

## IMPLEMENTATION OF INNOVATION IN MILLENNIAL AGRICULTURAL PROGRAMS: A LITERATURE REVIEW

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**Abstract.** *This research aims to examine various important aspects in implementing the millennial farmer innovation program in Maros Regency, including institutional aspects, employee engagement, collective involvement, and the long-term effects of the program. This research adopts a qualitative approach, namely interviewing, observation and documentation techniques. The results of this research show that the agricultural production index is increasing even though digitalization and the interest of the millennial generation is still low. Millennial farmers need digital assistance for marketing via social media, which has proven effective in marketing export products. The development of agrotourism increases farmers' income and overcomes price and marketing problems. The success of agricultural innovation depends on the proper implementation and adaptation of technology at various levels.*

**Keywords:** *Agrotourism Development; Agricultural Innovation Success; Digital Marketing Assistance; Millennial Farmers*

### 1. INTRODUCTION

The current innovation trend has become an absolute requirement, especially at the government level where the ability to innovate, especially policy innovation, is an integral part of the ability to optimize national and local resource potential. Bureaucratic creativity is also key in supporting the ability to innovate (Kardiat, 2023; Brookfield Institute, 2018). In the context of the public sector, innovation can also produce new policies that aim to overcome various public policy problems, with the hope that innovations implemented by central and regional governments can improve the delivery of public services and policies to the community.

A paradigm shift in public policy that is responsive to societal developments now requires ongoing interactions, processes and activities between society and the government. This is expected to be able to answer the dynamics and demands of the public interest, where the public sector as the main policy actor must accurately understand what and how public needs and interests must be carried out (Heri, Mochamad Zakaria, 2017). The increasing level of competition, coupled with rapid changes, challenges the field of technology and innovation is considered a major challenge. Therefore, currently innovation has a significant impact on the conditions of public organizations and the creativity where innovation originates, both from individuals and organizations. So, implementing innovation is an important part for public and private organizations (Abdullah, 2016).

The dynamics of rapid environmental change, marked by advances in science and technology, demand high-quality human resources who are always willing to learn and develop. Success today is measured by the ability to innovate. Innovation itself is an effort to maintain the existence of an organization in its environment. Innovation in organizations is crucial to improving the achievement of goals and targets more effectively and efficiently. Innovation in organizations is expected to be able to respond to environmental complexity and dynamics of change, especially in intense competition and create resources for organizational excellence (Hill & Hupe, 2013).

The development of innovation is currently one of the best alternatives in providing public services and public policy now and in the future. It aims to explore innovation in public policy from a conceptual and empirical perspective, accompanied by various

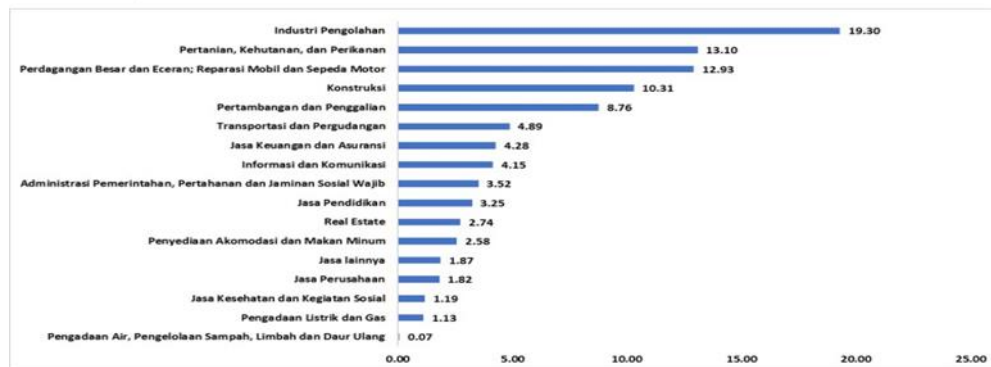
examples of implementing innovative-based public policy (Dong et al., 2008). By understanding that innovation can come from various things such as ideas, products, technological information, institutions, behavior, values, and new practices or objects that can be perceived as something new for individuals or society, innovation needs to go through a modification process. stages in an organization that are implemented in a routine to achieve work targets and achievements as a result of organizational performance (Wellstead & Nguyen, 2020).

Implementing innovation in public policy studies involves developing and implementing new, reactive approaches to address problems that arise in society (Sururi, 2017). This requires exploring alternatives by presenting strategies, approaches, combining new technologies, and involving various stakeholders to produce innovative ideas that are responsive to developments. Therefore, innovation is very important to ensure that policy implementation can run effectively and be responsive to meeting the growing needs of society (Brookfield Institute, 2018).

The innovation process in policy implementation is phenomenological, non-linear, and not interconnected (Dougherty & Hardy, 1996). The complexity faced in public organizations can be seen from lack of resources, lack of skills, lack of confidence in participating in formal training related to innovation, thus requiring flexibility, and lack of systemic standards (Findlay et al., 2000). To achieve innovation implementation, a new paradigm is needed to increase organizational competitiveness in its environment (Amabile, Hadley, & Kramer, 2002) (Asriadi et al., 2019).

The public policy studies of Grindle (1980) and Quade (1984) provide reasons for the importance of policy implementation, where there are configurations and synergies in determining the success of policy implementation, including: policy, organization and policy environment. By choosing the right policy, it is hoped that the individuals, groups or communities involved can participate and provide optimal contributions to achieve the stated goals. Therefore, the implementation of innovation focuses on utilizing the resources owned by the organization to jointly achieve goals with stakeholders.

Figure 1. Average PDAM Distribution (Percent) for The 2018-2022 Period



Quarter II

Source: Central Statistics Agency

Based on this ratio figures, agricultural households during the 2019-2021 period tend to increase, from a Gini ratio value of 0.306 in 2019 to 0.311 in 2021 (Figure 2). Even though in 2019 and 2020 the Gini ratio was stable at 0.306, this increase in the Gini ratio reflects an increase in inequality farmer income in 2021. The highest income inequality occurs in the Java region compared to areas outside Java.

Maros Regency, located in the province of South Sulawesi in Indonesia. In agriculture Kab. Maros has enormous potential in the agricultural sector. Since 2008 the agricultural sector has increased. Based on the data obtained, the dominant commodities developed include: lowland rice occupying a production area of 76.50 tons. The agricultural sector is the dominant sector for South Sulawesi because it is a

supplier of rice in the Eastern Region of Indonesia (KTI) and one of the National Food Granaries, has a rice harvest area of 991,935.52 ha with rice production of 5,152,871.43 tons (BPS South Sulawesi, 2022). Most of the rice production in South Sulawesi Province is produced by lowland rice.

District agricultural production. Maros, with an average surplus of 113 tons per year, is one of the buffers in South Sulawesi province in fulfilling consumption. In supporting agricultural production, the Regency Government continues to strive to improve the standard of living and make farmers prosperous. The government through the Ministry of Agriculture in collaboration with the International Found for Agricultural Development (IFAD) has planned the YESS (Youth Entrepreneurship and Employment Support Services) Program. The YESS program has been implemented in four provinces, namely West Java, East Java, South Kalimantan and South Sulawesi as a pilot project for developing entrepreneurship and employment for the younger generation in the agricultural sector.

The YESS program is designed to produce young rural entrepreneurs and produce competent workers in the agricultural sector. Through the Youth Entrepreneurship Program and Employment Support Service (YESS), Ministry of Agriculture creates strong and quality millennial entrepreneurs. This program is aimed at young people, especially in rural areas, to develop the economy through entrepreneurship and increase job opportunities. In the 2019-2023 period, the implementation of the YESS Program targets 32,000 young people in rural areas.

Based on the background described previously, millennial farmers in the YESS program have shown positive things in attracting the interest of the younger generation to enter the world of agriculture through the application of technology and innovation in increasing the productivity and welfare of millennial farmers, but in its implementation there are still several challenges that need to be met. especially in strengthening farmer institutions to ensure the success of millennial farmers and the engagement of farmers to play a greater role in decisions regarding the implementation of institutions/institutions. Based on the theoretical approach previously discovered above, namely the innovation performance of millennial farmers in the YESS program and the implementation of implementation in institutions/institutions involving the implementation of norms that are binding on millennial farmers will lead to the success of policy innovation for millennial farmers in the YESS program.

## **2. LITERATURE REVIEW**

Innovation literally comes from English, innovation which means change. Innovation is also defined by Makmur and Rohana Tahier (2015: 9) as "a process of human activity or thought to discover something new related to input, process and output, and can provide benefits in human life". The translation of this definition is as stated by Makmur and Rohana Tahier (2015: 9): "innovation related to input is defined as patterns of human thought or ideas that contribute to new discoveries. Meanwhile, in the sense of process, many are oriented towards methods, techniques or ways of working in order to produce something new. Meanwhile, the meaning of output is aimed at the results that have been achieved, especially the use of thought patterns and work methods or techniques that have been carried out. Whether input, process or output, within the innovation framework, everything is a unified whole that cannot be separated one by one.

The connection between the concept of innovation in public administration as stated by Makmur and Rohana Tahier (2015: 79) is that "the concept of administrative innovation is an argument with deep reasoning and based on one person's rational thinking which other people have not had time to think about in order to carry out activities carried out in the form of cooperation to achieve goals effectively and efficiently." The goal to be achieved from innovation in administration is a change in the

situation or atmosphere of the collaboration process, especially regarding the areas of work that must be completed, work processes that are not always monotonous and boring, the availability of adequate work facilities, as well as improving the professional quality of human resources. involved in the cooperation process (Makmur and Rohana Tahier (2015: 79). The spirit of regional autonomy which is based on Law Number 32 of 2004 continues to be oriented towards broad autonomy, down to the smallest level of government organizations. This is proven by the emergence of the Law. Law Number 6 of 2014 concerning Villages which indirectly actually encourages autonomy at the village level, as the smallest government organization in Indonesia.

In line with this, local governments are required to carry out reforms in various sectors as a step to address the increasingly complex demands of society. Innovation is a necessity that must be carried out so that the existence of the government becomes meaningful in the eyes of its people (van Vierlo, 1996). Innovation is not only important for improving service quality but also to improve government capabilities (Nutt and Backoff, 1993; Miller and Friesen, 1983; Osborne and Gaebler, 1992; Morris and Jones, 1999). Rondinelli in Kurniasih (2010: 154) defines decentralization as the transfer of planning, decision making, administrative authority from the central government to its field organizations, local administrative units, semi-autonomous and parastatal organizations, local government, or non-governmental organizations.

Improvements to the public sector in Indonesia need to be carried out comprehensively, fundamentally and continuously. In principle, improvements in the public sector are a systematic and planned effort to realize the mainstreaming of public interests. Comprehensive reform of the public sector should involve more components of the nation, in other words the concept of society and the people should begin to move to the public concept. In the public concept there are at least two things that need to be shared together, namely the existence of a dialogical mechanism (a community can be included in the public category when they use rational, peaceful and constructive dialogue to produce a joint decision) and the existence of decision making (decision making is experienced as a form of active involvement of all community components) (Wicaksono, 2014: ix).

Peter Drucker (1986), believes that every organization needs a core competency, namely innovation. Innovation drives organizational growth, increases future success, and is the engine that enables organizations to survive vulnerability. Innovation is an action that provides innovation power resources including the following: a. Innovation is creating new ideas and getting them to work. b. Innovation is not science or technology.

Innovation creates new wealth rather than knowledge. d. Innovation is turning an idea into a business success. e. Innovation is a change in the economic or social environment. f. Innovation must be user focused. g. Innovation = invention + exploitation h. Exploitation = everything involved in implementation or commercialization i. Innovation is a new ability to create prosperity. Innovation includes the following: a. Innovation is creating new ideas and getting them to work. b. Innovation is not science or technology. c. Innovation creates new wealth rather than knowledge. d. Innovation is turning an idea into a business success. e. Innovation is a change in the economic or social environment. f. Innovation must be user focused. g. Innovation = invention + exploitation h. Exploitation = everything involved in implementation or commercialization i. Innovation is a newness in the sense of not having been done before, but with a little bit of slack. j. Innovation = invention + implementation + commercialization. k. Every invention is (a) new combination of b preexisting knowledge which (c) satisfies some want (Gaynor, 2002).

Drucker (1986) stated that specifically, systematic innovation means monitoring seven sources of innovation opportunities. The first four sources are found within organizations, both businesses and community service institutions, or within organizations. Furthermore, the second three sources are changes that occur outside

the organization. Furthermore, there are five principles that can foster innovation from within an individual or organization. The five principles in question include a) Innovation that has a purpose and is systematic, starting with analyzing sources of innovative opportunities b) Innovation that is conceptual and perceptual. The necessity of innovation is to go out to look, ask and listen, pay attention to customers, users, study their expectations, assess their needs c) To be effective an innovation must be simple and must be focused d) Effective innovation starts small, first requires limited funds, minimal people, and only a small and limited market e) A successful innovation must lead to leadership in a particular environment.

Regional government's ability to innovate is supported by competent human resources in carrying out their duties as state officials who have a moral responsibility to provide the best service (prime) for society. According to Papasi (1994), the mindset and action patterns of an ideal development executive are: 1. Holistic-Integralistic, namely the attitudes and behavior of executives who have broad and far-sighted views. This kind of attitude is absolutely necessary in connection with the executive's duties as a determinant of various organizational policies. 2. Proactive Anticipatory, is the attitude and behavior of an active executive who is not a spectator in dealing with existing developments, but rather collaborates with other parties and as an executive decision maker is participative and facilitative. 3. Creative-Innovative, is the attitude and behavior of executives who do not only do routine things. He is a person who has a broad view but is also realistic. He has quite a lot of ideas, can appear at any time and is special, can develop concepts quickly. 4. Moral-Responsibility, is the attitude and behavior of executives required to achieve effectiveness in program implementation. 5. Organizer- Professional, is the attitude and behavior of executives who have expertise in organizing people, three tasks, organizational facilities and infrastructure as well as external factors of the organization. Basically, an organizer is also a communicator, initiator, contributor and evaluator.

Innovation in organizations does not occur randomly but in a pattern. There are three patterns of innovation in organizations. The first pattern, innovation programmed through research and product or service development activities. The second pattern, unprogrammed innovation occurs when inefficiency appears in the organization or when the available resources are abundant beyond what is needed and then innovation emerges. The third pattern innovation occurs when the organization is under pressure, such as a crisis so that There must be action to overcome it and then innovation emerges. Thus, innovation can be developed proactively in the organization or occur due to pressure from the environment (Zaltman et al, 1973).

The existence of regional governments everywhere is intended to produce output. The output of regional government administration is in the form of accelerating community welfare which is achieved through community empowerment, community participation, and increasing regional competitiveness. Therefore, institutional innovation or innovation in the organizational field is important in the practice of regional government administration. There are three innovations that need to be carried out in local government organizations, namely: (1) innovation in the organizational structure so that it is able to produce output that is relevant to community needs; innovation to reduce the influence of red tape (bureaucratic obstacles); and (3) innovation in decision making.

Innovation in government or the public sector is not easy to do. Borins (2001) said there are three barriers to innovation. The first arises from within the bureaucracy itself, namely an attitude that is skeptical and reluctant to change; The second comes from the political environment. Organizational demands sometimes cannot be met because of an uncondusive political environment such as additional budgets, regulations that hinder and group interests. The third obstacle comes from the environment outside the public sector, such as public doubts about the effectiveness of a program, difficulty implementing the program, especially in determining the target group. Public sector

innovation often faces resistance because it will not only affect standard operating procedures but will also affect existing relationship patterns and power structures. Drucker (1994) observed that innovation in public sector organizations is often hampered by three factors. First, dependence on the central budget; second, the mission of the public sector is to ensure a fair allocation of resources, not provide services according to market desires; and thirdly, the main goal of public sector management is to do things well according to applicable moral standards, not to prioritize goals according to the economic scale. Therefore, public sector innovation is often thought to erode values

The fundamental principle that becomes the reference for the pattern of action of public organizations is justice.

Even though there are obstacles, according to Drucker's (1994) observations, the public sector should learn from innovators, in order to be able to innovate, they must see the changes that are taking place in the social, technological, economic and demographic fields because every change always brings new opportunities. Once again Drucker emphasized that building entrepreneurial management in public organizations is the most difficult and challenging political task. According to Rogers (2003), the innovation decision process consists of 5 stages, namely (a) knowledge stage, (b) persuasion stage, (c) decision stage, (d) implementation stage, and (e) confirmation stage.

Article 389 regulates the protection of regional governments, where in the case of implementing innovations that have become Regional Government policy and the innovation does not achieve the targets that have been set, state civil servants cannot be punished. Thus, there are advantages as well as weaknesses in terms of regulations that enable state civil servants to continue to innovate. However, what is clear is that ASN's innovation mentality is still a major problem that also needs to be resolved.

With the description above, the prospective writer concludes that innovation is an idea, thought, thought, breakthrough that has elements of novelty, benefits, can be adopted/replicated, sustainable and does not conflict with applicable laws and regulations. An idea, thought, thought, breakthrough can be said to be an innovation if it has elements of novelty, benefits, can be adopted/replicated, is sustainable and does not conflict with applicable laws and regulations.

Talking about innovation in state administration, we cannot directly provide an understanding based on the meaning of words. If we look at the concept of the meaning of the words State administration innovation, it can be defined as an idea, thought, thought, breakthrough that has elements of novelty and benefits that are capable of creating added value in one or more aspects and/or processes of State administration. If state administration innovation can be equated with public sector innovation, then Albury (2003) once stated that innovation in the public sector is new ideas that work.

To be more precise, "successful innovation is the creation and implementation of new processes, products, services and delivery methods that produce significant improvements in output efficiency, effectiveness or quality. In the field of public administration, Dwiyanto (2013) revealed that innovation in the field of public administration is any form of transformation new ideas and knowledge that are able to create added value in one or more aspects and/or processes of public administration

It can be said that state administrative innovation is the process of thinking about and implementing a policy by public interest administrators to fulfill public interests that has elements of novelty and usefulness.

## *2.1 Innovation Implementation*

Implementation of innovation is seen as one of the stages of diffusion, and can be clearly distinguished from adoption (the decision to purchase or use the innovation) and routinization (fitting the innovation into the daily work of the organization) (Rogers) (in

Real and Poole, 2005). Implementation is an important follow-up to adoption which ultimately determines the success of innovation.

Steelman (2010) in his implementation study looked at top-down and bottom-up, where academics have laid down the contingency theory of implementation where both work simultaneously from the bottom to the top, and from the top to the bottom. In his book *Implementing Innovation* (Steelman, 2010) at least states that "policy innovation focuses on how innovations appear, are chosen, or are diffused, while the complexities of implementing, evaluating, or terminating innovations have received significantly less attention. In much of the policy literature, innovations begin when new ideas are placed on the agenda. This can occur when a new policy idea coincides with a favorable political environment and an appropriately framed problem definition."

From this understanding, it is known that innovation policy focuses on how innovations emerge, are selected, then spread, while the complexity of implementing, evaluating, or terminating innovations receives less attention. In various literature, innovation begins when new ideas are placed on an agenda. New policies that are in line with the political environment and defined problems will then be framed appropriately.

In a top-down view, the implementation of innovative policies/programs functions to intensively align existing formal structures. Meanwhile, in the bottom-up view, implementation is understood as an interrelated ability to identify factors that are considered relevant to a particular innovation which can then see the opportunities for success or failure of the innovation.

Meanwhile, Real, K and Poole (2005), define implementation as a process that determines the extent to which innovation is used as intended from the start. This approach considers innovation as something fixed that does not change during the implementation process, and focuses attention on implementation stages or other aspects of the process that can build compliance, commitment to use, and positive beliefs about the innovation. Innovation in this view emphasizes design planning and implementation of implementation programs as a key factor in effective implementation.

### *2.2.2 Innovation Implementation Factors*

In his book, Steelman (2010) states that in implementing innovation there are ideal conditions that encourage innovation from time to time. This condition is illustrated by several interrelated factors or activities. The factors in question are individual factors, structural factors and cultural factors. The following factors influence the implementation of innovation: (1) Individual Factors, individual factors include motivation, norms and harmony. Motivation is an indicator used to see how each stakeholder is motivated to carry out the program. Motivation takes into account what drives an entrepreneur or leader's policy to make a change. Norms and harmony are the work of actors to predispose to change in order to preserve social norms and harmony. These norms and harmony also take into account the individual's desire to establish good working relationships. Conformity or harmony between the dominant values in a government and the lower ones will influence individual support for the innovation provided in addition to conformity implies that individual values are in organizational culture; (2) Structural factors, including rules and communication, incentives, openness and resistance. Rules and communication stem from top-down implementation theory, suggesting that structures in ongoing innovation must provide clear administrative support for innovative practices. If the structure provides the right incentives, then opportunities for innovative practices will be better or easier to implement over time. Openness shows that political structures must be open to change and open up opportunities so that all political structures are not the same, whether individuals or groups. Rejection in this case will overcome the power dynamics, interest groups and policy monopolies in the structure that can hinder change; (3) Cultural factors, including shocks, groupings and recognition. Shock refers to a catalytic event

that provides an opportunity to recall something that is likely to result in change. Grouping implies a broader definition of the problem, forcing immediate action (alternative solutions). Lastly, a confession proposed by sociological institutions, suggests that innovative practices can be adopted and sustained because they validate the organization or agency within the broader culture in which the organization operates.

### *2.2.3 Criteria for Successful Innovation Implementation*

Effective implementation is critical to organizational change and innovation. Klein and Sorra (in Real and Poole: 2005), organizational analysts identify implementation failure, not innovation failure, as the cause of the inability of many organizations to achieve the desired benefits from the innovations they adopt. Therefore, models and metrics are needed to determine the extent to which an innovation has been implemented effectively. Measuring the level of implementation produces information regarding the acceptance and use of an innovation as well as any changes that users may have made to the original innovation (Beyer et al in Real and Poole, 2005).

Real and Poole's (2005) innovation success criteria will test the conceptualization and measurement of innovation implementation in organizational research in various studies. Additionally, this review identifies and evaluates different approaches to defining and measuring the implementation of innovative products to contribute to the future. Measuring innovation implementation is relevant because it assesses the impact of a new technology, program, or process only meaningful if we know the extent to which the innovation is actually used according to plan. Real and Poole (2005) stated that there are at least 5 (five) indicators for measuring innovation criteria, namely as follows.

Use is meaningful as a measure to capture the extent to which innovation is actually used in practice. One approach is to assess usage globally. Technological innovations often have many components, features, or functions, which can be used to construct a measure of usage level by counting the number of active users or the extent to which they are used. Another approach to measuring the level of use according to DeSanctis and Poole (1994) is the conception of appropriation. Appropriation refers to the process by which users incorporate technology or procedures into their work and interaction processes. In this process users utilize the structure in the innovation to activate and limit their actions (way of use/work mechanism). Usage can also be measured in terms of the length of time the innovation has been used in the organization. The implication is that the longer a technology or program is implemented, the more likely the organization is to overcome the problem and the more successful the innovation.

Performance. The performance of an innovation is often adopted to improve some aspect of organizational performance and can be used as a criterion for successful innovation implementation. Real and Poole (2005) quote Grover, Jeong, Kettinger and Teng (1995), that to measure the performance of an innovation the focus is on cost reduction, cycle time (time reduction), and defects reduction (reduction of document errors). Apart from that, performance improvements such as training or increasing employee knowledge are related to the innovation that is being implemented.

User Attitude and Beliefs. An innovation can also be said to be successfully implemented if organizational members form good attitudes and beliefs about it. Because the impact of an innovation depends on the willingness to use it, favorable attitudes and beliefs are likely to increase the benefits obtained. Conversely, beneficial innovations that have been implemented well are likely to foster favorable attitudes and beliefs. Real and Poole (2005) stated several types of beliefs and attitudes used to measure implementation, including influence on innovation, importance of innovation, user satisfaction, user acceptance, and user commitment. In addition, an adaptation of the theory of planned behavior designed specifically for in the field of information systems, states that attitudes towards information technology are also based on users'



assessments of the usefulness and ease of use of information technology, which shows the extent to which their expectations have been met by innovation.

Integration into the Organization (Integration into the Organization). Innovation can also be said to be successful if it becomes routine or permeates an organization in a certain way. An innovation is institutionalized when it is accepted as a social fact within an organization, is used by many members, and persists in the organization for a long period of time. The basic premise is that the more innovation activities are used and the more widely they are used in these activities, the better they are integrated into the organization. Benbasat and Dexter (in Real and Poole: 2005), integration can also be measured in terms of the extent to which information system applications are integrated with other information systems.

Effectiveness of Implementation Effort. The extent to which implementation efforts are effective is another measure of success. Measures of implementation success assume that effective innovation is part of implementation and should be reflected in it. Apart from that, implementation stages are also discussed which show how many stages have been achieved (achievements).

Edmondson, Bohmer and Pisano (in Real and Poole: 2005), measuring the effectiveness of implementation can be assessed by how complete or well the stages have been completed in providing convenience for users of innovation in the future. Not only that, another way to measure implementation effectiveness is to assess the extent of obstacles. implementation is addressed. This approach treats implementation as a problem and implicitly assumes that effective innovation and implementation processes consist of identifying and overcoming obstacles.

A final approach to implementation effectiveness is to assess implementation fidelity, the extent to which the implementation is in line with the initial innovation, especially previously planned features. If these indicators are met, there is a high probability that innovation can be successful and will be in accordance with the purpose of its creation.

Innovation is greatly influenced by developments in the level of competition and rapid technological change, so that innovation is considered a major challenge for many organizations (Greenhalgh, Robert, Bate, Macfarlane, & Kyriakidou, 2005). Therefore, innovation in organizations can develop through several stages according to Rogers (2003) starting from awareness, adoption, implementation, and routine. The Adoption stage refers to the organizational decision to try to use an innovation, while the transition process between adoption and routinization refers on "the consistency and quality of use of technology or innovative practices by members of the targeted organization" (Klein et al., 2001: 812).

Innovation studies that continue to develop also have implications for challenges in implementing innovation in an organization. Fichman and Kemerer (1999) show that new information technology remains unused for the first 5 years after adoption in more than half of organizations. The effect is that the phenomenon creates a substantial "assimilation gap," a common phenomenon in implementation processes. This indicates that without implementation, the most brilliant innovations and broad potential will remain only potential (Real & Poole, 2005, p. 63).

Existing studies on innovation implementation focus on employee-related processes or organizational/institutional processes. Some research begins at the individual level and has examined employees' affective and behavioral responses to an innovation, such as psychological commitment to the innovation, intentions to use it, and actual innovation use behavior (Choi & Price, 2005; Hartwick & Barki, 1994). But more than that, another group of studies has conceptualized implementation as an organizational-level phenomenon that may be driven by the institutional structure, resources, and practices and systems of the implementing unit (Chatterjee, Grewal, & Sambamurthy, 2002; Purvis, Sambamurthy, & Zmud, 2001). Based on the two approaches being considered complementary, institutional factors can influence the

success of an organization's implementation by influencing the attitudes and behavior of its members (Greenhalgh et al., 2005; Scott, 1995).

In research conducted by (Jin Nam Choi & Jae Yoon Chang, 2009) which tried to integrate these two processes, they developed a theoretical framework to explain how collective processes involving employees and institutional factors jointly influence various implementation outcomes. Klein et al. (2001) assume that the model includes two implementation outcomes for social units involved in implementing innovations which include: implementation effectiveness, or the overall level of assimilation of an innovation into the unit's work processes, and innovation effectiveness, which refers to the extent to which the unit obtains benefit from innovation.

Research on Antecedents of public managers' collective implementation efficacy as they actualize new public services: the effectiveness of public managers' collective implementation when they actualize new public services. Showing that implementing innovation is very challenging, because innovation appears in individual, organizational, national and international contexts (Demircioglu & Audretsch, 2017). It is therefore recommended that research in the public sector focus more on organizational factors and contextual factors that influence public sector innovation (Demircioglu et al., 2023). One of the limitations of research on cases of inhibiting innovation is the lack of variables that analyze individual and contextual aspects in the implementation of innovation (Choi & Chang, 2009).

Further research on innovation implementation in the public: an integration of institutional and collective dynamics or the implementation of innovation in the public sector: an integrity of institutional and collective dynamics by (Choi & Price, 2005; Hartwick & Barki, 1994) This research focuses on active response and employee/employee behavior towards implementing innovation where commitment to implementing innovation is based on the belief in employee/employee intentions to use innovation, and behavior rather than using innovation. Furthermore, there is still the same research where the emphasis is on conceptualizing implementation as an organizational level phenomenon that can be driven by institutional structures, resources, as well as practices and systems of the implementation unit (Chatterjee, Grewal, & Sambamurthy, 2002; Purvis, Sambamurthy, & Zmud, 2001 ). So it is considered and believed that these two approaches complement each other in the context of influencing the success of organizational implementation by influencing the attitudes and behavior of its members (Greenhalgh et al., 2005; Scott, 1995).

In Hjren & Porter (1981) in Parsons (2011: 486) said that the implementation of innovation should be analyzed using the context of institutional theory (Scoot, 1995) with the concept of implementation from Klein et al, 2001) which offers that institutional factors can shape beliefs and involvement. collectively/individually so that more benefits can be achieved by innovative programs that can be accepted by farmers to increase agricultural productivity and food security (Choi & Chang, 2009).

So based on the problems previously described regarding the implementation of innovation among millennial farmers in the YESS program in the district. Maros needs the right solution to solve this problem. There is a theory of innovation implementation by Steelman (2010) and Real, K and Poole (2005) as well as an in-depth look at the results of previous research which integrates that there are institutional/institutional factors (Scott, 2009) and employee-based individual/collective processes (Klein, Conn, & Sorra, 2001) where both are integrated to develop a theoretical framework to explain the collective processes involving employees and institutional factors jointly involved in achieving implementation effectiveness and innovation effectiveness to the extent of obtaining benefits from innovation (Choi & Chang, 2009).

### *2.3 Millennial Farmers*

Indonesia is an agricultural country with around 33.4 million farmers, the majority of whom are aged 50-60 years who are less productive, while there are only around 2.7

million young farmers or only 8% of the total number of farmers. Agriculture in Indonesia is not yet fully developed because there are still many older farmers who rely on traditional methods and use simple tools, there are still many farmers who only work as laborers on other people's land, apart from that there are other factors such as land shortages, low market prices. less profitable, lack of support from the government, import activities that are detrimental to small farmers, policies that are not oriented towards farmers, and so on, this is what makes the farmer's economy not prosperous, therefore it is necessary to improve the quality of the agricultural sector, one of which is inviting millennial youth to become a modern farmer.

Millennial farmers are farmers aged around 19-39 years who rely on technology and keep up with current developments. Millennial generation farmers have many opportunities compared to previous generations and of course also need support from the government. There have been many millennial farmer programs spread, the aim of which is to invite farmers to develop skills and knowledge, by involving them. Technological advances can obtain added value and increase product sales. This opportunity must be maximized so that more young people enter the world of agriculture. During the pandemic, the agricultural sector actually experienced an increase when other sectors experienced a decline, this happened because many people were laid off and then switched professions to farming. During this pandemic, Indonesian people are more concerned about health, in this case many millennial farmers are starting to improve the quality of organic products. , the large amount of competition that occurs means that every farmer must be able to develop innovations so as not to be left behind, improving quality from the production process to post-harvest.

Indonesia's natural wealth is very abundant, therefore proper management is needed, by maintaining the regeneration of farmers, this country's food security will also be maintained. Millennial farmers play an important role in agricultural welfare because millennial farmers have broader thinking, especially in terms of marketing. With a wide market reach, it is possible that in the future Indonesia will be free from imports and increase production for export. The majority of raw materials exported by Indonesia to the global market, such as vanilla, palm oil, coffee, spices, and so on, really help maintain world food security, therefore it is necessary to improve product quality and innovations that keep up with current developments.

The age of Indonesian farmers in 2018 is that older farmers dominate. In the use of information and communication technology applied in the agricultural sector, there are socio-economic factors that influence decision making, such as the farmer's age, level of education, and land area to be used (Mittal and Mehar 2016), the lack of regeneration of young farmers means that Indonesia can experience There will be a farmer crisis someday, because the majority of farmers in this country are approaching less productive age, many young people are reluctant to work as farmers because of the stigma of farming which is considered a lower class job with unpromising results.

The majority of farmers' education is elementary school, very few farmers with higher education, this is why agriculture in Indonesia is not yet fully advanced, the level of education is quite important because nowadays there is a lot of competition that relies on advances in technology and communication, besides that small farmers tend to work only to meet their needs. family only, the land owned by farmers is not large so they do not play a full role in market needs, apart from that small farmers often work following the seasons and harvest failures often occur, this is what makes financial conditions small, while to implement technology in farming requires quite a lot of money (Mukasa, 2018). Knowledge needs to be increased to improve the quality of farmers, not only knowledge but also experience, motivation and equipment capital because they are related to each other to be able to create good agriculture.

The rapid development of technology and communication nowadays makes it easier to do anything, by utilizing technology such as the creation of synthetic fertilizers,

dams, pest control equipment, and other modern agricultural tools. The use of agricultural technology in Indonesia has succeeded in achieving food self-sufficiency status. Farming activities are starting to be noticed and several young people are starting to get involved in this field, agricultural progress is now much better, creating enthusiasm to continue to improve the quality of Indonesian agriculture, in the last decade it has achieved food self-sufficiency status (Hamilton-Hart, 2019), technological advances have also can be applied in the agricultural sector, if the use of adequate technology can certainly create new innovations and streamline production to marketing processes, apart from that, the use of technology can have the opportunity to reduce production costs and reduce selling prices which will have an effect on increasing competitiveness, but in Indonesia still experiences many obstacles, one of which is because the majority of farmers are older people who are weak about technological and communication developments.

Older farmers' lack of knowledge about technological developments means that the government must pay more attention. By holding extension programs it can certainly be very helpful, but the extension program must be able to have a long-term impact, because for some farmers they feel that extension activities are just a work program, extension must be implemented. effectively so that farmers can understand the information conveyed clearly, not only counseling but farmers need financial assistance and the need for citation and paraphrasing equipment: socio-economic factors that influence the decision to adopt information and communication technology (ICT) are the farmer's age, level of education, and managed land area (Mittal and Mehar 2016)

In the use of information and communication technology applied in the agricultural sector, there are socio-economic factors that influence decision making, such as the farmer's age, level of education, and the area of land to be used (Mittal and Mehar 2016), the gap between the financial capacity of small farmers and costs. the adoption of modern technology is increasingly widening, making it increasingly difficult for small farmers to adopt advanced technology (Mukasa, 2018). Farming activities are starting to be noticed and several young people are starting to get involved in this field, agricultural progress is now much better, creating enthusiasm to continue to improve quality.

Indonesian agriculture, in the last decade has achieved food self-sufficiency status (Hamilton-Hart, 2019). The enthusiasm to achieve food self-sufficiency status again has been rekindled in the last decade (Hamilton-Hart, 2019). Farming activities are starting to be noticed by several young people starting to get involved in this field, agricultural progress is now much better, creating enthusiasm to continue to improve the quality of Indonesian agriculture, in the last decade it has achieved food self-sufficiency status (Hamilton-Hart, 2019).

As a manifestation of the Government's concern, through the Ministry of Agriculture and Food Security, it has established policies related to millennial farmers who are highly competitive. In the Law, Millennials are the term for the young generation today who are synonymous with modern, up-to-date people and like anything that is mixed with advanced technology. The millennial generation is present in every field of human life, including agriculture. The Agricultural Extension and Human Resources Development Agency (BPSDMP) of the Ministry of Agriculture has determined three characteristics of the millennial farmer generation, including those aged 19 - 39 years, having a millennial spirit and being adaptive to digital technology and having a business collaboration network.

Millennial farmers are regulated in the Regulation of the Minister of Agriculture of the Republic of Indonesia no. 04 of 2019 concerning Movement Guidelines Development of Agricultural Human Resources towards the World Food Granary 2045 which was then developed in the Regulation of the Minister of Agriculture of the Republic of Indonesia No. 09 of 2019. This program aims to encourage the younger generation, especially those who live in rural areas, to get involved in the agricultural

sector by adopting the latest technology and innovating in managing agricultural resources in the future.

The government in maintaining food security where millennial farmers are one of the policy innovations which is considered a solution when agricultural productivity decreases as a result of farmer productivity which is increasingly decreasing day by day. Farmer productivity has decreased because the younger generation is not interested in the agricultural sector because the agricultural sector is considered an unpromising profession and the process is long. The Indonesian government has implemented the millennial farmer program as a policy innovation (Dyah Indriyaningsih Septeri, 2023).

Maros Regency, located in the province of South Sulawesi in Indonesia. In agriculture Kab. Maros has enormous potential in the agricultural sector. Since 2008 the agricultural sector has increased. Based on the data obtained, the dominant commodities developed include: lowland rice occupying a production area of 76.50 tons. The agricultural sector is the dominant sector for South Sulawesi because it is a rice supplier in the Eastern Region

Indonesia (KTI) and one of the national food barns has a rice harvest area of 991,935.52 ha with rice production of 5,152,871.43 tons (BPS South Sulawesi, 2022). Most of the rice production in South Sulawesi Province is produced by lowland rice. Maros Regency's agricultural production with an average surplus of 113 tons per year is one of the buffers in South Sulawesi province in fulfilling consumption. In supporting agricultural production, the Regency Government continues to strive to improve the standard of living and make farmers prosperous. The government through the Ministry of Agriculture in collaboration with the International Found for Agricultural Development (IFAD) has planned the YESS (Youth Entrepreneurship and Employment Support Services) Program. The YESS program has been implemented in four provinces, namely West Java, East Java, South Kalimantan and South Sulawesi as a pilot project for developing entrepreneurship and employment for the younger generation in the agricultural sector.

The YESS program is designed to produce young rural entrepreneurs and produce competent workers in the agricultural sector. Through the Youth Entrepreneurship and Employment Support Service (YESS) Program, the Ministry of Agriculture creates strong and high-quality millennial entrepreneurs. This program is aimed at young people, especially in rural areas, to developing the economy through entrepreneurship and increasing job opportunities. In the 2019-2023 period, the implementation of the YESS Program targets 32,000 young people in rural areas. YESS program locations in Indonesia are spread across 19 regencies in 4 provinces, namely West Java, East Java, South Kalimantan, South Sulawesi. The focus of the main activities of the YESS program is: Increasing the capacity of rural youth in the agricultural sector, developing young rural entrepreneurs, facilitating access to capital, building a conducive business environment.

Maros Regency was chosen to be one of the locus points for implementing the YESS Program in South Sulawesi Province after Regency. Bulukumba, Kab. Bantaeng, District. Jennepono, Kab. Takalar and Kab. Bone. In line with the YESS Program at the Ministry of Agriculture, in Kab. Maros itself, the implementation of the YESS Program is intended to fulfill the stipulated criteria in that farmers are young and directly involved in the YESS program and the YESS program involves young people who can become entrepreneurs in the agricultural sector to create jobs so that the standard of living for farmers increases. The YESS program started in 2019 in Kab. Maros started by providing education and training to village youth to prepare them to become agents in agricultural development and then targeted these youth to have an entrepreneurial spirit from upstream to downstream to enter the world of agriculture. Program

Yess has recruited millennial farmers in 14 sub-districts throughout Maros

Regency and has gathered 8140 people to become millennial farmers. The phenomenon of implementing millennial farmers in the YESS program in Kab. Maros is still far from optimal because there is still a lack of involvement of young farmers' resources who are reluctant to be directly involved because of the lack of support from farmer institutions/institutions by the farmers themselves and the limited use of the budget so that the YESS program runs stagnant, especially when proposals for using the budget become a complaint. main. The YESS program requires uniqueness from successful agricultural programs, the involvement of cooperative elements for the government, financial institutions, farmers and others often hampers the work process of agricultural businesses due to bureaucratic steps that must be fulfilled, such as visit/survey schedules by teams that lack coordination and commitment to success YESS program.

## CONCLUSION

Research shows that the agricultural production index is increasing even though digitalization and the interest of the millennial generation is still low. Millennial farmers need digital assistance for marketing via social media, which has proven effective in marketing export products. The development of agrotourism increases farmers' income and overcomes price and marketing problems. The success of agricultural innovation depends on the proper implementation and adaptation of technology at various levels.

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