiency and effectiveness. This is inseparable from the influence of management science and public administration which can be applied in all types of organizations. These early principles are known as the old public administration. In this perspective, the bureaucracy represented

by public administrators has a central role in the progress of government. So that they play more of a role in the form of small kings who lead. This idiom by Nicholas Henry (2004) seems to be a justification for a democratic society, namely with the term big democracy, big bureaucracy. Nicholas Henry in his early writings in the book *Public Administration and Public Affairs* (2004), said:

Although quantitative data shows that bureaucracy is (1) an unwelcome part of the United States, (2) many citizens are anti-bureaucratic performance, but strangely, the growth of the bureaucracy greatly extols, both in terms of quantity and budget spent. In addition, the bureaucracy has enormous power (Henry, 2014).

Innovation Stage

The innovation process experienced by the organization is different from the process that occurs individually. According to Rogers (2003) public sector organizations in adopting product innovations will go through two stages. *First*, Initiation or pioneering. The pioneering stage consists of agenda setting and matching phases. This is the initial stage of recognizing the situation and understanding the problems that occur in the organization. At the agenda setting stage, the process of identifying and prioritizing needs and problems is carried out. Furthermore, a search is carried out in the organizational environment to determine the place where the innovation will be applied. This stage often takes a very long time. At this stage, it is also usually recognized that there is a performance gap or performance gap. This gap is what triggers the process of finding innovation in the organization. *Second*, Implementation or implementation. At this stage, pioneering has resulted in a decision to seek and accept innovations that are considered to be able to solve organizational problems. This implementation stage consists of redefinition, clarification and routinization phases. In the redefinition phase, all adopted innovations begin to lose their foreign character. Innovation has gone through the re-invention process, so that it is closer in accommodating the needs of the organization. In this phase, both innovation and organization redefine each other and undergo a process of change to adapt to each other. pioneering has resulted in a decision to seek and accept innovations that are considered to be able to solve organizational problems. This implementation stage consists of redefinition, clarification and routinization phases. In the redefinition phase, all adopted innovations begin to lose their foreign character. Innovation has gone through the re-invention process, so that it is closer in accommodating the needs of the organization. In this phase, both innovation and organization redefine each other and undergo a process of change to adapt to each other.

David (1987) classifies the stages of innovation, namely innovation design, innovation implementation and innovation evaluation. Innovation evaluation is a condition where we see weaknesses or opportunities in the innovation, and produce programs that are redesigned to meet this urgency. Innovation can fail for a number of reasons, often when the technology is there, but the institutional conditions are not friendly.

Innovation Evaluation Concept

Innovation evaluation consists of a systematic investigation to look at the various objectives of activities and programs, such as enabling learning, development, improvement and capacity, the importance of policies and programs and supporting oversight. Over time, various approaches and perspectives have emerged to inform evaluation practice, and in the end contextual considerations, goals, principles, ethics and professionalism guide evaluation approaches and methods (Mark in Smith 2000).

Practice-oriented and conceptual literature suggests innovation evaluation to bring together actors from different walks of life to create solutions for measuring and assessing innovation. The pressing question is how one evaluates an ongoing innovation so that its progress can be most effectively managed and the end result obtained quickly. Innovation evaluation refers to a system in assessing performance to achieve the specified goals, in the category of ability to improve processes that are currently running.

The innovation evaluation should identify situations where real impacts have occurred and why. Innovation is born in the form of a new approach or program to social problems. Smith (2000) emphasizes the importance of a systems perspective with respect to innovation evaluation which never just happens but is always in context:

- a) Structured relationship
- b) Network
- c) Infrastructure
- d) The wider social and economic context

This systems approach is based on looking at the evaluation of innovations for monitoring purposes, especially programs and projects.

Westley and Antadze (2012) put an emphasis on the theory and practice of innovation evaluation in looking at program, product, personnel and/or organizational development where the evaluator is part of a team in a process of continuous improvement, adaptation and intentional change. The perspective focus is divided into two, namely, summative evaluation and formative evaluation. **Summative evaluation** namely determining whether the program achieves the desired results and whether the program can be continued or terminated, while formative evaluation sees the implementation and process of ongoing activities requiring improvement or renewal of the program as well as refinement of models to achieve effectiveness and achievement of program

objectives that are still ongoing. . Organizations tend to rely on both evaluation approaches in observing a program.

In analyzing the evaluation, especially the context of innovation using the concept of *adaptive cycle*. Where in this concept uses 4 indicators in evaluating policy or program innovations. The innovation evaluation indicators are opportunities, dynamics, new ideas and approaches.

Research Methods

In this research, the innovation evaluation of the agricultural product processing industry development program uses a qualitative approach with the reason that researchers can analyze and explain phenomena which focuses on how to evaluate innovation from the agricultural product processing industry development program in Bantaeng Regency at the Bantaeng Regency Agriculture Office.

To clarify the limitations of this study, the researcher focuses this research on evaluation of the innovation of the agricultural product processing industry development program at the Bantaeng Regency Agriculture Service. For this reason, the researchers used the concept of formative evaluation by Westley and Antadze (2012) to see the implementation and process of ongoing program activities. In this analysis, it can be seen whether the program needs improvement or renewal and refinement of the model with an adaptive cycle approach that emphasizes 4 indicators, namely Opportunities, Dynamics, New Ideas and Approaches.

To obtain data for research purposes, it is necessary to have informants who are related to the problem being studied. In this study, researchers obtained informants through key persons, where what is meant here are formal figures and informal figures who can provide information about the situation and condition of the research background. Informants that the author means are:

- a) Head of the Bantaeng Regency Agriculture Service
- b) Secretary of the Bantaeng Regency Agriculture Service
- c) Head of Facilities and Infrastructure of the Bantaeng Regency Agriculture Service
- d) CBO (Community Base Organization)

In this study, the types of data collected were primary data and secondary data. To collect the data, the researcher used several data collection instruments, namely interviews, observations, and literature review. The data analysis carried out in this study consisted of three interrelated sub-processes (Miles & Huberman, 1984, 1994); data reduction, data presentation, and conclusion/verification.

Results and Discussion

Evaluation of Agricultural Product Processing Industry Development Program Innovation At the Bantaeng Regency Agriculture Service

The agricultural product processing industry development program is one of the flagship programs that is expected to support agricultural products through industrial processes in the agricultural service. With the latest breakthrough, this program aims to maintain and regulate prices when agricultural commodities experience harvest season or even overproduction. By going through the industrial process, it is hoped that it will produce processed products that will indirectly increase the economic activity of the community.

Cycle of Opportunities in Formative Evaluation of the Adaptive Cycle Approach

Opportunities in question are opportunities that arise when innovation takes place. Usually these opportunities are in the form of program development, network expansion or improvement of a more comprehensive system. Program development can be seen from what the latest methods are used as well as patterns or approaches in developing a program. The expansion of the network can be seen from the actors who are involved in running the existing program. A more comprehensive system improvement can be seen from the availability of facilities and infrastructure used to support the success of the existing program.

Table 1. Opportunity Cycle in Program Innovation Evaluation Agricultural Product Processing Industry Development

No.	Aspect	Analysis Results
1	Program Development	Has been done or made the same day named "Bantaeng Coffee Festival" where this method or method is considered more effective to develop agricultural industry product processing programs that focus on coffee
2	Network Expansion	The government feels with everything The limitations that exist are that each actor feels the need to involve farmer groups and youth groups which are then called CBO (Community Based Organization), the involvement of 2 important actors to run the agricultural industry product processing program
3	Comprehensive System Repair	Provision of adequate facilities and infrastructure complete to the tools for making coffee and packaging equipment that are ready to be marketed, facilitated by the government

Source: 2021 Data Reduction Results

Cycle Dynamics in Formative Evaluation of the Adaptive Cycle Approach

The dynamics in question are interactions in two or more individuals or organizations that occur when innovation is taking place. This dynamic includes the interaction of innovation implementers, target objects and other stakeholders related to this innovation. The interaction of implementing innovations is important in the implementation of the agricultural product processing industry development program. The link between the target object and stakeholder interaction requires the parties involved to maintain good communication and relationships. Coffee is one of the commodities that attracts the attention of the government and local residents so that it can be produced into marketable products. In the process of making coffee to packaging and product marketing, it requires consistent two-way communication between the parties concerned, both the government, farmer groups and youth groups. There needs to be special attention from the government for follow-up follow-up related to programs that are both run, especially the attention of the government.

Table 2. Cycle Dynamics in Program Innovation Evaluation Agricultural Product Processing Industry Development

No.	Aspect	Analysis Results
1	Innovation Executor Interaction	Bantaeng Regency Agriculture Service Government conduct socialization and counseling to women farmer groups in Bantaeng Regency.
2	Target Object	The number of MSMEs in Bantaeng is increasing so that it can help increase the income of local communities, especially women farmer groups. The interaction carried out by the government of the agricultural service has revived the cottage industry to become MSMEs.
3	Stakeholders	Involvement of youth groups as activists the coffee processing industry is not involved in the extension and socialization carried out by the government agricultural service.

Source: 2021 Data Reduction Results

The Idea Cycle in Formative Evaluation of the Adaptive Cycle Approach

The idea includes the offer of new concepts that arise from the implementation of the innovation itself. Both in terms of changes to continue to innovate, as well as ideas to modify ongoing innovations. An idea is a solution step

in developing a program. In relation to the agricultural product industry development program that focuses on coffee processing, the government and actors who play a role in this case are CBOs (community based organizations), namely farmer groups and youth groups facilitate the shortcomings of the current program. The feasibility of the products made also determines the marketing process to consumers. Products that are halal-certified and have a BPOM label will make a product more of a high value.

Table 3. Idea Cycle in Program Innovation Evaluation Agricultural Product Processing Industry Development

No.	Aspect	Analysis Results
1	Modify Innovation	In modifying coffee products that have been marketed to consumers who have not been certified halal and BPOM.

Source: 2021 Data Reduction Results

A New Cycle Approach in Formative Evaluation of the Adaptive Cycle Approach

Approach can be interpreted as a starting point or point of view used by innovators or stakeholders in carrying out existing programs. The new approach usually appears to make improvements to the less than optimal innovation that is taking place. This new approach includes an economic approach, a social approach, and other types of approaches deemed relevant. Improvements to the less than optimal innovation that takes place must be followed up immediately by the stakeholders or actors who play a role in it. The actors involved must always adapt to environmental changes and be able to follow existing trends so that the programs or policies that have been made can run well. In measuring the new approach in the agricultural product industry development program.

Table 4 Cycle of New Approaches in Evaluation of Program Innovation Agricultural Product Processing Industry Development

No.	Aspect	Analysis Results
1	Economic	The sales method was also renewed by government and youth groups, where at the beginning of this program the sales method was carried out only by selling at coffee centers. However, a new approach was taken, namely selling coffee through the internet, especially on Instagram and Facebook, this was done to increase consumer interest or follow sales trends over time.

No.	Aspect	Analysis Results
2	Social Approach	The government together with youth groups and farmer groups together re-evaluate and update starting from the coffee-making process, namely the focus is more on packaging to the marketing process that takes a new approach or new method.

Conclusion

Based on the results of research that has been carried out by researchers, using the concept of formative evaluation by Westley and Antadze (2012), it can be concluded that: Opportunities in evaluating the innovation of the agricultural product processing industry development program in Bantaeng Regency in terms of program development, network expansion, and improvement of comprehensive systems have been effective. Dinamika explained that the government agricultural service facilitated socialization and counseling to women farmer groups, so that the number of MSMEs, youth group involvement in socialization and counseling to women farmer groups was not involved. Ide explained that, in developing the agricultural product processing industry in Bantaeng Regency, in terms of modifying the innovation of coffee products that have been marketed to consumers, they have not been certified halal and BPOM.

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