

A Model of Social Welfare of Village Farmers and Production Capacity: A Case of Agricultural Products in Indonesia

Nuraeni¹, Bambang Slamet Riyadi², Mochammad Rozikin³, Choirul Saleh⁴ and Wike⁵

Abstract

This research aims to understand the Social Welfare of Village Farmers and Production Capacity of Agricultural Products in Indonesia. This topic is of particular interest from both an ontological and a sociological perspective, in the context of public policy. The research questions were analyzed using a mixed methodology, combining qualitative and quantitative research. The qualitative study data were collected through observation and documentation; the analysis was done through multiple steps like data reduction, presentation, verification also with the support of triangulation. Quantitative data were collected through 100 respondents survey, analysed using Partial Least Square (PLS). The qualitative findings indicated that there was a need for information to be provided to stakeholders regarding the social welfare of village farmers and the production capacity of agricultural products in Indonesia. The implementation of this information would be beneficial. The quantitative findings indicated that public policy and social welfare had a positive and significant impact on production capacity. This result provided inputs for the creation of more effective regulations and policies for state agencies as public officials and practitioners in managing social welfare of village farmers and production capacity of agricultural products.

Keywords: Social Welfare, Production Capacity, Agricultural Product.

INTRODUCTION

The elements, resources, and production capacity of agriculture are based on a reflective analytical approach. The tool's core helps identify and configure organizational capabilities, resources, and system elements, which leads to interconnections and a competitive edge. It is imperative that agricultural production adopt strategies that will facilitate growth rates capable of addressing global inequality, hunger, and poverty. Examining the inputs, resources and capacities of agricultural production, it is clear that agricultural production units need to adopt growth-enhancing technologies to address global concerns of hunger, poverty and inequality (Nurhadi, Riyadi, Rozikin, & Nuh, 2024; Perez, Molina, Gomez, Antunez, & Martinez, 2019).

A further study, conducted in the Indian state of Tamil Nadu, has identified organic farming as a sector with significant potential for future growth. Data collection methods included semi-structured surveys and face-to-face interviews. Stepwise regression was used to identify the independent variables that were important in determining the impact of organic farming. The majority of participants were older, with primary to secondary education and some organic training. Despite relatively low media coverage, personal interaction, growth, risk and a scientific focus were clearly emphasized. Farmers' perceptions of environmental degradation, the use of organic fertilizers, the profitability of organic farming and environmental protection methods ranged from moderate to high. The impact of organic farming on farmers' livelihoods accounts for 77% of the variation in the independent variable (Paramasivam, Henry, Seethapathy, & Rajamohan, 2022; Rozikin, Riyadi, & Mukminin, 2024).

A comprehensive and systematic study has been carried out, covering various approaches and determining the advantages and disadvantages of these approaches. A selection of relevant papers was carried out according to

¹ Universitas Briwijaya. Doctoral Program of Public Administration, Malang. East Java, Indonesia, Email: nuraeni.pdia.ub@gmail.com

² Universitas Bhayangkara Jakarta Raya. Faculty of Law. Jakarta. Indonesia. Expert of Agrarian Law and Public Policy, Email: bambang.slamet.riyadi@dsn.uharajaya.ac.id, (Corresponding Author)

³ Universitas Briwijaya. Faculty of Faculty of Administrative, Malang. East Java. Indonesia, Email: mochrozikin@ub.ac.id

⁴ Universitas Briwijaya. Faculty of Faculty of Administrative, Malang. East Java

⁵ Universitas Briwijaya. Faculty of Faculty of Administrative, Malang. East Java

the selection criteria as part of a systematic review. The diagonal model combined with the data-centered quadrant model takes precedence over the scale-centered quadrant model and the quadrant model. The direct user assessment provides the mean values of the relevance and performance of the various service qualities. These mean values are then computed in a particular coordinate system, with the vertical axes denoting importance and the horizontal axes representing performance. The average performance and importance of different product elements are calculated relative to each other, particularly in the area divided into four quadrants (Ormanovic et al., 2017; Rozikin, Riyadi, & Achmadi, 2024).

The digital village efficiency trend empowers urban-rural balanced development. The three-level DEA-Malmquist model avoids the disadvantages of typical DEA models by removing random disturbances, environmental effects and inefficient management. The results show that the overall technological efficiency is high. The efficiency is strongly positively influenced by regional finances, the level of education and the optimization of the industrial structure; however, the efficiency is negatively influenced by technical innovation and the degree of urbanization. Productivity demonstrates a decline in marginal utility and a shift in its decomposition. Technological advancement and digital village efficiency in China facilitate an equilibrium between urban and rural areas (Cao, Niu, & Wang, 2022; Indah, Astutik, Riyadi, Zauhar, & Haryono, 2024).

Behavioral change can provide a framework for examining and sustaining change through agency, self-efficacy and empowerment prisms. In the context of agricultural intensification, case studies from a project in Bangladesh and India looked at the social inclusion of disadvantaged and impoverished farmers. There are a number of preconditions that need to be met in order for significant change to be brought about. This includes the existence of the intended beneficiary with the necessary means, motivation and belief in his or her own ability to make a difference. It is necessary to formally stimulate behavioral and social change to improve society and the environment in the long term. (Hamilton et al., 2022; Septiyanto, Riyadi, Saleh, MM, & DPA, 2024).

On the basis of information on the global spread of the COVID-19 pandemic, a total of 1,020 people registered for the survey. From this, 999 met the inclusion criteria and were included in the subsequent analysis. Using Rasch modelling to examine the data, the IES-R was shown to be an adequate instrument. The results also showed that as a unidimensional construct, as defined by the items included in the IES-R, the 22 items of the IES-R made a significant contribution to the assessment of the IES-R. The three components of the IES-R, intrusion, avoidance, and hyperarousal, along with the 22 items of the test, demonstrated sufficient construct validity within and across countries. However, 16 items were found to be better than 22 items in the information criterion model results. The results demonstrated that the 22-item scale was a valid screening instrument for assessing PTSD in the context of the COVID-19 pandemic, and that, depending on the screening's outcomes, it may be utilized to promptly provide mental health care (Aljaberi et al., 2022; Purboyo, Riyadi, Irawan, & Inkiriwang, 2024).

The significance of farmers' organizations in fostering innovation in Guatemala's rural food systems was investigated using the theories of transformational capacity and socio-technical transitions. The study also looked at the elements that have either helped or hindered grassroots innovation's ability to change rural communities. Focus group discussions and interviews with relevant stakeholders in the development process are used to present a case study from Guatemala. The critical role of farmer groups as catalysts for enhancing the transformative potential of grassroots innovation is highlighted in the perceptions gathered from the FGDs and interviews. The ability of farmers' organizations to promote innovation and socio-technical transformation at the grassroots level is crucial. It encourages creativity and experimentation, provides technical assistance throughout development, and contributes to coherence around a shared vision of sustainability (Ortiz & Peris, 2022; B. Sl. Riyadi, 2024).

There are many approaches to the implementation of innovation, including the study of the different ways in which Agri-tourism can be integrated, the development of strategies to promote this integration, and the use of Agri-tourism to increase farmers' productivity. There is insufficient documentation of the farmer's plan of action under different conditions, leading to a lack of complete knowledge. The effects of agrotourism integration on agricultural development from a macro perspective have been examined in previous publications. However, the impact of agro-tourism integration on farmer productivity from a digital empowerment point of

view has been little studied. By dissuading dubious farmers from pretending to work for others, and by increasing the likelihood of investigation and the cost and consequences of such investigation, Xichong promotes agricultural productivity. From a digital empowerment perspective, the merging of tourism and agriculture is characterised by data traceability, which increases the risk of getting fined for impersonating an opportunistic farmer and increases costs. Farming productivity is supported by lower production costs and more opportunities to produce high quality agricultural products. In terms of digital empowerment, combining tourism and agriculture has attributes such as sharing knowledge, increasing farmers' productivity through technology and opening opportunities to produce quality agricultural products at lower costs. Seen through the lens of digital empowerment, the integration of agriculture and tourism offers information matching qualities. From a supply-side perspective, this is critical in identifying the root causes of consumer trust, addressing industry-specific issues, reducing search and location barriers, and increasing demand for quality agricultural produce (Chandra & Riyadi, 2024; B. S. Riyadi, 2024; Zhong, Tang, & Li, 2022).

By establishing a framework for performance accountability, government institutions can improve their regulations. There is an urgent need to consider taking on the task of formulating more robust laws and policies. The Performance Accountability System (PAS) can be used to improve the quality of regulations. To improve policy and practice, leadership and service are broken down into several categories. User satisfaction is a direct and positive influence on the success of the institution. Several features that contribute to better policy have been identified in previous research examining the critical success factors of public-private partnerships. For example, the effects of information technology on creative work practices are mediated by workplace spirituality; the effects of transformational leadership are mediated by the climate for invention; and the effects of information technology on creative work practices are mediated by workplace spirituality. Checks and balances, rule of law and rule of justice are properly upheld with due regard to principles of State Constitution and laws. The outcome of trials is also evidence of Indonesia's lax approach to criminal justice. Settlements are often based on vested interests and political wrangling due to the level of conflict of interest. Indonesia has a wealth of natural resources, which the state must continue to manage (Priyambodo, Wijaya, Wike, Sujarwoto, & Riyadi, 2023a, 2023b; Purbiyantari, Zauhar, Suryadi, Hermawan, & Riyadi, 2023b, 2023a; Sinulingga et al., 2023; Susilo, Astuti, Arifin, Mawardi, & Riyadi, 2023; Syahrudin, Wijaya, Suryono, & Riyadi, 2023; Tjahjono, Suryono, Riyanto, Amin, & Riyadi, 2023; Toruan, Gusti, & Riyadi, 2023). (Hermanto & Riyadi, 2020; B. S. Riyadi, 2017, 2020b, 2020a; B. S. Riyadi, Atmoredjo, & Sukisno, 2020; B. S. Riyadi, Wibowo, & Susanti, 2020).

In addition to cooperation, competence and performance, the motives, practices and outcomes of conflict management are still the subject of further research. Misbehavior at the production level, at the political level, at the intrapersonal level and at the interpersonal level has resulted in financial and social losses. Both parties need to act. Capability, performance and partnership are all interlinked with each other. In the relationship between collaboration and performance, capability must act as a comprehensive mediator. Conflict resolution must be used to manage capability, collaboration and information sharing if they are to be successful and have a significant impact. Satisfaction at work is very likely to help people to perform. (Assery, Tjahjono, Sobirin, & Hartono, 2017; Feriyanto, Assery, Saleh, & Suryaningsum, 2017; Hendriarti, Othman, Arif, Assery, & Jamal, 2022; Saleh, Assery, & Dzakiyullah, 2018; Saleh, Assery, Sabihaini, & Suryaningsum, 2017).

Particularly in terms of performance accountability, public service has a very positive impact on professionalism. A number of thematic categories that provide insightful classifications for improving policy and practice can be used to group the concepts of leading and serving. User satisfaction has a statistically significant and positive effect on organizational performance. Spiritual at work mediates the effects of information technology on innovative work practices, while an innovative climate influences the effects of transformational leadership on the latter (Chandra & Riyadi, 2024; Priyambodo et al., 2023a, 2023b; Purbiyantari et al., 2023a, 2023b; Purboyo et al., 2024; B. S. Riyadi, 2024; Septiyanto et al., 2024; Sinulingga et al., 2023; Susilo et al., 2023; Syahrudin et al., 2023; Tjahjono et al., 2023; Toruan et al., 2023).

Conflicting interests, which often lead to settlements, are influenced by political debate, abuse of power and vested interests. The management of Indonesia's abundant natural resources must remain in the hands of the State (Hermanto & Riyadi, 2020; B. S. Riyadi, 2017, 2020b, 2020a; B. S. Riyadi, Atmoredjo, et al., 2020; B. S.

Riyadi, Wibowo, et al., 2020). In addition, research on economic crime in Indonesia during the reform period, focusing on state officials, the legislature and political parties, shows that the incidence of economic crime is increasing at a worrying rate and could possibly be coordinated at the state level (Chandra & Riyadi, 2024; Purboyo et al., 2024; B. S. Riyadi, 2024; B. Sl. Riyadi, 2024).

In Indonesia, the agricultural industry continues to represent an avenue of employment accessible to the general population. About half of Indonesians are employed in the agricultural industry. The government, especially the Ministry of Agriculture, is taking numerous measures to address these concerns and provide support to actors in the agricultural industry. For the people of Indonesia, particularly those in small and medium-sized enterprises, agriculture still represents a significant economic opportunity, provided that the necessary enabling conditions are in place. The Indonesian population, which is among the largest in the world, has a constant need for food and other agricultural products. In addition to dominating the domestic market in Indonesia, farmers continue to develop new products for export. However, farming communities regularly deal with a variety of difficult issues, and quite frequently, these issues actually result in significant losses. Every year, these issues crop up, and the government is given the task of solving them as soon as possible. The satisfaction of fundamental requirements and a rise in purchasing power are signs of prosperity. Indicators of farmer welfare, farmworker pay, inflation, and per capita income are a few elements that affect poverty in rural areas. The farmer's exchange rate is a useful indicator of their overall well-being. The ratio of the price index that farmers get to the price index that they pay, presented as a percentage, is known as the farmer exchange rate. Rice is the primary crop produced at family farms, which are considered to be a restricted definition of agriculture. In contrast, the broader definition of agriculture encompasses not only family farms but also smallholder agriculture, plantations, animal husbandry, fisheries, and forestry. The fundamental objective of agriculture is to generate food, industrial raw materials, or energy sources, as well as to manage the environment. Energy is required by humans to keep their bodies' resistance. One of the staple foods, rice is simple to prepare, delicious, and has a high energy content, which means it has a significant effect on bodily function or health. Rice is a component of food that is made from rice (Irham & Mulyo, 2016).

Indonesian Law No. 19 of 2013 on the Protection and Empowerment of Farmers regulates the empowerment of farmers. Farmers are empowered if they receive education, training, advice and mentoring; systems and facilities for marketing agricultural products are established; agricultural land is consolidated and guaranteed; access to information, technology and knowledge is facilitated; and institutions are strengthened. Minister of Agriculture Regulation No. 82 of 2013 states that, farmer empowerment can also achieved through farmer group method-based training and counseling programs. Farmers' organizations are groups of farmers united by common interests, commodities, friendship, and comparable social, economic, and resource circumstances to improve and progress the operations of its member. A farmer group is a structure formed at the farmer level to bring farmers together over farming. Production theory describes how input and output are technically related. Inputs are the materials and labor used in a production process, and outputs are the products of a production process. While the production process transforms inputs into outputs to raise the value of the finished products. Farmers acting as executors anticipate the highest rice output levels in order to generate significant cash. Therefore, producers use land space, seeds, fertilizer labor, and other production facilities as bait to obtain the intended output outcomes. Technically speaking, production is the process of using resources to try to maximize the outcomes of all the operations that have been carried. The output needs to be expanded or enhanced in both quantity and quality in order to keep up with the growing demand. (Hartatik & Adiningsih, 2003).

Law No. 19 Article 3 of 2013 on the Protection and Empowerment of Farmers sets out the following objectives for the empowerment of farmers A. Recognize the right and autonomy of farmers to improve their standard of living, welfare and quality of life; B. Provide agricultural infrastructure and facilities necessary for the growth of farms; C. Provide stability for farms; D. Protect farmers from price fluctuations and costly economic conditions In Indonesia, one form of agriculture is smallholder agriculture, also known as people's agriculture. Paddy fields, fields and gardens are used to grow agricultural products such as rice, maize, sago, sweet potatoes, beans and soya beans; and paddy fields are where rice is grown. Therefore, according to the

constitution, the state or government has the responsibility to guarantee the welfare of the farmers. Given that farmers are a group that is currently vulnerable to changing circumstances, it is expected that the safeguards put in place will be able to operate in accordance with the laws specifically referred to. Economic expansion and population growth have put pressure on the availability of agricultural land for food production due to competition from other sectors. The transfer of agricultural land to non-agricultural purpose has resulted in the loss of agricultural land. Paddy fields serve as the primary source of land for agriculture and are also the sites of this land conversion. In 2020, there were almost 5 million people working in agriculture, but the sector is experiencing underemployment, meaning that although more people are working, food production is not increasing. This increase the number of new workers joining the industry and allows those who have been laid off from other industries to find employment in the agricultural sector. Agricultural started to decreased as result of workers leaving the industry.

Based on findings from studies carried out in Latin America, Africa, and Asia, it shows that increasing production capacity is a critical step toward advancing the agricultural sector and social welfare of farmers. However, previous researchers that have been attempted to examine the Social Welfare of Village Farmers and Production Capacity of Agricultural Products in Indonesia have yielded mixed results. Meanwhile, these researchers are investigating the Social Welfare of Village Farmers and Production Capacity of Agricultural Products in Indonesia. It is possible to identify the problems that occur in the Social Welfare of Village Farmers and Production Capacity of Agricultural Products in Indonesia. Referring to the problem identification, the research question is defined as follows: How is the Social Welfare of Village Farmers and Production Capacity of Agricultural Products in Indonesia?

LITERATURE REVIEW

Public Policy

Public policy refers to the decisions made by all government offices and agencies combined. Government actions and programs, together known as public policy, can either help or hurt a community. Their primary goal is to advance the interests of the community, and this is mostly demonstrated by the decisions they make about the official actions that are declared and carried out. Public policy analysis is a theoretical and practical technique that aims to produce, evaluate, and disseminate information regarding policymaking and its processes. The five interlocking processes of the policy analysis process result in a complex, non-linear cycle of intellectual effort. These things happen one after the other in a complex, non-linear, primarily political policy process. The focus, the locus and the value are critical components that are strongly emphasized in the paradigm of public administration. There is also a strong emphasis on managerial tasks and organizational structure. Neo-bureaucracy places particular emphasis on decisions made by government bureaucrats and emphasises management, systems, behaviors-based decision-making processes and research. It also promotes being economical, rational, effective and efficient. Institutions' main aim is to understand bureaucratic behavior and make careful, methodical judgements. The organisation's human relations priorities are participation in decision-making, minimization of differences, status, openness, self-realization and greater job satisfaction. Public alternatives focus on the provision of community services. In addition, the organizational framework on which NPM rests emphasizes the need to be decentralized, democratic, responsive and participatory in the delivery of services to the public (Dunn, 2012; Frederickson, 1976).

Public policy is affected by the degree of accountability and authority held by the Government and those elected to represent it. Power is distributed through laws and policies. The objectives of the many stakeholders and the changing political and economic roles of the country need to be considered. Social, political and economic problems will result from inefficient government services. In public policy, co-operation is encouraged to enable goals to be achieved and problems to be addressed. To ensure that problems are solved effectively, cooperation approaches are broad in scope and focus on both content and methodology. The basic principles of NPM include: direct professional leadership, clear standards and performance measures, a stronger focus on output control, desegregation of the public sector, increased competition within the public sector, an emphasis on private-sector management techniques, and greater discipline and economy (Hood, 1991; Ikeanyibe, Eze Ori, & Okoye, 2017; Kapucu, Yuldashev, & Bakiev, 2009).

We can conclude that the development of multiple policies for the social welfare of village farmers and the production capacity of Indonesian agricultural products are components of public policy theory, based on the epistemic and sociological descriptions of several definitions of public policy theory.

Production Capacity

Increased chemical use, mechanization, specialization, new technologies and output-maximizing government restrictions have all contributed to increased agricultural productivity. Agriculture is particularly vulnerable to climate change. Ensuring access to food and maintaining a healthy ecological balance are issues that are of concern to thinkers, scientists, environmentalists and decision-makers alike. Through an ecosystem approach, sustainable agriculture maintains a healthy food chain and the energy balance associated with it, in addition to the peaceful co-existence of soil, water, plants and other living organisms. Achieving significant increases in agricultural productivity through the efficient use of land and other resources, while improving individual economic returns and contributing both economic development and quality of life, requires addressing environmental concerns in the management of natural resources. Modern technologies must be used to preserve sustainable agriculture and productivity. These technologies should safeguard the environment by superior cultivars, cutting-edge irrigation systems, and improved soil quality. Even though these reforms have decreased numerous risks in farming and had many positive consequences, they have come at a high financial cost. Among them are the degradation of topsoil, the contamination of groundwater, the demise of family farms, the persistent indifference to the living and working conditions of agricultural workers, the increase in production costs and the breakdown of economic and social institutions in rural areas (Abubakar & Attanda, 2013).

Rice production, expressed in kilograms (kg), is the total amount of rice produced on rice-growing areas in a single growing season. The capacity to produce per hectare is an indicator of production productivity. In addition to labor, land space, and a variety of raw supplies, rice production in general also necessitates several other production parameters. Various human requirements cannot be addressed without production activity. Living standards are an indicator of progress in terms of production management. Human needs to achieve affluence are the reason for production. The first party involved in production activities—the party that produces the goods and services—is known as the producer. The second party—consumers—are the ones who use the goods and services. Therefore, from the perspective of the interests of the people concerned, it is also possible to particularly view production goals. For manufacturers, raising profits and ensuring a company's sustainability are the goals of production. For the community or customers, however, the goal of production is to supply a variety of things to suit their daily needs (Chauhan, Mohapatra, & Pandey, 2006; Pingali & Xuan, 1992; Sinha & Talati, 2007; Yodkhum, Sampattagul, & Gheewala, 2018).

Sustainable agriculture is a contentious issue that is being explored in many regions of the world. The discussion focuses on different interpretations of sustainable agriculture. To be considered sustainable, an agricultural system must: meet people's basic needs for food and fiber, be economically viable, raise the standard of living of farmers and society, and, over time, improve the environment and the resource base on which agriculture depends. Different definitions exist, but the idea of what is meant by sustainable agriculture remains the same. Sustainable agriculture can also be defined as an effort to raise the standard of living for farmers and for the public, while at the same time meeting the human need for food and fiber. As a result, sustainable agriculture does not have a clear and widely accepted definition. For this reason, sustainable agriculture is often seen as a management philosophy rather than a specific application strategy. Whether or not one agrees with any definition is a matter of personal conviction. However, the majority of agricultural experts agree that sustainable agriculture is essential for the survival of our planet and the growing human population. A prominent area of public policy concern is sustainability, which focuses on managing environmental change and its impact on people, the environment and the economy (Abubakar & Attanda, 2013).

The adoption of new technology, increasing mechanization, increased chemical use, specialization, and

government programs that promote production maximization have all led to increases in agricultural productivity. Sustainable agriculture is a subject that is hotly debated and of considerable interest in many regions of the world. The idea of sustainable agriculture, according to many agriculturalists, is essential to the survival of our biosphere and the world's fast growing human population. The highest production outcome that can be achieved in a specific amount of time is known as production capacity. Three opinions exist on what capacity is: Design capacity is the maximum output under ideal conditions - excluding scheduling conflicts, defective items, and regular maintenance. Effective capacity is the maximum output at a given level of operation. The actual output that a production facility is capable of producing is indicated by the actual capacity of the facility. Actual capacity is usually lower than specified capacity. Try to match effective capacity to actual capacity (Corrado & Matthey, 1997).

Based on various definitions of production capacity theory, both epistemological and sociological, this research can be further refined to conclude that the concept of production capacity theory can be used to analyze the development of multi-policies concerning the social welfare of village farmers and the production capacity of agricultural products in Indonesia.

Social Welfare

The positive or normative aspects of economics and ethics in economic analysis are always challenged by welfare considerations. Indeed, the assessment of personal satisfaction has forced economics to re-evaluate moral and ethical conclusions. The result is a tumultuous past for welfare economics. Controversy among economists over the function of welfare is the reason behind the transition from welfare economics. Assessment of individual and collective well-being lies behind the paradigmatic welfare economy. However, the options for collective welfare are conceivable in terms of modern social welfare. Economic efficacy and social justice can be reconciled, under specific conditions. Relevant welfare approaches such as the enriched capabilities approach (Aguenane, 2019).

A general equilibrium model study was conducted in Ethiopia to examine the macroeconomic impact of agricultural policies on agricultural growth and farmers' social welfare. To conduct policy simulations, data must be collected to build models based on economic hypotheses and to assess how such models affect farmer welfare and agricultural productivity. The first focuses on irrigation policies that change the intensity of agricultural commodity production, while the second uses technology to increase agricultural output. Both agricultural productivity and the social welfare of farmers are positively affected by the expansion of irrigation. Precision agriculture has substantial and positive effects on agricultural production and productivity, as well as on household income and consumption. These findings indicate that agricultural sector policies must be implemented in conjunction with unidirectional macro policies (Shikur, 2020).

Farmers can handle the challenges of shifting soil, weather, and market conditions, as well as boost productivity and lessen their environmental effect, with the aid of agricultural innovation. Government support is often needed to encourage innovation by providing incentives for producers to experiment with the adoption of cutting-edge practices. In addition to the influence of policy makers, consumer preferences and the benefits of gaining knowledge from the use of new production techniques also help to drive innovation. Analyze manufacturers' decisions whether to experiment with new production methods when faced with uncertainty about their production yields and the benefits associated with learning-by-doing. The findings show that subsidies outperform policies involving taxes and subsidies in producing higher social welfare (Akkaya, Bimpikis, & Lee, 2021).

One of the most established and controversial EU initiatives is agricultural policy. Its interventions vary in scope and character, and also in the extent to which they benefit certain social groups. Combining the Theory of Moves with the partial equilibrium model makes it possible to assess the socio-political acceptability of a reform by guiding future policy adjustments. Many analysts believe that lobbying by beneficiaries is largely responsible for agricultural subsidies. However, other economists argue that support is necessary for the agricultural sector to function as it should. They argue that agriculture is different from other economic activities because agricultural markets are not competitive. The inelastic demand for food and the unpredictable weather of agricultural production, particularly crop production, which causes price fluctuations

in agricultural products and fluctuations in farm incomes, are the primary distinctions from other economic sectors. Initiatives in the agriculture industry primarily aim to achieve food security on a national and international scale. Apart than yielding items for sale, agriculture generates a range of beneficial externalities and public goods, such employment, culture, the environment, and landscapes, that the public should support. This idea represents the ability of agriculture to provide a range of products and services as well as the societal need for them, primarily because public goods are inherently valuable and must be produced in sufficient quantities. Acceptance of policies is crucial for natural resource-related policies, especially those pertaining to agriculture. A significant portion of economic policy should affect all citizens, and they should all help determine priorities that take current issues into account. Furthermore, it is imperative to ascertain which particular group of stakeholders stands to benefit from the instrument and its execution. (Kirylyuk-Dryjska & Baer-Nawrocka, 2019).

The challenges of modern society, along with global crises, are affecting countries around the world, with many people experiencing financial difficulties of varying severity. Osaka University's Center for Urban Resilience Research, Japan, has launched a project that could help to alleviating this situation by linking labor shortages in agriculture to social welfare. The idea is that the agricultural sector that needs labor can offer job opportunities to those who are excluded from the existing labor market. The Japanese government now seek to enhance the agriculture-welfare partnership. The target population is those with various types of social disadvantage, while the practitioners are farmers. This client can then work on the farm under the supervision of a staff member from a social welfare organization. It consists in the process of acquiring autonomous skills in relation to agricultural work. Taken from a movement called Teikei, a community-supported farming system in Japan, the process facilitated through the medium of food provides a clearer understanding (Tsunashima, 2022).

Based on the epistemological and sociological description of several definitions of social welfare theory for refining the research, it can be stated that Social Welfare of Village Farmers and Production Capacity of Agricultural Products in Indonesia can be analyzed by the concept of social welfare theory.

METHODOLOGY

A mixed methods strategy, including qualitative and quantitative methods, is used in this study. The qualitative approach was used because it is consistent with the research objectives of characterizing and understanding phenomena, events, social interactions, attitudes, beliefs, and human perceptions. In situations where a pre-existing theory or concept is still felt to be inadequate to fully reflect the complexity of the subject under study, qualitative research may be used to explore the challenges of the research in more detail. When using a qualitative research approach, the subject and object of the study can witness the words, writings and behaviors that form the descriptive data (Creswell, 2013). This study collected data through observation and documentary evidence. Relevant material was collected from a wide range of sources, including online publications and library records. The data analysis involved three steps: reducing the data, visualizing the data and checking the data using the interactive model. Data reduction involved identifying key information, data visualization involved presenting data and data review involved drawing conclusions about key themes of findings (Miles & Huberman, 1994). In order to gather accurate and trustworthy evidence on the following topics: confirmability, verifiability, credibility and transferability, triangulation based on documentation analysis and observation was used. Triangulation is used to compare the results and to relate credibility to veracity. To help readers understand the findings of qualitative research, transferability shows how the research can be applied to other studies. The report was comprehensive, clear and full of detail. Verifiability could be assessed by looking at the whole research process, as it is possible to follow the procedures and findings, and to show the case study design, identification of data sources, data collection and analysis, and the drawing of conclusions. Verifiability is the impartiality with which the conclusions of the study are acknowledged and agreed (Creswell, 2009).

When a quantitative method is used, problems are studied using real data from a population in order to test theories or to provide answers about the state of the subject being studied. This study used a hypothetical-deductive methodology, where a research model was put forward and tested using quantitative prediction

techniques (Creswell, 2009). This study model combined three factors and predicted how they would relate to each other. Food security, technology use and human resource skills were the three latent variables that were under investigation. Each latent variable will be quantified by means of indicators. There are a number of approaches to the measurement of latent variables, depending on the development of the hypothesis and the variables to be measured. One such approach is to create a research model, which is illustrated in Figure 1 below.

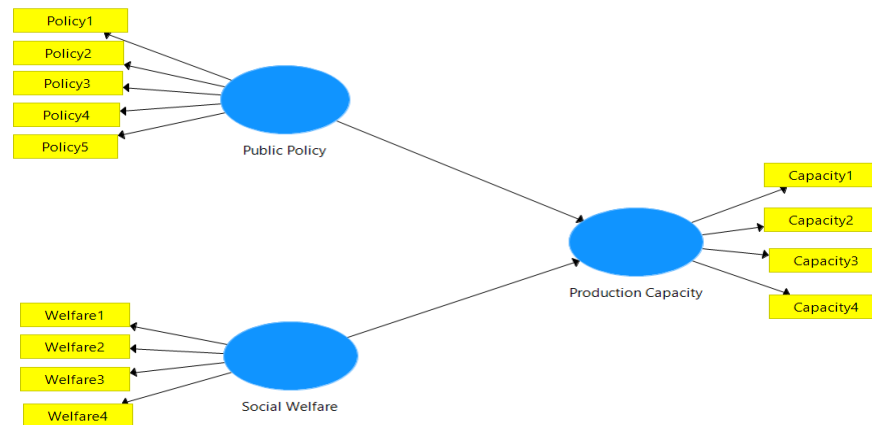


Figure 2. PLS Algorithm

The questionnaire used to gather the data was designed using pre-defined metrics for each dimension. It had five points on a Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree." 500 food security specialists who oversee food security initiatives were given the questionnaire electronically. After processing the 100 responses, a response rate of 20% was obtained, which was deemed sufficient. The data was analyzed using the smartPLS tool and partial least squares (PLS). The variables and participant characteristics were described using descriptive statistics, while the structured equation modelling based on variance was used for inductive statistics. To analyze the routes, three associations were examined using partial least squares. The measurement model, often referred to as the outer model, was used to establish the relationship between latent variables and their indices. Conversely, the structural model, also referred to as the deep model, established the relationship between latent variables. The importance of the relationship in determining the latent variable that needs to be calculated (Ringle, Wende, & Will, 2015). The degree of accuracy to which a concept may be measured precisely and accurately using a measuring tool is known as construct validity. Convergent and discriminant validity are used to evaluate construct validity computations. A construct's internal consistency, or reliability, is the extent to which each indicator points to the same concealed element. Composite reliability and Cronbach's alpha have been used to evaluate reliability computations (Ringle et al., 2015). With a t-statistic value of 1.96 and a probability or alpha value of 5%, the hypothesis test can be run. If the predictive relevance is satisfied by the model's goodness of fit, all the variables have been established as dependable, and all the indicators have been established as authentic. Thus, if the p-value is < 0.05 and the t-statistic is >1.96, the hypothesis will be accepted. (Ringle et al., 2015).

FINDINGS

The quantitative findings derived from the examination of 100 respondents' responses indicate that every variable exhibits reliability greater than 0.7 and every indicator demonstrates convergent validity greater than 0.7. Additionally, social welfare and public policy account for 45.4% of production capacity, with an R-squared value of 0.454.

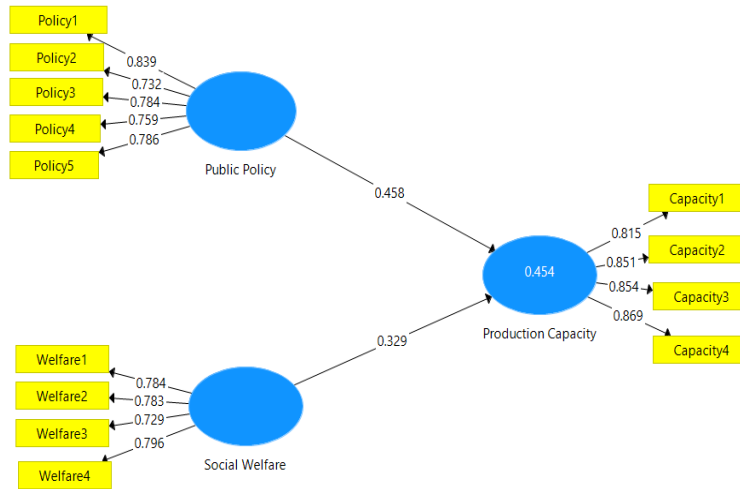


Figure 2. PLS Algorithm

Table 1. Reliability

	Cronbach's ...	Composite...	Average ...
Production Capacity	0.869	0.911	0.718
Public Policy	0.841	0.886	0.610
Social Welfare	0.777	0.856	0.598

According to the results of hypothesis testing (PLS bootstrapping), public policy and social welfare both have positive and significant effects on productive capacity ($T=5.940$ and $T=4.578$).

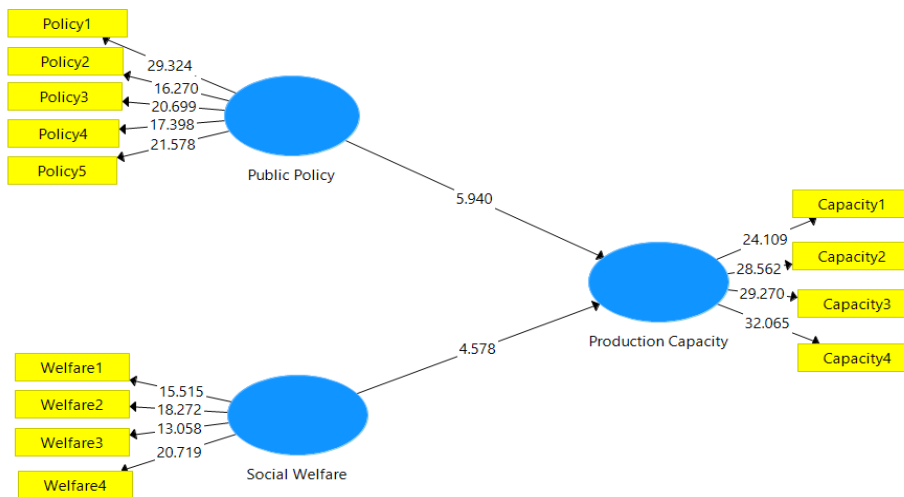


Figure 3. PLS Bootstrapping

Table 2. Hypotheses Testing

	Original ...	T Statistic...	P Values
Public Policy -> Production Capacity	0.458	5.940	0.000
Social Welfare -> Production Capacity	0.329	4.578	0.000

Qualitative Result analysis was conducted based on observation and related documentation. Then use interactive model are data reduction, data display, and data verification to obtain several themes as follows.

Indonesia is an agricultural country with land area reaching 2 million km² and almost all of Indonesia's land area is suitable for planting. So do not be surprised if around 30% of the population works in the agricultural sector. The harvested land area reaches 10 million hectares, the productivity level is 52 quintals/ha and production reaches 55 million tonnes. Therefore, the agricultural sector is still a mainstay for the Indonesian people to meet their needs and improve their welfare.

The first theme. Farming communities sometimes face a variety of complex problems that result in significant losses. Every year these problems arise and the government is called upon to find an urgent solution. Some of these problems include agriculture is underestimated, the crisis of regeneration of young farmers, trade chains that are detrimental to farmers, cultivation techniques are less precise, capital for farmers, and land use change. The detailed mentioned as follows.

Agriculture is underestimated. There are still many who believe that agriculture only leads to hoeing. So that the impression of the agricultural sector is dirty and poor. The perception of the agricultural sector that looks dirty and poor is based on the absence of strong evidence that farming is promising. Not that all farmers are poor. However, most of the farming economy still belongs to the lower middle class.

A youth crisis in farming. The fact that 61% of farmers are over 45 indicates the younger generation's lack of interest in farming. In fact, the younger generation holds the key to the prosperity of the agricultural sector as well as being the next generation. It will be difficult for the nation to achieve food security at the national level if this problem is not addressed at the earliest.

Networks of trade that are detrimental to the farmers. Profit disparity between farmers and traders, with farmers bearing the brunt of the losses. The results are not commensurate with the risks farmers face. These are not encouraging times to be a farmer. Not to mention the losses from bad weather and pest infestations, the returns are negligible. This is why there is a need for an organisation that can streamline the long chain of trade in agricultural commodities. It is hoped that farmers will be able to increase their income by selling their produce directly to customers.

Cultivation techniques lack precision. The precision referred to here is farming with correct and effective techniques. In the field, farming is done based on instinct and experience. In Indonesia, it is uncommon for farmers to come from well-educated families with extensive farming experience. Insect control, for example, or post-harvest processing that is necessary to raise the selling price of the product are examples of appropriate fertilizer applications. In addition, the seeds used as planting material are not certified seeds. Ideally, the government through agricultural institutions complements the knowledge of the farming community by reducing agricultural extension workers. Yes, the program is already running. However, not infrequently also, extension workers do not have enough control over agricultural issues themselves. so that it causes farmers to also be firm with the knowledge they have.

Capital to support farmers. Another common problem faced by farmers is finding money. Because agricultural businesses rely on nature and cannot guarantee results, lenders are reluctant to lend money to them.

Changes in land usage. Many events take place on the island of Java. The dense population and great need have caused agricultural land to be converted into residences and multistory buildings. The low yield and steadily decreasing acreage further limit the farmer's revenue.

The second theme. The challenges faced in the development of the agricultural sector are as follows: 1. The conversion of agricultural land. Land conversion will affect production and productivity of agricultural crops, loss of livelihoods for farmers, and loss of investment in agricultural infrastructure. 2. Procurement of source seeds is still low. 3. Lack of participation of farmers in the maintenance of irrigation networks that have been built. 4. The farmers' ability to master agricultural machinery and technology is still weak. 5. Limited human resources in agriculture, especially extension workers and observers. 6. The high attack of pests and plant diseases. 7. The impact of climate change which causes floods and droughts reduces agricultural production.

8. Increased cost of production inputs, this makes farmers suffer losses in their farming business because the amount of production costs is far greater than the price received. 9. Limited financial resources and difficulties in accessing capital. 10. The management of irrigation networks is not yet optimal, so that the distribution of water is not evenly distributed over agricultural lands. 11. Delays in the distribution of subsidized fertilizers to the retail level. 12. The fluctuating market price of horticultural products, during the main harvest, horticultural products are abundant and cannot be stored, causing low market prices. 13. The horticultural products produced are not continuous, this can be caused by the threat of pests and diseases in plantations, which makes productivity unstable. 14. Low technology adoption at the farmer level. 15. The potential for animal disease transmission is high enough to cause losses.

The third idea. There are opportunities that can be pursued in the agricultural sector are the availability of large enough land, but it has not been used optimally. Some of the land is sub optimal land such as dry land, swamps, and yards. In general, these lands have relatively low productivity, which is caused by several things, such as: lack of water, soil types that are less fertile and not cultivated optimally. Efforts to increase sub-optimal land productivity can be carried out through engineering with the application of cultivation technology innovations and support for road and irrigation infrastructure. It is hoped that these lands can become productive lands, especially for food crops and horticulture. In general, land use is dominated by land use for the agricultural, horticultural, plantation and fisheries sectors where the land use accounts for almost three-quarters of the area. The largest land use is dominated by paddy fields, reaching 40 percent. However, the availability of agricultural land is still very small. If seen from the future potential that horticultural products are very promising to be developed, it is necessary to develop horticulture. Horticultural development can be carried out by utilizing available land which is realized through intensification and extensification activities. In addition to utilizing available land, it is also necessary to make regional growth equitable through horticultural agribusiness which still considers location utilization. Water can be obtained from a variety of sources, and there is enough water potential to suit the needs of food crops and plantations. Numerous farmer organizations have been formed in response to the expansion of the agricultural sector to facilitate the establishment of businesses based on familiarity and shared environmental circumstances. Farmer organizations are becoming one of the agricultural institutions that are paving the road for agricultural growth and making a big difference as major actors. Group development is carried out continuously and is still directed at efforts to increase the ability of farmer groups to carry out their functions, with the hope that farmer groups are able to develop strong and independent farming businesses and farmer institutions.

DISCUSSION AND CONCLUSION

Infrastructure and facility development in agriculture will face several challenges in the future, such as training farmers in the balanced application of organic and inorganic fertilizers, building and maintaining infrastructure related to land and water, expanding access to agricultural finance, and seeking support for agricultural machinery that will boost productivity and add value to farmers' salary. To solve the numerous problems the agriculture industry is currently facing, the agricultural community has to be granted greater authority. As one of the most valuable commodities in the food crop subsector of the agricultural sector, rice producers provide for the needs of the Indonesian people. It also helps to maintain the stability of the US economy.

Law No. 19 of 2013 on the Protection and Empowerment of Farmers facilitates farmer empowerment in Indonesia. Educating, training, extending, and mentoring farmers raises their capacity to carry out better agricultural activities; developing systems and facilities for marketing agricultural products; consolidating and guaranteeing agricultural land; making it easier for farmers to access information, technology, and knowledge; and fortifying farmer institutions are all ways that farmers' bodies are empowered. The execution of farmer group strategies, Minister of Agriculture Regulation No. 82 of 2013, and training and extension programs can all lead to farmer empowerment. Farmer groups are organizations made up of farmers, planters, and breeders who want to develop and grow their particular fields of expertise. They are based on shared interests, comparable economic and social situations, and commodity similarities. Institutions at the farmer level called farmer groups were created to unite farmers in farming. With this empowerment, the chains of poverty and

underdevelopment are being broken, and the layers of society are being given more clout in the power system. Empowerment is a process as well as an objective. A range of actions are taken as part of the empowerment process with the goal of giving marginalized people in society, especially those who are impoverished—more ability or authority. Empowerment as a goal describes the conditions or results that social change ought to produce. More precisely, empowered people are capable, knowledgeable, and able to achieve their basic needs, physical, economic, and social, including self-assurance, goal-setting skills, a means of survival, social interaction, and freedom in completing daily tasks.

The concept of empowerment highlights how crucial politics are to protecting people's interests based on their own resources, directly through democratic involvement and first-hand observation of social learning. "Community empowerment" refers to an approach to economic development that takes social values into account. A few facets of farmer empowerment are as follows: 1. Production, which entails group decision-making over the crops and products to be produced; 2. Resources, encompassing possession, authority to make decisions, and availability of resources for advantageous utilization; 3. Income, which relates to the capacity to oversee and regulate the use of funds; 4. Leadership, which relates to relationships with members and the ease with which members can express aspirations in farmer organizations. The fifth aspect, time, is concerned with how well one can use and schedule time for both work and rest.

A divided strategy can be used to boost agricultural production through agricultural empowerment that is in line with the process moving in the intended direction as follows: 1. Creating favorable conditions for society's maximum development is the process of enabling. Therefore, those who are restricted must be set free so that nothing stands in the way of the community's potential. 2. Strengthening: To address an issue in the community, the knowledge and skills of the community must be developed. so that individuals would have self-assurance in their skills and so build an independent community. 3. Protection, to prevent unfair competition, a dominant group protects itself against a weaker group. 4. Support, or the community's capacity to obtain the assistance required to perform its responsibilities. In order for the community to carry out its responsibilities without feeling disadvantaged, empowerment itself must offer assistance. 5. Maintenance, keeping things balanced so that each person believes he can improve himself.

The first domain, production, illustrates how production empowers farmers by drawing on these five domains. Production is the entire quantity that a farmer's land yields or produces in a single growing season, expressed in kilograms (kg). Hence, productivity is the quantity of output that may be produced per hectare by a production element, such as land area. Rice cultivation frequently requires a wide range of resources, including labor, land, and an abundance of raw materials at every stage of the process. Numerous human requirements cannot be met in the absence of production activity. Living standards have an impact on how well production is run. Therefore, in general, the goal of production is to meet human needs in order to ensure the welfare of farmers.

Most of the agricultural community depend on the crops they get, and to earn a commensurate income, one way to do that is to set up organizations that can actually increase yields among farmers. Fostering farmer groups towards implementing agribusiness systems to increase the role and participation of farmers and other community members by encouraging cooperation between farmers and other stakeholders for agricultural development. In addition, the development of farmer groups should help exploit the potential, more effectively solve the problems of farmer members, and facilitate access to information, markets, technology, capital and different resources. In collective empowerment includes four elements including: 1. Control and improvement of people's lives in the aggregate, is the goal to be achieved; 2. The ability to define problems, map assets, formulate solutions to problems, process and direct social change, is a condition that is a prerequisite for achieving goals; 3. Strength and knowledge of community institutions, is a capacity that must exist and is a prerequisite for realizing the second element; And 4. Development of individual and collective capacity in society, is a process of intervention in empowerment as a basis for growing the third element.

The capacity development given by the empowerment program covers two components, namely mastery of the empowerment program and capacity building of farmer groups. The interventions for developing mastery capacity and implementing of the empowerment program include: 1. Stimuli by providing facilities and

equipment; 2. teaching how to use and maintain with better methods; 3. teaching how to make your own; And 4. Teaching in how to adjust functions based on the required conditions. Interventions in community capacity building include developing human resources and leadership in community organizations. From a leadership perspective, that empowerment will involve leaders who can share power and responsibility with their followers. Such a leadership style will inspire participation in decision-making and trust.

Empowerment of agrarian communities is an effort to make farmers independent by recognizing the potential skills they already have, depending on their area of expertise. Farmer empowerment requires the participation and leadership of empowered farmer groups in agricultural activities. In empowering farmers, there is always good synergy between the two groups which are interconnected between the empowered group and the ruling or authoritative group. The most effective process of empowering farmers is by farmer groups which are the groups closest to farmer supervision. Farming communities who have power or ability are divided as follows: First, they have a form of freedom because they can fulfill their basic needs. That is, they are free to speak and free from hunger, ignorance and pain, said to be a form of farmers who are able to develop themselves and their natural potential. Second, achieving sources of productivity that enable them to increase their income and obtain the goods and services they need for agriculture. And 3. Third, they have the right to manage interests related to agriculture, thereby participating in development processes and decisions that affect them.

In the process of empowering farmers can be done using the counseling process. Counseling, as a social science, studies the mechanisms and processes of change for individuals and society as a whole, empowering you to affect the positive, unexpected changes you want. A person who intentionally shares their knowledge with others in order to help them formulate intelligent decisions is known as a counselor. Empowerment through counseling can lead to sustainable agricultural empowerment, because extension can optimize the potential of the community. The purpose of empowerment is to seek sustainable steps to increase the capacity of powerless people so that they have the autonomous ability to manage all the potential resources they have.

Furthermore, the process of empowering farmers can also be carried out using a program. Empowerment means empowering or seeking empowerment by empowering, or delegating authority to other parties. Empowerment is a difficult task to achieve. Improving farming communities' well-being necessitates an active process involving community organizations, motivators, and facilitators who need to be given opportunities to offer information, expertise, a variety of tools, and access to resource systems.

Based on the analysis and discussion of the research findings, it is possible to draw the conclusion that policy and regulation are necessary in order to achieve the best solution for Indonesia's social welfare of village farmers and agricultural product production capacity. The theory holds that the management of Indonesia's agricultural output and the social welfare of its village farmers should fall under the purview of the legislative and executive arms of government. These divisions oversee creating various rules and guidelines. Future research issues include increasing output capacity and enhancing farmers' income.

REFERENCES

- Abubakar, M. S., & Attanda, M. L. (2013). The concept of sustainable agriculture: challenges and prospects. In IOP conference series: Materials science and engineering (Vol. 53, p. 12001). IOP Publishing.
- Aguenane, N. E. (2019). Assessing well-being: welfare economics, social choice theory, and theory of justice. *International Review of Economics, Management and Law Research*, 1(1).
- Akkaya, D., Bimpikis, K., & Lee, H. (2021). Government interventions to promote agricultural innovation. *Manufacturing & Service Operations Management*, 23(2), 437–452.
- Aljaberi, M. A., Lee, K.-H., Alareq, N. A., Qasem, M. A., Alsalahi, A., Abdallah, A. M., ... Lin, C.-Y. (2022). Rasch modeling and multilevel confirmatory factor analysis for the usability of the impact of event Scale-Revised (IES-R) during the COVID-19 pandemic. In *Healthcare* (Vol. 10, p. 1858). MDPI.
- Assery, S., Tjahjono, H. K., Sobirin, A., & Hartono, A. (2017). Managing conflict in the supply chain (case study: Telecommunication company in Indonesia). *Journal of Engineering and Applied Sciences*, 12(21), 5433–5436. <https://doi.org/10.3923/jeasci.2017.5433.5436>
- Cao, L., Niu, H., & Wang, Y. (2022). Utility analysis of digital villages to empower balanced urban-rural development based on the three-stage DEA-Malmquist model. *Plos One*, 17(8), e0270952.

- Chandra, T. Y., & Riyadi, B. S. (2024). The Differences between the Attorney General and The Corruption Eradication Commission in Prosecuting Corruption Cases in Indonesia: A Legal Analysis. *International Journal of Religion*, 5(2), 267–275. <https://doi.org/10.61707/1phzvtv11>
- Chauhan, N. S., Mohapatra, P. K. J., & Pandey, K. P. (2006). Improving energy productivity in paddy production through benchmarking—An application of data envelopment analysis. *Energy Conversion and Management*, 47(9–10), 1063–1085.
- Corrado, C., & Matthey, J. (1997). Capacity utilization. *Journal of Economic Perspectives*, 11(1), 151–167.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). California, Thousand Oaks: Sage Publication.
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd ed.). California, Thousand Oaks: Sage Publication.
- Dunn, W. (2012). *Public Policy Analysis (Fifth)*. Upper Saddle River: Pearson Education Inc.
- Feriyanto, N., Assery, S., Saleh, C., & Suryaningsum, S. (2017). A little aspect of misbehavior in organization (Case study in Indonesia). *Journal of Engineering and Applied Sciences*, 12(15), 3870–3872. <https://doi.org/10.3923/jeasci.2017.3870.3872>
- Frederickson, H. G. (1976). The lineage of new public administration. *Administration & Society*. <https://doi.org/10.1177/009539977600800202>
- Hamilton, S. H., Merritt, W. S., Carter, L., Chakraborty, A., Cosijn, M., Lim-Camacho, L., ... Ray, D. (2022). Affecting behavioural change through empowerment: conceptual insights from theory and agricultural case studies in South Asia. *Regional Environmental Change*, 22(3), 85.
- Hartatik, W., & Adiningsih, J. S. (2003). Evaluasi rekomendasi pemupukan NPK pada lahan yang mengalami pelandaian produktivitas (levelling off). In *Prosiding Seminar Nasional Inovasi Teknologi Sumberdaya Tanah dan Iklim*. Bogor (pp. 14–15).
- Hendriarti, S. F., Othman, N. A., Arif, S. B., Assery, S., & Jamal, F. N. (2022). Talent Management Analysis of Indonesian Civil Advocates. *Journal of Positive School Psychology*, 6(2), 1106–1116.
- Hermanto, A. B., & Riyadi, B. S. (2020). Constitutional law on the discretionary of prosecutor's power against abuse of power implications of corruption culture in the prosecutor's office Republic of Indonesia. *International Journal of Criminology and Sociology*, 9(16), 763–772. <https://doi.org/10.6000/1929-4409.2020.09.71>
- Hood, C. (1991). All Seasons? the Rise of New Public Management (Npm). *Public Administration*.
- Ikeanyibe, O. M., Eze Ori, O., & Okoye, A. E. (2017). Governance paradigm in public administration and the dilemma of national question in Nigeria. *Cogent Social Sciences*, 3(1), 1–16. <https://doi.org/10.1080/23311886.2017.1316916>
- Indah, D., Astutik, S., Riyadi, B. S., Zauhar, S., & Haryono, B. S. (2024). The Model of Sustainable Human Resource Development to Increase the Capacity of Professional Educators : A Case Study in Indonesia. *International Journal of Religion*, 3538(10), 3747–3760.
- Irham, I., & Mulyo, J. H. (2016). Contribution of agricultural sector and sub sectors on Indonesian economy. *Ilmu Pertanian (Agricultural Science)*, 18(3), 150–159.
- Kapucu, N., Yuldashev, F., & Bakiev, E. (2009). European Journal of Economic and Political Studies Collaborative Public Management and Collaborative Governance: Conceptual Similarities and Differences. *European Journal of Economic and Political Studies*, 2(1), 39–60.
- Kirylyuk-Dryjska, E., & Baer-Nawrocka, A. (2019). Reforms of the Common Agricultural Policy of the EU: Expected results and their social acceptance. *Journal of Policy Modeling*, 41(4), 607–622.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis*. California, Thousand Oaks: Sage Publication.
- Nurhadi, I., Riyadi, B. S., Rozikin, M., & Nuh, M. (2024). The Agricultural Innovation and Capacity Building for Social Welfare of Farmers in Indonesia. *International Journal of Religion*, 3538(10), 3716–3729.
- Ormanovic, S., Ciric, A., Talovic, M., Alic, H., Jeleskovic, E., & Causevic, D. (2017). Importance-performance analysis: Different approaches. *Acta Kinesiologica*, 11, 58–66.
- Ortiz, R., & Peris, J. (2022). The Role of Farmers' Umbrella Organizations in Building Transformative Capacity around Grassroots Innovations in Rural Agri-Food Systems in Guatemala. *Sustainability*, 14(5), 2695.
- Paramasivam, S., Henry, P., Seethapathy, P., & Rajamohan, T. (2022). A Strategic Model for Empowering Farmers by Improving Livelihood Security through Organic Farming Practices in Tamil Nadu, India. *Journal of Agricultural Sciences (Sri Lanka)*, 17(3).
- Perez, J. D. R., Molina, R. I. R., Gomez, G. I. R., Antunez, J. V. V., & Martinez, Y. R. (2019). Elements, resources and capacities of agricultural production units: from a thoughtful analytical approach. *Utopía y Praxis Latinoamericana*, 24(6), 407–417.
- Pingali, P. L., & Xuan, V.-T. (1992). Vietnam: Decollectivization and rice productivity growth. *Economic Development and Cultural Change*, 40(4), 697–718.
- Priyambodo, J. B., Wijaya, A. F., Wike, Sujarwoto, & Riyadi, B. S. (2023a). Implementation of Performance Accountability System for Government Institution: A Case Study in Indonesia. *International Journal of Membrane Science and Technology*, 10(2 SE-), 522–531. <https://doi.org/10.15379/ijmst.v10i2.1288>
- Priyambodo, J. B., Wijaya, A. F., Wike, Sujarwoto, & Riyadi, B. S. (2023b). The Analysis of Performance Accountability System for Government Agency: A Punishment Theory Perspective. *International Journal of Membrane Science and Technology*, 10(2 SE-), 532–541. <https://doi.org/10.15379/ijmst.v10i2.1289>

- Purbiantari, W., Zauhar, S., Suryadi, Hermawan, R., & Riyadi, B. S. (2023a). Leadership and Service in the Police Context_A Qualitative Study. *International Journal of Membrane Science and Technology*, 10(2 SE-), 846–856. <https://doi.org/10.15379/ijmst.v10i2.1390>
- Purbiantari, W., Zauhar, S., Suryadi, Hermawan, R., & Riyadi, B. S. (2023b). Transformational Leadership, Technology Adoption, and Public Service towards Job Competency. *International Journal of Membrane Science and Technology*, 10(2 SE-), 835–845. <https://doi.org/10.15379/ijmst.v10i2.1389>
- Purboyo, A., Riyadi, B. S., Irawan, A. P., & Inkiriwang, F. F. W. (2024). Connecting Strategic Environment and Recruitment Policy: A Case Study of the Indonesian National Army. *International Journal of Religion*, 5(2), 301–315. <https://doi.org/10.61707/mbct891>
- Ringle, C. M., Wende, S., & Will, A. (2015). SmartPLS 3.0. [Http://www.Smartpls.De](http://www.smartpls.de).
- Riyadi, B. S. (2017). Law of agrarian conflict and resolution effort: A claim dispute of Eigendom verponding Land. *International Journal of Law*, 3(80), 88. Retrieved from www.lawjournals.org
- Riyadi, B. S. (2020a). Culture of abuse of power due to conflict of interest to corruption for too long on the management form resources of oil and gas in Indonesia. *International Journal of Criminology and Sociology*, 9(61), 247–254. <https://doi.org/10.6000/1929-4409.2020.09.23>
- Riyadi, B. S. (2020b). Culture of abuse of power in indonesia from the perspective of criminology and law. *International Journal of Criminology and Sociology*, 9(2008), 274–284. <https://doi.org/10.6000/1929-4409.2020.09.26>
- Riyadi, B. S. (2024). Criminal Behavior Politician During Reform in Indonesia. *International Journal of Religion*, 5(7), 582–598. <https://doi.org/10.61707/pgsf5g80>
- Riyadi, B. S., Atmoredjo, S., & Sukisno, D. (2020). Underground space : The concept of property right based on theory of property rights perspective. *International Journal of Law*, 6(2), 26–34.
- Riyadi, B. S., Wibowo, B. R., & Susanti, V. (2020). Culture of corruption politicians' behavior in parliament and state official during reform government Indonesia. *International Journal of Criminology and Sociology*, 9, 52–62. <https://doi.org/10.6000/1929-4409.2020.09.06>
- Riyadi, B. S. (2024). The Sociology Law: Corruption and Abuse of Power in Indonesia. *International Journal of Religion*, 5(7), 599–613. <https://doi.org/10.61707/64fp5z33>
- Rozikin, M., Riyadi, B. S., & Achmadi, E. Y. (2024). The Coastal Community Empowerment in Indonesia as Sustainable Development. *International Journal of Religion*, 3538(11), 3897–3911.
- Rozikin, M., Riyadi, B. S., & Mukminin, N. (2024). Sustainable Development : Driving and Inhibiting Factor Affecting the Clean Water Management System in Indonesia. *International Journal of Religion*, 3538(11), 3855–3869.
- Saleh, C., Assery, S., & Dzakiyullah, N. R. (2018). Supply chain: Partnership, capability and performance (A case study on service companies at Yogyakarta Indonesia). *Journal of Engineering and Applied Sciences*, 13(6), 5391–5394. <https://doi.org/10.3923/jeasci.2018.5391.5394>
- Saleh, C., Assery, S., Sabihaini, & Suryaningsum, S. (2017). Supply chain management in service companies (Case study in Indonesia). *Journal of Engineering and Applied Sciences*, 12(15), 3858–3860. <https://doi.org/10.3923/jeasci.2017.3858.3860>
- Septiyanto, A. N. I. D., Riyadi, B. S., Saleh, C., MM, I. A. H., & DPA, W. S. S. M. S. (2024). Developing Policy and Regulation Using Collaborative Governance to Enhance Democratic Policing. *International Journal of Religion*, 5(11), 742–760. <https://doi.org/10.61707/g76rtz26>
- Shikur, Z. H. (2020). Agricultural policies, agricultural production and rural households' welfare in Ethiopia. *Journal of Economic Structures*, 9(1), 1–21.
- Sinha, S. K., & Talati, J. (2007). Productivity impacts of the system of rice intensification (SRI): A case study in West Bengal, India. *Agricultural Water Management*, 87(1), 55–60.
- Sinulingga, M., Pantja Djati, SuyonoThamrin, Harlina Juni Risma Saragi, Bambang Slamet Riyadi, & Tri Ubayanto. (2023). Antecedents and Consequences of Smart Management Information System for Supervision to Improve Organizational Performance. *International Journal of Membrane Science and Technology*, 10(2 SE-), 816–824. <https://doi.org/10.15379/ijmst.v10i2.1262>
- Susilo, H., Astuti, E. S., Arifin, Z., Mawardi, M. K., & Riyadi, B. S. (2023). The Antecedents of Innovative Work Behavior in Village Owned Enterprises at East Java Indonesia. *International Journal of Membrane Science and Technology*, 10(2 SE-), 879–891. <https://doi.org/10.15379/ijmst.v10i2.1318>
- Syahrudin, Wijaya, A. F., Suryono, A., & Riyadi, B. S. (2023). A Qualitative Study : Critical Success Factors of Public Private Partnerships in Indonesia. *International Journal of Membrane Science and Technology*, 10(2 SE-), 511–521. <https://doi.org/10.15379/ijmst.v10i2.1263>
- Tjahjono, B., Suryono, A., Riyanto, R., Amin, F., & Riyadi, B. S. (2023). The Dynamics and Governance of Civil-Military Collaboration on Disaster Management in Indonesia. *International Journal of Membrane Science and Technology*, 10(2 SE-), 825–834. <https://doi.org/10.15379/ijmst.v10i2.1363>
- Toruan, T. S. L., Gusti, D. P., & Riyadi, B. S. (2023). Human Resource Management of the Army Program in Indonesia. *International Journal of Membrane Science and Technology*, 10(2 SE-), 808–815. <https://doi.org/10.15379/ijmst.v10i2.1261>

- Tsunashima, H. (2022). What the welfare-agriculture cooperation can inherit from the farmer-consumer partnership movement for exchanges of organic produce: on-site implementation and international sharing of its outcome. *Impact*, 2022(4), 9–11.
- Yodkhum, S., Sampattagul, S., & Gheewala, S. H. (2018). Energy and environmental impact analysis of rice cultivation and straw management in northern Thailand. *Environmental Science and Pollution Research*, 25, 17654–17664.
- Zhong, Y.-P., Tang, L.-R., & Li, Y. (2022). Role of digital empowerment in developing farmers' green production by Agro-Tourism integration in xichong, Sichuan. *Agriculture*, 12(11), 1761.