

The Effect of the Zakat Empowerment Program on Youth Farmers' Participation:

A Case Study of Desa Tani Program by Dompot Dhuafa

A Thesis

**Submitted to the Master's Study Program of Economics at the Faculty
of Economics and Business in partial fulfillment of the requirements
for the degree of**

Master of Arts (M.A.)



by:

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UNIVERSITAS ISLAM INTERNASIONAL INDONESIA

DEPOK

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ABSTRACT

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The declining interest of young people in agriculture not only threatens the sustainability of the agricultural sector but also endangers the livelihoods of farming communities in Indonesia. This research examines the effect of the Zakat Empowerment Program, specifically the Desa Tani Program by Dompot Dhuafa, on the participation of youth farmers in the agricultural sector. This research uses a mixed methods approach, combining quantitative surveys with qualitative interviews and document analysis. The quantitative analysis uses the Mann-Whitney U test to compare the perceptions and outcomes of youth farmers who participated in the program with those who did not. The qualitative analysis involves thematic analysis of interviews with youth farmers from both groups, program administrators, and community leaders to gain deeper insights into the effect of the program. In addition, the Analytic Network Process (ANP) is used to assess the relative importance of various program interventions in attracting youth farmers. The findings indicate that the Desa Tani Program has benefited youth farmers' participation in agriculture. Program participants showed higher intentions to enter agriculture, increased access to resources such as land, finance and technology, also higher incomes compared to non-participants. The qualitative analysis highlights how Dompot Dhuafa helps youth farmers by providing motivation, resource training, and creating a supportive community environment. Also, the ANP analysis identified strengthening market linkages and local institution as important interventions for Dompot Dhuafa to attract youth farmers. Based on these findings, this research offers recommendations to Dompot Dhuafa and other zakat management institutions to improve the effectiveness of their empowerment programs. These recommendations include strengthening market linkages, increasing access to resources, addressing social and cultural barriers, leveraging technology and innovation, and establishing a robust monitoring and evaluation system. The research concludes that the Desa Tani Program serves as a model for encouraging youth participation in agriculture and sustainable rural development through zakat-based initiatives.

Keywords: youth participation, agriculture, farmer, Zakat empowerment program, Desa Tani Program, mixed-methods, Analytic Network Process (ANP).

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ABBREVIATION DIRECTORY

ADHB	: <i>Atas Dasar Harga Berlaku (Based on Current Prices)</i>
AHP	: <i>Analytic Hierarchy Process</i>
ANP	: <i>Analytic Network Process</i>
BAZ	: <i>Badan Amil Zakat (Government Zakat Management Organization)</i>
BAZ	: <i>Badan Amil Zakat Nasional (National Level of the Government Zakat Management Organization)</i>
BPS	: <i>Badan Pusat Statistik (Central Statistics Agency)</i>
CEJA	: <i>European Council of Young Farmers (Agricultural Association in the City of Brussels)</i>
CR	: <i>Consistency Ratio</i>
DD	: <i>Dompot Dhuafa</i>
FAO	: <i>Food and Agriculture Organization</i>
FOZ	: <i>Forum Zakat</i>
GDP	: <i>Gross Domestic Product</i>
Gen-Z	: <i>Generation Z</i>
IBM	: <i>International Business Machines</i>
IDR	: <i>Indonesian Rupiah</i>
IFAD	: <i>International Fund for Agricultural Development</i>
IGF	: <i>Indonesia Giving Fest</i>
ILO	: <i>International Labour Organization</i>
IoT	: <i>Internet of Things</i>
KEMENHUT	: <i>Kementerian Lingkungan Hidup dan Kehutanan (Ministry of Environment and Forestry)</i>
KEMENTAN	: <i>Kementerian Pertanian (Ministry of Agriculture)</i>

KPU	: <i>Komisi Pemilihan Umum (Indonesian General Election Commission)</i>
LAZ	: <i>Lembaga Amil Zakat (Non-Governmental Zakat Management Organization)</i>
MoU	: <i>Memorandum of Outstanding</i>
MSME	: <i>Micro, Small and Medium Enterprises</i>
OPZ	: <i>Organisasi Pengelola Zakat (Zakat Management Organization)</i>
P3S	: <i>Pemberdayaan Pertanian Sehat (Healthy Agriculture Empowerment)</i>
P4S	: <i>Pusat Pelatihan Pertanian dan Pedesaan Swadaya (Self-reliant Agricultural and Rural Training Center)</i>
PTPN	: <i>Perusahaan Terbatas Perkebunan Nusantara (State-Owned Plantation Company)</i>
SAPRODI	: <i>Sarana Produksi Pertanian (Agricultural Production Facilities)</i>
SDGs	: <i>Sustainable Development Goals</i>
SPSS	: <i>Statistical Package for the Social Sciences</i>
TV	: <i>Television</i>
UN	: <i>United Nations</i>
UNDP	: <i>United Nations Development Programme</i>
Yoy	: <i>year-on-year</i>
ZIS	: <i>Zakat, Infaq, and Shadaqah (Zakat, Alms, and Donations)</i>
ZISWAF	: <i>Zakat, Infaq, Shadaqah, and Waqf (Zakat, Alms, Donations, and Endowment)</i>

CHAPTER 1

INTRODUCTION

1.1. Background Study

1.1.1. Youth Participation in Agriculture

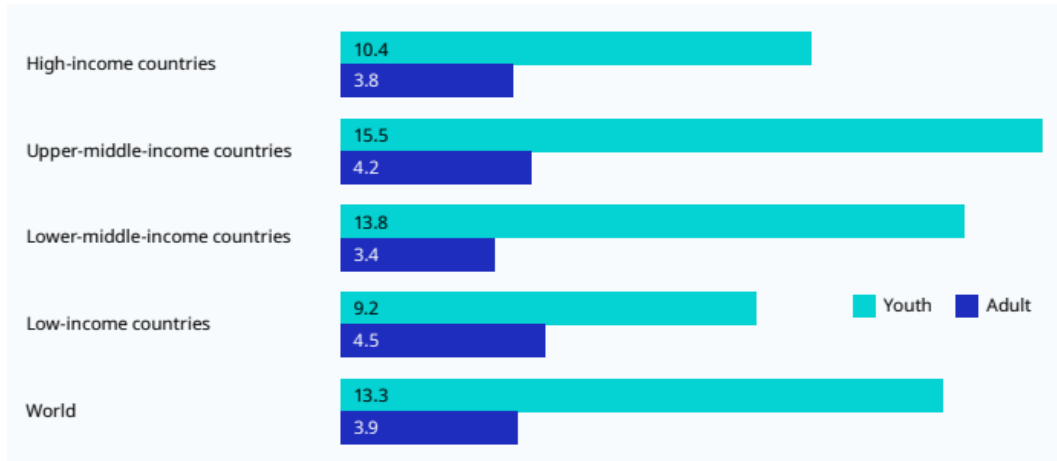
Agriculture's advancement has always been linked to the development of economies around the world. In addition to providing an essential supply of food and raw materials for businesses, agriculture offers an important part in maintaining national food security and economic stability. This important sector promotes economic expansion and serves a major role in reducing poverty in many different nations.

As reported by the Food and Agriculture Organization (FAO) in 2023, agriculture is increasingly making contributions to global gross domestic product (GDP). FAOSTAT (2023) shows a steady upward trajectory from 3.2% in 2006 to 4.3% by 2021, providing employment to approximately 873 million people or 27% of world's workforce - not limited to industrialized nations but especially apparent in emerging nations like Indonesia where farming provides employment to over 90% of people living there and provides the majority with sustenance.

Due to labor's robust participation in farming operations, the World Bank (2007) emphasizes how agriculture's positive effect on GDP growth significantly contributes to alleviating poverty in emerging nations. But measuring sustainability of global agricultural sector requires looking beyond production and economic metrics alone, its long-term viability depends on attracting young individuals into agricultural pursuits (Darmawan et al. 2024). Therefore, prioritizing youth participation within agriculture must become a top priority, as it is part of long-term sustainability (Darmawan et al., 2024).

In numerous nations, youth unemployment and underemployment pose significant challenges, with rural regions frequently experiencing more pronounced issues compared to urban areas (White, 2012; Darmawan et al., 2024). A report from the International Labour Organization 2024 issues a warning over the state of youth employment, showing that the percentage of unemployment among young people is 13.3%, which is nearly 3.5 times as high as the 3.9 percent average for those of adult people (Figure 1.1.1). Nevertheless, several nations have rates that are noticeably higher than those, approaching 30 percent (ILO, 2024).

Figure 1.1.1. Youth and Adult Unemployment Rates (%)



Source: ILOSTAT, ILO modelled estimates, November 2023 (ILO, 2023)

The participation of youth generations in the agricultural sector is a key determinant of its sustainability and progress (Anwarudin, 2020; ILO, 2023; Darmawan et al., 2024). Young people are not just inheritors of agricultural traditions but also agents of change who bring innovation and modernization to agrarian practices (Restyandi et al., 2023; Toumbourou et al., 2023; Pyburn et al., 2015; Gella, 2013). Globally, the participation of young people in agriculture is a focal point as it reflects the direction of the sector's development in the future (Wittman et al., 2021; Girdziute et al., 2022; FAO, 2023).

Girdziute et al. (2022) noted that many young individuals view agricultural work as arduous and lacking prestige, prompting them to seek urban alternatives. However, the youth hold significant sway over the future of food security and sustainable farming. Daudu et al. (2023) found that youth who participate in farming initiatives demonstrate higher productivity and welfare compared to nonparticipants. Because aging farmers tend not to embrace new technologies quickly enough, younger farmers must provide leadership through innovative farming practices (Girdziute et al. 2022).

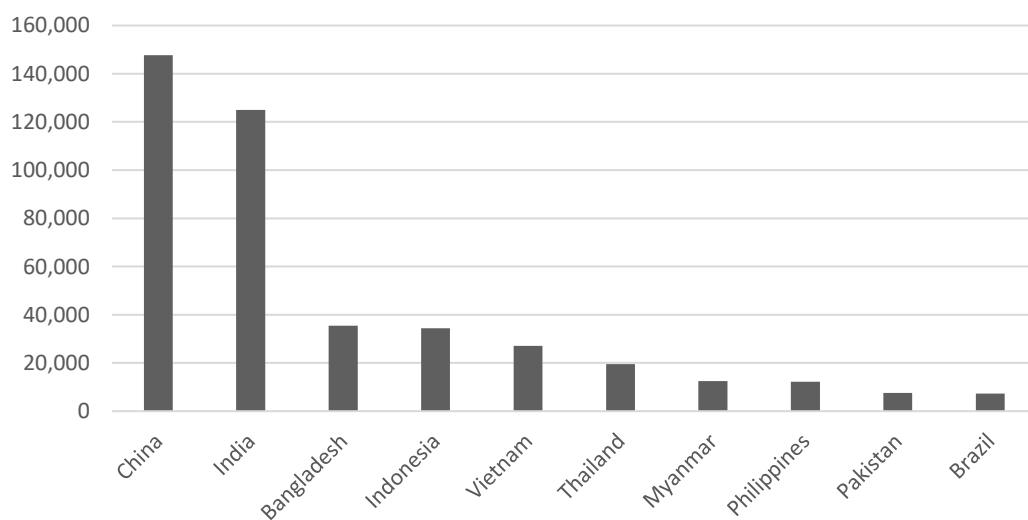
Despite the ongoing expansion of the global agricultural sector, youth engagement in farming has notably dwindled. As per the FAO's 2021 report, only around 24% of the global agricultural workforce is under 35 years old, indicating a decline in youthful interest (FAO, 2021). The younger demographic predominantly seeks opportunities in industrial and service sectors, with agriculture attracting only a minority as their primary vocation (Leavy & Hossain, 2014; Wittman et al., 2021). This underscores the formidable challenge confronting agriculture in enticing youth away from other career paths (Leavy & Hossain, 2014; Wittman et al., 2021).

However, amid these difficulties are encouraging trends, more young people worldwide are showing an interest in sustainable agriculture and modern farming technology (Leavy & Hossain, 2014; Wittman et al., 2021). Agriculture can serve a wider purpose beyond simply working the fields. Instead, it can help strengthen food security, community welfare and environmental conservation (Wittman et al., 2021). Youth participation in agriculture goes beyond individual decisions. Its influence extends into government policies, community roles and support from multiple stakeholders (Leavy & Hossain, 2014; Wittman et al., 2021). Therefore, understanding its dynamics is integral for devising effective strategies designed to protect agricultural sectors worldwide and nationally.

1.1.2. Challenges and Potential of Indonesian Agriculture

Situated between Southeast Asia and Oceania, Indonesia is considered to be a developing nation situated between the Indian and Pacific oceans. Boasting ample agricultural, fishery and marine resources, particularly agricultural varieties, Indonesia has long been recognized for being an agrarian society. In fact, agriculture historically served as its cornerstone. Based on Figure 1.1.2., Indonesia has emerged as the world's fourth-largest rice producer (Statista, 2023; Geeks for Geeks, 2023). However, despite this status, rice production for consumption witnessed a decline in 2023. With a population of approximately 30.90 million, rice production dropped by 645.09 thousand tons or 2.05 percent compared to the previous year's output of 31.54 million tons (Central Statistics Agency, 2023).

Figure 1.1.2. Top 10 Rice Annual Production of Rice (Million Tonnes)



Source: Statista & Geeks for Geeks, 2023

Even in previous years, according to BPS data (2020), the harvested area of rice in Indonesia was 10,677,887.15 hectares with a production of 54,604,033.34 tons in 2019. In 2020, the harvested area of rice in Indonesia was 10,657,274.96 hectares with a production of 54,649,202.24 tons. Based on this BPS data, the harvested area in Indonesia decreased in 2020 compared to 2019, while production and productivity increased in 2020. Additionally, data from the Central Statistics Agency (BPS) indicates a continual decline in the total area of paddy fields, from 7.79 million hectares in 2013 to 7.46 million hectares in 2019. This trend in decreasing paddy field area is also reflected in the reduction of harvested areas.

In October 2023, the Central Statistics Agency (BPS) estimated that the harvested area of rice throughout the year would only be 10.2 million hectares, a decrease of about 480 thousand hectares compared to the harvested area in 2019, and a decrease of 255.79 thousand hectares or 2.45 percent compared to the harvested area of rice in 2022, which was 10.45 million hectares. The conversion of agricultural land for purposes such as housing development, roads, highways, buildings, offices, and other infrastructure, as well as the influence of urban expansion, has been one of the factors contributing to the decrease in rice harvested area, impacting nearly all regions in Indonesia (BPS, 2023).

This reduction in paddy fields directly affects rice production, further widening the rice deficit, considering that national rice consumption reaches 35.3 million tons per year. However, the Central Statistics Agency notes that the agricultural sector contributes 12.40% to the gross domestic product (GDP) based on current prices (ADHB). This figure has also decreased by 0.88% compared to the previous year (year-on-year/yoy). Rice, palm oil, rubber, coffee, and spices are just a few examples of the diverse range of goods produced by the Indonesian agricultural industry (Rachmawati & Gunawan, 2020).

Indonesia's agricultural sector faces numerous hurdles that threaten its productivity and competitiveness, even as a major exporter of agricultural products, despite Thailand and Vietnam being among Indonesia's major competitors in this regard (Gunawan, 2022). Indonesia has significantly higher costs associated with rice production compared to Thailand and Vietnam (Novelino 2022), indicating an enormous discrepancy that requires further investigation to address underperformance within this sector.

One major contributor to this challenge is agriculture's low productivity. Data released by Indonesia's Central Statistics Agency (BPS) in 2022 illustrates this, showing that agricultural productivity lagged far behind global norms, particularly regarding adoption of modern technology and efficient farming techniques. Factors like limited

access for farmers to technologies, financial limitations and an absence of knowledge surrounding modern techniques must all be overcome for improved results (Widiyanti et al. 2018; Rosada 2023; Girdziute 2022 and Aziza 2022).

However, agriculture still holds immense untapped potential that could be utilized to rejuvenate it. An expanding population presents opportunities for agricultural expansion by demanding increased food production and livelihood opportunities. Implementing innovative strategies, such as using digital technology in farming practices to enhance production efficiency and ensure food security can help revitalize this sector (Rafani et al., 2023; Rosada et al., 2023; Aziza, 2022).

1.1.3. Trend of Declining Youth Interest in Farming

As agriculture expands globally, an important concern emerges, declining participation by the youth generation in agricultural pursuits. Although agriculture plays a pivotal role in economic development and food security, their diminishing enthusiasm poses a serious risk to its future (Rosada et al., 2023; Girdziute et al., 2022; Aziza., 2022; Toumbourou et al., 2023).

Nowadays, most farmers are elderly with an average age over 50 (BPS, 2023). Negative associations between agriculture and its perception as dirty, laborious, high risk, and low profit hinder its rejuvenation (Kementan, 2023). Younger generations prefer modern lifestyles and office jobs promising stability and prestige compared to farming (Rosada et al., 2023; Girdziute et al., 2022; Aziza, 2022). Furthermore, lack of access to education and training pertinent to technological advances as well as limited employment opportunities offer decent incomes (World Bank, 2023).

Although Indonesia's economy has long depended upon agriculture for sustenance and livelihood purposes, its role is rapidly diminishing as youth disenchantment with farming presents an ongoing threat to sustainability and food security (Rafani et al., 2023; Rosada et al., 2023; Aziza., 2022).

Factors such as rapid population growth, urbanization, and lifestyle changes have significantly reshaped job preferences among Indonesia's younger demographic. While most Indonesians live in rural areas and depend heavily on agriculture for sustenance (Rafani et al., 2023; Rosada et al., 2023; Aziza, 2022) there has been a notable shift among youth towards sectors associated with digital advancements (Rafani et al., 2023; Rosada et al., 2023; Aziza, 2022). Therefore, it has become clear that more extensive research must take place into its root causes to effectively maintain sustainable operations within

agriculture (Rafani et al., 2023; Rosada et al., 2023; Aziza 2022). Comprehensive investigations must take place into its root causes before making decisions that benefit from these changes occurring.

Indonesia's farmers are in alarming decline; only 28 percent of employees were engaged in agriculture in 2019, down from 65.8 percent in 1976 (Wiyono, 2022). Furthermore, according to the Central Statistical Agency (2023), this trend has continued since 2013 with urbanization and the allure of other careers leading farmers out of farming occupations in increasing numbers; leaving an aging farmer population and few young successors (Arvianti et al. 2019; Rafani et al., 2023).

This demographic shift threatens the agricultural industry's sustainability by diminishing skilled labor, agricultural knowledge, and innovative ideas (Balogun et al., 2022). Given the youths' role in upholding tradition while driving innovation in farming practices, revitalizing their enthusiasm is an urgent and comprehensive effort necessary for maintaining the sustainability of this industry (Rafani et al., 2023; Rosada et al., 2023; Aziza, 2022).

1.1.4. The Importance of Sustainable Agriculture and the Role of the Youth

Wittman et al. (2021) conducted a comprehensive analysis that demonstrated the increasing need for sustainable agriculture due to globalization, population growth, and reduced natural resources. Not only is sustainable agriculture relevant for farmers and stakeholders, but its existence also helps maintain ecosystem balance and global food security. Furthermore, youth participation is integral in furthering sustainable agriculture (Wittman et al., 2021).

Effective strategies for sustainable agriculture management are vital to meeting the challenges posed by the agricultural industry and guaranteeing its long-term viability. By adopting sustainable farming practices, farmers can increase productivity while conserving natural resources and mitigating adverse environmental impacts caused by traditional methods (Octavia et al., 2022). Sustainable agriculture practices not only offer environmental advantages but can also make farming an appealing career option for young people. Integrating modern technologies, digital platforms, and innovative marketing strategies, farming can become an appealing profession (Mardhatillah 2023). Showing economic prospects, entrepreneurial possibilities, and social benefits associated with agriculture may encourage youth to consider farming a rewarding profession (Mardhatillah, 2023).

Agriculture in Indonesia stands as both tradition and economic prosperity, yet as exports flourish the industry's pulse is becoming weaker with an ever-decreasing number of farmers, particularly noticeable among younger demographics. The allure of urban opportunities and evolving perceptions of farming as a profession have led to a critical juncture where the sustainability of agriculture is under threat. The consequences of this lack of interest among the younger generation include (Rosada et al., 2023; Ngadi et al., 2023):

- a. Insufficient skilled young labour force leads to decreased productivity and efficiency within the agricultural sector.
- b. Knowledge and skill gaps between older and younger farmers can hinder the transfer of knowledge and innovation within the agricultural sector.
- c. Inadequate farmer regeneration poses a threat to future food security.

Youth constitute a pivotal segment of the human resources in Indonesia. According to data from the Central Statistics Agency in 2021, the current number of youth (Gen-Z) is approximately 64.90 million or 23.90% of Indonesia's total population. Furthermore, based on data from the Indonesian General Election Commission (KPU) in 2024, the simultaneous elections held on February 14, 2024, were predominantly influenced by the youth as voters in the democratic process. Out of 204,807,222 eligible voters, 55% or approximately 114 million are voices of the youth throughout Indonesia (both Gen-Z and Millennials).

This signifies that youth wield a tremendous influence in shaping the future of Indonesia. The youth act as "Agents of Change" fostering positive transformations within companies, organizations, institutions, and society at large (Restyandi et al., 2023; Toumbourou et al., 2023; Pyburn et al., 2015; Gahung et al., 2017; Ritonga et al., 2022). Therefore, increasing youth interest in agriculture is imperative to guarantee its ongoing progression and development in the years ahead.

Collaborative efforts from the government, private enterprises, and communities are needed to change the negative image and perception of agriculture, enhance access to education and training, create attractive job opportunities, and promote the use of technology and information. However, youth issues often remain a challenge that must be promptly addressed for Indonesia to fully capitalize on the demographic dividend that has been occurring since 2012 and is projected to peak in 2030, as indicated by the doubling of the productive-age population compared to the number of children and elderly populations (BPS, 2022).

1.1.5. The Role of Zakat Management Organizations in Empowering the Youth in the Agricultural Sector

The decline in youth participation in the agricultural sector has broad implications, particularly concerning national food security. With the continuously increasing population, there is a demand for increased food production, and the participation of youth is important in achieving this goal. The sustainability of the agricultural sector is not merely an economic issue but also encompasses social and environmental dimensions. Ensuring the continued existence of this sector requires engaging the youth, encouraging them to join agriculture, and providing conditions conducive to their development.

As youth play an integral role in realizing the sustainability of agriculture, this study investigates Zakat as an empowerment strategy. Agriculture sustainability often falls in line with principles of Islamic philanthropy embodied by Zakat practices. Legally, Article 17 of Law 23 of 2011 highlights the significance of Zakat management organizations for collecting, dispersing, and using Zakat funds through careful planning and coordination (Sari et al., 2013; Yoeliyanti, 2022). Zakat Empowerment Programs present an intriguing avenue of exploration within agriculture, offering legal mechanisms governing Zakat management organizations with an opportunity to integrate agricultural sustainability and Islamic philanthropy.

The significance of Zakat Management Organizations (OPZs) in empowering youth within the agricultural sector is paramount, particularly given the current economic and social landscape of Indonesia. OPZs have considerable potential to enhance the well-being of young individuals involved in agriculture through comprehensive and sustainable empowerment initiatives (Baznas, 2023). Their programs encompass skills development, agricultural education, and access to business capital; all essential ingredients to effectively meet challenges within this industry.

The role of OPZs in empowering youth in agriculture extends beyond economic considerations to encompass social and educational dimensions. Through Zakat initiatives, OPZs offer entrepreneurial training and mentorship services, encouraging the growth of leadership and management abilities among youth farmers. This holistic approach not only enhances productivity but also establishes leadership positions within the agricultural sector. By adhering to sustainable agriculture principles, OPZs encourage youth farmers to see farming not simply as an income source but as an occupation that strives for environmental stewardship and social equality. Through the proactive involvement of

OPZs, it is anticipated that youth in agriculture will emerge as catalysts for positive change, contributing to the sustainability of agriculture and society as a whole.

1.2. Problem Statement

Indonesia's agricultural sector faces an imminent challenge: declining participation by youth farmers (Widiyanti et al., 2018; Toumbourou et al., 2023). This trend carries serious ramifications for its long-term sustainability and productivity as well as food security and economic progress; challenges such as an aging agricultural workforce or limited access to land must be overcome to entice young people back into agriculture (Ngadi et al., 2023). Over recent years there has been an exponential decline in youth farmers due to various causes (Rosada et al., 2023; Girdziute et al., 2022; Aziza, 2022):

- Agriculture can often be perceived as dirty, risky work with low pay.
- Youth face difficulty accessing agricultural education and training as well as capital and technology for agriculture projects.
- Youth typically prefer other work opportunities that they find more appealing and promising than traditional employment in certain sectors.

Toumbourou et al. (2023) noted the declining participation of young people in agriculture is a threat to national food security, so Zakat Management Organizations (OPZ) step in to combat this trend and channel Zakat, alms and donations (ZIS) from donors directly to recipients through distribution networks and empowerment initiatives (Priatmoko & Putri, 2022), including initiatives involving empowerment within agriculture itself.

OPZ's Zakat Empowerment Program shows promise in drawing youth farmers to the agricultural field. It offers young individuals interested in farming many benefits, such as education and training to enhance agricultural knowledge and abilities, access to business capital for starting or expanding farm ventures, introduction of modern agricultural technology that improves farming practices, and mentoring/guidance services to provide necessary assistance when running farming enterprises.

Even with its immense potential, implementation of the Zakat Empowerment Program presents difficulties. Program variety may cause youth confusion when selecting their most suitable option while lack of coordination among OPZ entities can result in duplication and inefficiency. Furthermore, an absence of systematic program evaluation impedes the accurate assessment of its success in drawing youth towards agriculture without accurate and measurable data.

1.3. Purpose of Study

This research seeks to analyze factors affecting youth participation in agriculture and assess the Desa Tani Program by Dompot Dhuafa. By studying its effect on decisions made and livelihood aspirations among youth farmers, its strengths and weaknesses become clear, providing valuable information regarding ways future programs might better meet them.

This comprehensive analysis offers invaluable insight into how the program can be tailored to better address the needs and aspirations of youth farmers. The research seeks to contribute to development of more effective strategies for fostering youth participation in agriculture, not just for Dompot Dhuafa but for similar initiatives across Indonesia.

1.4. Research Questions

Aligned with the above purpose of study, the research addresses several specific research questions as detailed here:

- a. To what extent do the Zakat Empowerment Program by Dompot Dhuafa influence youth farmers' decisions to participate in the agricultural sector in Indonesia?
- b. What are the main challenges and opportunities associated with the Zakat Empowerment Program by Dompot Dhuafa in promoting youth participation in the agricultural sector?
- c. Which process/role is the most important and critical aspect of Desa Tani Program in attracting youth farmers?

1.5. Research Gap

While previous studies have highlighted the decline in youth participation in Indonesian agriculture, there is a significant gap in understanding of the specific role that Zakat Management Organizations (OPZs) play in attracting youth farmers to participate in agriculture. Existing research has explored youth participation in agriculture, the role of OPZs in agriculture sector, and the Zakat Empowerment Program designed for youth. However, no research has comprehensively investigated the interplay between all three elements concurrently: youth participation, the agricultural sector, and Zakat Empowerment Program by OPZs. Here are the details:

- Some studies (Zidana et al., 2020; Geza et al., 2021; Is et al., 2021; Rafani et al., 2022; Ngadi et al., 2023; Mulema et al., 2021; Pyburn et al., 2015; Gahung et al.,

2017; Ritonga et al., 2022; Ayinde et al., 2016; Magagula & Tsvakirai, 2020; Widiyanti et al., 2018; Gella, 2013; Lucchesi & Proctor, 2012; Zhong et al., 2023; Rosada et al., 2023; Daudu et al., 2023) examined youth participation and the agricultural sector, but do not consider the potential influence of the Zakat empowerment programs.

- Other studies (Ranti, 2009; Hakim, 2015; Susilawati, 2016; Maisaroh & Herianingrum, 2019; Farhatidini, 2019; Widyatutik et al., 2021; Sani & Hamzah, 2021; Delila, 2022; Rakhmawati, 2024) examined agricultural sector and OPZs, but do not focus specifically on Zakat Empowerment Program designed for youth.
- A separate group of studies (Muhammad et al., 2018; Ghazali et al., 2021; Muhammad et al., 2022) examined the Zakat Empowerment Program designed for youth, but do not focus on the agricultural sector.

1.6. Significance of Research

This research provides significant value to various stakeholders, particularly OPZs that aim to utilize Zakat funds effectively so as to foster youth involvement in agriculture. The findings can inform them as to how best adjust their program in order to address youth farmers' needs and aspirations more adequately. This research also adds to knowledge by providing an in-depth exploration of factors affecting youth participation in agriculture, specifically within the Zakat empowerment program. Furthermore, the research offers suggestions to enhance the effectiveness of Zakat empowerment programs and similar initiatives in attracting youth participation to agriculture. Additionally, its goal is to foster such participation by improving relevance and effectiveness of such initiatives within an agricultural context.

By identifying the most effective program interventions, this research can empower young people and advance their livelihoods in agriculture. Interventions include providing youth farmers with necessary knowledge and skills that increase productivity and income potential, increasing access to essential resources like capital, land and technology in order to address entry barriers, as well as encouraging youth entrepreneurship within agriculture.

Benefits of this research should extend beyond academia to various stakeholders. For the government, its findings could offer valuable insight into formulating more effective policies to encourage youth involvement in agricultural sectors. For Zakat management organizations, the research offers advice and recommendations in designing

more relevant and effective Zakat empowerment program to attract youth interest in the agricultural sector. For researchers, the findings provide a stronger foundation for future investigations into youth participation in the agricultural Zakat empowerment program. Moreover, it is anticipated that this study enhances public awareness regarding the significance of the agricultural sector, potentially motivating young individuals to actively participate in it.

1.7. Objectives of the Research

Based on the research questions and identified gaps in knowledge, this research aims to achieve the following objectives:

- To assess the influence of Zakat Empowerment Program by Dompot Dhuafa on youth farmers' participation in the agricultural sector in Indonesia. This objective directly addresses question (a) by examining the program's overall effect on youth intentions.
- To explore the challenges and opportunities associated with Zakat Empowerment Program by Dompot Dhuafa in attracting youth farmers in the agricultural sector in Indonesia. This objective aligns with question (b) by analyzing the program's effect on youth participation in agriculture.
- To identify the program interventions within the Zakat Empowerment Program that are most strongly associated with attracting youth farmers in Indonesian agriculture. This objective fulfills question (c) by focusing on specific program features linked to positive youth farmer outcomes.

1.8. Research Object

This study investigates the effect of the specific interventions within the Zakat Empowerment Program by Dompot Dhuafa on youth farmers' participation in the agricultural sector. It focuses on program location and explores how these interventions influence youth farmers' participation in agricultural sector. Here are the details:

- Object of research:
 - Youth Farmer Participation in the Desa Tani program location
- Subject of research:
 - Dompot Dhuafa as the one implementing Desa Tani Program

The study aims to understand how this program functions and its role in influencing youth farmers' participation. This includes examining the program interventions and how they interact with the factors' youth farmers consider.

1.9. Scope and Limitations

Table 1.9. 1 Scope and Limitations

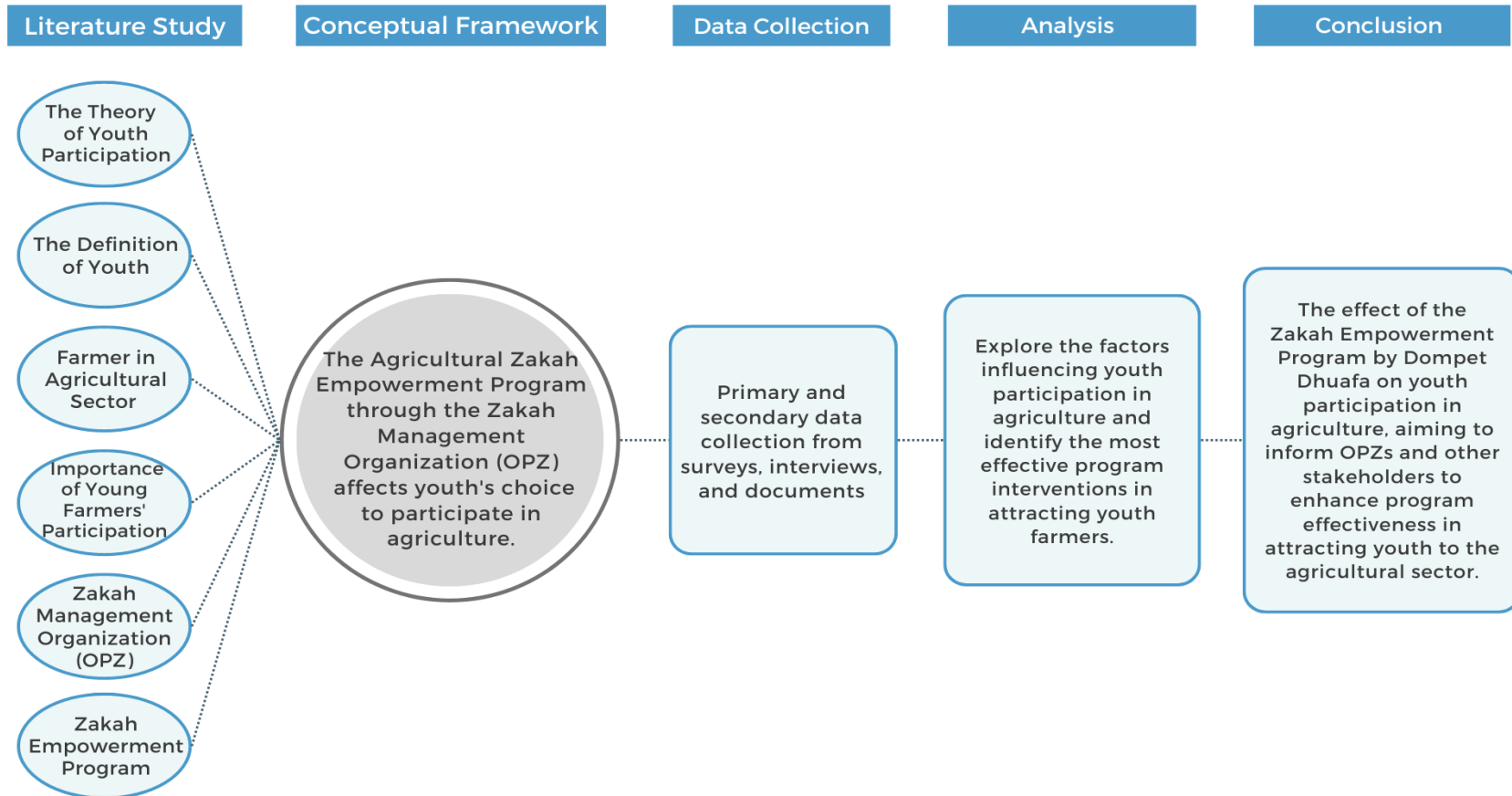
Aspect	Scope	Limitations
Target Population	Youth farmers participating in Desa Tani Program and who do not participate in the program but reside in surrounding areas of Lembang, West Java.	Findings may not be generalizable to all youth farmers in Indonesia.
Geographical Focus	Geographically limited to program locations within Lembang, West Java, Indonesia	The research does not cover other program locations in Indonesia.
Programmatic Focus	<ul style="list-style-type: none"> • Interventions by Desa Tani Program. • How these interventions influence youth participation in agriculture. 	The study focuses on a single program, and its findings may not apply to other Zakat Empowerment Programs.
Timeframe	Program's effect on youth participation within the data collection period.	The study may not capture the long-term effects of the program.

Source: Author's data processing

1.10. Research Framework

The initial stage in the research framework entails establishing a theoretical foundation, which is succeeded by the development of a conceptual framework, followed by data collection, analysis, conclusion, & recommendation phases (Figure 1.10.1.).

Figure 1.10. 1 Research Framework



Source: Author's design

CHAPTER II

LITERATURE REVIEW

In order to better understanding of the subject matter, a literature review provides as both a theoretical background for the study and an important tool for defining the research questions (Kumar, 2011), specifically focusing on the participation of youth farmers in the agricultural sector through the Zakat empowerment program.

2.1. The Theory of Youth Participation

Participation refers to the active involvement, engagement, and inclusion of individuals in various activities, programs, decision-making processes, and initiatives within their communities or organizations (Head, 2007; Cornwall, 2008). It involves giving individuals a voice, agency, and opportunities to contribute, collaborate, and make meaningful contributions based on their interests, skills, and experiences. Participation is not merely about being present or passive involvement but entails active participation, where individuals have the opportunity to express their opinions, share their perspectives, and take on roles that empower them to shape outcomes, influence decisions, and drive positive change. Participation refers to procedures in which stakeholders have influence and collaboratively monitor development initiatives, decisions, and resources that affect them (UNDP, 1997; Head, 2007). Engaging in participation has potential to improve efficiency and effectiveness of investments, foster democratization, and empower those involved (Cornwall, 2008; Cleaver, 1999).

Youth participation is a term used to describe the active and meaningful engagement of young individuals in decision-making processes that impact their lives, communities, and society (Checkoway, 2011; Saito & Sullivan, 2011). Beyond formal political participation, youth engagement also extends to the social and cultural spheres, where young individuals can contribute to the shaping of societal norms, values, and practices. It involves giving young people the chance to contribute with enthusiasm, assume responsibility, and exhibit leadership qualities while also respecting their input and sharing authority with them (Checkoway, 2011). Youth participation is a critical component of positive youth development, as it provides young people with the opportunity to develop their skills, knowledge, and confidence, ultimately leading to their empowerment and the betterment of their communities (Checkoway, 2011; Case, 2017).

According to the United Nations, youth participation involves the active and meaningful involvement of young individuals across various aspects of their personal,

family, social, economic, and political development (Hopma & Sergean, 2015). It recognizes the valuable insights, perspectives, and experiences of young people as important contributions to decision-making processes at all levels, supported by structures and systems put in place by adults. Youth participation serves as a comprehensive approach and recommended practice to address the diverse needs of youth, including those considered vulnerable, and ensure their meaningful involvement (Wheeler & Thomas, 2011).

Toumbourou et al. (2023) emphasize that young individuals demonstrate resilience and adaptability in facing various challenges within the agricultural sector. Pareek (1985) defines role as actions taken by an individual that meet expectations established by a group within a social framework. Within community empowerment, youth play various roles including social controllers, moral pillars and agents of change (Toumbourou et al., 2023; Pyburn et al., 2015; Gahung et al., 2017; Ritonga et al., 2022).

In their capacity as social controllers, youth contribute to enriching farmers' knowledge, developing accountability mechanisms, raising environmental consciousness and expanding participation. As moral pillars, young individuals demonstrate care for communities, particularly farmers, and the environment, serving as exemplary figures for farmers. Also, as agents for change, youth help in raising farmers' awareness of agricultural issues through the dissemination of information and the conduct of training sessions (Gella, 2013; Pyburn et al., 2015; Ritonga et al., 2022; Toumbourou et al., 2023; Restyandi et al., 2023). In the context of this research, youth participation signifies the active and meaningful engagement of young individuals in the agricultural sector, specifically within the framework of the Zakat Empowerment Program.

Regarding the labour ethic which protects children from hazardous and exploitative work, ILO Convention 138 & 182 set the minimum working age at 18. This research acknowledges this ethical consideration which targets the youth beyond the legal minimum working age. Aligning with the youth definition in the previous section, this study covers the range from the minimum age at 18 to the maximum age at 43.

2.2. The Definition of Youth

The literature demonstrates that several academics have given diverse definitions to the term "youth". The United Nation (UN) describes youth as every person between the ages of 15 and 24 (Lloyd, 2005). But this definition was developed for statistical consistency across countries and limits youths to specific ages, thereby marginalizing those

under the age of 15 and over 24, yet who might still require necessary and tailored focus and support (Zidana et al., 2020).

Youth mark the transition between childhood and adulthood, including engagement in labour markets, gender dynamics, educational pursuits, marital statuses, legal autonomy and independence from older household members (Pyburn et al., 2015). Furthermore, it involves self-perceptions shaped by society standards and cultural influences; youth can often be associated with increased propensities for risk taking as well as openness to change (Wynn et al., 2001; Bonnieux et al., 1998).

Youth may mean different things depending on the focus and demographics of each country and organization that defines it. Leavy & Smith (2010) consider this age range to span 12 to 35, while IFAD (2014) extends it even further from 8 to 35. In contrast, the UN has narrowed this age bracket down to cover those aged 15-24 only. These age parameters for youth exhibit significant variations across countries, particularly developing nations where age ranges may extend into the 30s or 40s. Individuals engaged in agricultural activities often fall within the age bracket of 35 to 41. African Union (2006) defines youth as individuals aged 15-35, while the European Council of Youth Farmers (CEJA, 2017) refers to them as those aged 41 or under actively involved with agriculture and possessing necessary agricultural education credentials.

As specified in the Indonesian Youth Law, those aged 16-30 are officially recognized as youth and represent an essential stage in development and progress for Indonesian citizens. Youth can be defined as individuals ages 16-30 who exhibit energy, creativity, and enthusiasm that they direct toward contributing positively to society. Their contributions towards national advancement include moral influence, oversight of societal affairs, catalyzing transformative change as well as catalyzing moral changes, which demonstrate their inherent role and essential position within the national development framework (Gahung et al., 2017; Ritonga et al., 2022).

Munir's (2023) research indicates two distinct younger generations as pivotal forces driving Indonesia's progress in the digital era, Generation Z and Millennials, are key. Generation Z, born between 1997 and 2012 (BPS, 2022), have grown up immersed in connectivity and information, becoming known for their ingenuity, adaptability, commitment to social and environmental causes as well as being driven entrepreneurs. Meanwhile, Millennials, born between 1981 and 1996 (BPS, 2022), represent an intermediary generation that incorporates traits from both analog and digital eras

(Alimuddin & Poddala, 2023), distinguished by their drive, optimism, pronounced entrepreneurial spirit compared with Gen Z's ingenuity.

Harnessing their technological prowess and social awareness, Generation Z actively participates in activist movements advocating for vital issues while sparking positive transformations. Meanwhile, ambitious Millennials have made noteworthy contributions across a range of fields including the creative industry, technology, and politics, thus helping propel national economic development (BPS, 2022; Munir, 2023; Alimuddin & Poddala, 2023). Youth present an incredible potential for national development progress (Mohamad et al., 2016). Within this study's scope, individuals belonging to Generation Z and Millennials fall under this classification; with their ages spanning 13-43.

2.3. Farmer in Agriculture Sector

According to Somjai et al. (2020), the agricultural sector in developing countries is still below its potential. The majority of farmers operate on a small scale, limiting their impact. Agricultural practices essentially revolve around subsistence and traditional methods, which yield minimal returns on agricultural investments. In addition, most farming families have large households and income levels that are below the poverty line, so they are unable to adequately support their families financially. As a result, they experience dire living conditions, trapped in a cycle of deep-rooted poverty.

Farming work, commonly called farming or being a farmer, involves caring for and supervising crops and/or livestock with the aim of producing food, fiber or other agricultural commodities (Koul et al., 2022). This work typically involves a variety of tasks, including planting and harvesting crops, managing livestock, and maintaining agricultural land (Dixon et al., 2001). Farmers can operate on large or small farms, using a variety of methods and machinery for crop cultivation or animal husbandry. They are responsible for ensuring the health and productivity of their agricultural resources, and they often have a deep understanding of the land and environment in which they work (Thrupp, 2000). Classifying farmers according to the type of commodity cultivated can be divided into five broad categories, namely food crop farmers, horticulturalists, plantation growers, breeder farmers and forest farmers.

Food crop farmers in Indonesia constitute one of the primary groups of farmers due to food commodities' essential role in fulfilling basic human needs (Barbier, 1989; Rozi et al., 2023). Food crop farmers primarily focus on cultivating plants containing

carbohydrates, such as rice, corn, soybeans and cassava (Barbier, 1989; Rozi et al., 2023). while they may also cultivate other food plants like sweet potatoes peanuts green beans sorghum which reduce risks related to crop failure as well as increasing farmer income (FAO, 2021).

Horticultural farmers are farmers who specialize in cultivating plants rich in vitamins, minerals and fiber, including vegetables, fruit and flowers (Board, 2005; Singh & Malhotra, 2011; Megasari et al., 2023). Horticultural products possess great economic value and play an essential role in food diversification and improving community nutrition (Megasari et al., 2023; Kementan, 2023). Vegetables are one of the main commodities cultivated by horticultural farmers. There is a wide array of leaf vegetables, fruit and tubers such as spinach, kale, tomatoes, chilies potatoes and carrots to name just some examples. Indonesia boasts an abundant selection of fruit species, from tropical favourites like mangoes and bananas to subtropical like apples and grapes (Santosa et al., 2021; Hartanti et al., 2022). Horticultural farmers can cultivate land intensively using cultivation technology like greenhouses, hydroponics or verticuring for increased harvest productivity (Goodman & Minner, 2019; Megasari et al., 2023).

Third, plantation farmers manage crops for industrial production such as palm oil, rubber, coffee, tea and cocoa. (Shinta, 2001; Darmawan et al., 2021), playing an integral part in Indonesian economy both as a source of foreign exchange from exports as well as contributing towards gross domestic product (BPS, 2022). Fourth, breeder farmers specialize in raising livestock specifically geared to meeting society's animal protein requirements while supporting food processing industries (AHAW, 2014; Kementan, 2023). Animal livestock has an important part in meeting society's protein needs and supporting the food processing industry (FAO, 2021).

Lastly, forest Farmers manage forests sustainably to harvest both wood and non-wood products such as wood, rattan, honey and non-timber forest products (Kemenhut, 2019). Sustainable forest management helps protect the environment while also providing income sources to communities around the forest (Fisher et al., 2018). However, all five categories of farmers face various difficulties increasing productivity and welfare such as limited land available to them, climate change impacts on commodity price fluctuation as well as access restrictions to capital technology or market information.

As defined for this research, farmers are defined as individuals or groups actively involved in cultivating and managing horticultural crops such as vegetables, fruit and flowers for consumption or sale. This includes individuals who own or work on a farm,

either independently or in groups, with the aim of producing horticultural products for consumption or sale.

2.4. The Importance of Youth Farmers' Participation

Is et al. (2021), Rafani et al. (2022), Ngadi et al. (2023) and Mulema et al. (2021) present challenges and opportunities on how to attract young people to the agricultural sector. Modernization and urbanization have contributed to a decrease in younger generations' intentions and participation in agriculture-related activities; many youth farmers are leaving rural areas, giving up farming altogether, in search of urban opportunities instead. This trend has raised serious concerns for agriculture's future while creating strategies designed to attract young people (Is et al., 2021; Rafani et al., 2022; Ngadi et al., 2023; Mulema et al., 2023; Mulema et al., 2023; al., 2021).

Zidana et al. (2020) and Geza et al. (2021) conducted research aimed at understanding how the knowledge and perceptions of the younger generation towards agriculture and agribusiness differ between generations, with particular attention paid to understanding what factors drive participation as well as challenges they encounter when participating. Their findings show that many young people hold positive associations with agriculture and are interested in making it their career choice. However, many face barriers related to accessing land, finance, and skills which inhibit participation (Zidana et al., 2020; Mulema et al., 2021).

The Food and Agriculture Organization (2014) has identified key challenges and potential solutions related to youth participation in agriculture. These challenges include limited access to land, unemployment, underemployment, and poverty (FAO, 2014; Rafani et al., 2022). FAO (2014) emphasizes the need for policies and programs that address these obstacles, creating opportunities for young people to get involved with agriculture.

Youth involvement in agriculture can unleash a wave of innovation within this industry. Sandra, one of the young founders of Kebun Kumara in Indonesia, utilizes hydroponic verticulture technology to maximize vegetable production on limited land, thus becoming an urban solution (Dewi, 2020). Sandra created a green space platform that offers community learning while connecting city dwellers closer to nature through urban farming.

Other youth, Andreas Senjaya was one of several young individuals to gain access to capital and boost agricultural productivity by founding a startup company named iGrow, an online platform designed to connect various parties involved in agricultural supply chains (Ihsan, 2021). As of 2018, iGrow has succeeded in employing more than 2,200

farmers on 1,197 hectares of land and obtained more than 500 tons of good and quality peanut harvest (Ihsan, 2021).

Moreover, Gibran Huzaifah of Indonesia founded Asia's inaugural Aqua-Tech startup eFishery as an Indonesian youth in 2013 (eFishery, 2023). Since its conception, its development and success are clear evidence of youth engagement within agriculture sector. eFishery stands as proof of transformative potential of youth participation within agricultural industry. Starting from concerns about inefficiencies in traditional fish farming, Huzaifah developed innovative technological solutions such as eFeeder, an automatic feeding tool based on the Internet of Things (IoT), which revolutionized fish and shrimp feeding practices. The success of eFishery not only increases the productivity and income of cultivators, but also expands market access and financing for them, as well as empowering small cultivators through training and mentoring.

The creativity of youth can also be seen in developing unique agricultural products, such as what Helianti did with Javara, which raised the value of local food products that sells organic produce, with partners being thousands of local farmers throughout Indonesia, even creating a *Sekolah Seniman Pangan*, attended by the farmer's children, fishermen, and Rimba people. Through these schools, she educated these children to help make Indonesia's products known internationally (Javara, 2020).

Apart from that, youth farmer movements such as Petani Muda Keren and Gerakan Petani Nusantara also have an important role in campaigning for sustainable agricultural practices (Hikmia, 2023). With the examples above, it shows that youth are not only capable of bringing significant technological innovation to agriculture, but also prove that they can be the driving force for economic growth and environmental sustainability in this sector.

2.5. The Concept of Zakat & Productive Zakat

Zakat is an essential pillar (the third) of Islam that involves the mandatory giving of a portion of wealth to those in need (Kahf, 1999). The Quran, particularly Surah At-Taubah, verse 60, specifies eight distinct categories of beneficiaries to whom Zakat is allocated, which states in English meaning: "Indeed, Zakat is meant only for the poor, the needy, those employed to administer it, those whose hearts are to be reconciled, for freeing slaves, for those in debt, for the cause of Allah, and for the wayfarer. It is an obligation from Allah. Allah is All-Knowing, All-Wise".

This act of giving is not only a means of redistributing wealth but also serves as a form of worship and spiritual cleansing, as emphasized in the Quranic verse commanding believers to "Take Zakat from their wealth to purify and cleanse them". According to Qaradawi & Kahf (1999), the term "Zakat" literally means to grow, increase, and purify, reflecting its dual purpose of wealth redistribution and spiritual purification. According to Ibn Taymiyyah, paying Zakat can improve both one's soul and wealth of the Zakat payer.

Sany (2019) asserts that Islam recognizes and protects individual ownership of wealth while restricting it in order to prevent concentration among wealthy groups, thus assuring resources do not become concentrated among richer individuals while more marginalized groups remain without access. Islam promotes equitable resource distribution by setting forth laws and guidelines which ensure more even distribution of God-provided sustenance. Regulations stipulated by these statutes include the need to issue Zakat (zakat), carry out charity, provide aid for orphans and the poor, prohibit usury and encourage financial transactions that involve profit sharing. Zakat in Islam is considered to be an act of worship that serves to create socioeconomic justice by redistributing income from rich groups to vulnerable and poor ones (Sadeq 1994). Zakat seeks to reduce concentration of wealth among a few individuals while encouraging fairer distribution of resources by demanding transfers of some portion of income between richer individuals and vulnerable and poorer groups.

Productive Zakat offers an alternative, more sustainable approach to wealth distribution, using Zakat funds in ways which produce sustainable benefits that contribute to economic development (Mahmud & Shah 2009). Mahmud and Shah asserted this approach goes beyond traditional charity giving by investing Zakat funds in projects which create long-term positive change within society.

Proponents of zakat assert that without effective implementation, zakat may not be effective in combating poverty (Mahmud & Shah, 2009). Establishing a fair legal framework to guide productive zakat funding requires consideration of the immediate consumption needs of recipients as well as future self-sufficiency. It is imperative to ensure that zakat funds are used efficiently and effectively to maximize their impact on poverty alleviation and socio-economic development (Zauro et al., 2020; Wahab & Rahim, 2011; Mahmud & Shah, 2009). In the findings of Mahmud & Shah (2009), it was revealed that certain modern academics, such as Mohammad Qutub, advocated the allocation of zakat to community facilities such as hospitals, educational institutions, and even businesses with the aim of improving employment prospects. Abu Zahrah further suggested that zakat could

be distributed to charitable organizations dedicated to caring for the underprivileged. The economic aspect of Productive Zakat is significant because it has the potential to spur economic progress, create jobs, and promote the overall progress of society. The distribution of Zakat funds to productive sectors such as agriculture, industry, and small businesses can create a domino effect on the economy, which ultimately increases productivity, encourages wealth accumulation, and reduces poverty (Shehata, 1989; Imtiaz et al., 2000).

In practice, several Muslim countries have demonstrated the feasibility of Productive Zakat by financing health services, education, and other social welfare projects for the benefit of the poor and needy. By integrating productive aspects into Zakat allocation, Islamic finance can expand its capacity to encourage economic empowerment and improve social welfare in Muslim communities (Mahmud & Shah, 2009). In Indonesia itself, according to Article 27 Part Three of Law Number 23 of 2011 concerning Zakat Management in the Laws and Regulations of the Republic of Indonesia, Zakat funds can be used for productive efforts in order to overcome poverty and improve the quality of Muslims and society as a whole. The utilization of productive zakat efforts is carried out after the basic needs of *mustahik* (zakat recipients) are met.

Zakat distribution is divided into two main categories, namely consumptive and productive. Consumptive zakat is considered less impactful in overcoming poverty because of its short-term impact, lack of sustainable empowerment steps, resulting in less-than-optimal zakat utilization. On the other hand, the distribution of productive zakat is increasingly favoured because of its potential in alleviating poverty through long-term sustainable empowerment initiatives (Firdaningsih & Hakim, 2019).

In building a Productive Zakat framework, it is important to ensure transparency, accountability, and efficiency in the use of Zakat funds. Appropriate mechanisms for monitoring, evaluation, and impact assessment are important to ensure that Zakat is used effectively for its intended purpose. The concept of Zakat and Productive Zakat represents Islam's holistic approach to social welfare, economic development, and spiritual progress. Productive Zakat provides an innovative model for using Zakat funds for sustainable positive change in society and empowering vulnerable communities, while upholding Islamic values of compassion and solidarity among its people.

2.6. Zakat Management Organization in Indonesia

Early Islamic practice in Indonesia included voluntary compliance by individual Muslims fulfilling their charitable obligation through aid delivery within local communities and mosques, religious leaders, or members playing an instrumental role in collecting and disbursing zakat funds to those most in need. In more modern times however, formal channels were increasingly utilized. For instance, in Java 2015 – 2016, there was only limited centralized control for collecting and disbursing funds by religious authorities who then distributed them among needy beneficiaries voluntarily through informal channels (known as informal management in local mosques/religious leaders/members, etc).

Indonesia began formalizing zakat management during Dutch colonial rule during the nineteenth century (Hamidiyah et al., 2020). Under Dutch colonial rule, regulations concerning zakat were included as part of an Islamic policy designed to control religious practices among Indonesia's Muslims. One key player in shaping Dutch zakat policy at that time was Snouck Hurgronje, in which his role was instrumental in shaping institutionalizing collection and administration (Hamidiyah et al., 2020).

At the end of the 19th century, according to Hamidiyah et al. (2020), the Dutch colonial government has established mechanisms to monitor zakat practices, including the issuance of zakat regulations and the involvement of religious officials in zakat administration. Zakat management is carried out directly by *muzakki* (zakat payers) and indirectly through religious figures at the village level and above. This marked a significant shift towards a more structured and environmentally conscious approach to zakat management in Indonesia. The post-independence period from 1945 onwards witnessed further developments in zakat management organizations, with the Indonesian government enacting laws and regulations to formalize zakat collection and distribution (Hamidiyah et al., 2020). The Zakat Management Law No. 38/1999, in particular, provided the legal framework for the establishment of zakat institutions and the standardization of zakat practices across the country. This legislative milestone marked a new chapter in the evolution of zakat management organizations in Indonesia, paving the way for greater institutionalization and professionalization of zakat management. Hamidiyah et al. (2020) stated that some of the earliest and most prominent zakat management institutions in Indonesia were established in the 1990s, such as the Al-Falah Mosque Foundation (Yayasan Dana Sosial Al Falah, established in 1987) and Dompot Dhuafa Republika (established in 1993). The need for formal zakat management institutions in Indonesia arose from the increasing awareness of the importance of zakat in Islamic finance and social welfare. The establishment of the Zakat Management Organization (OPZ) was a response

to the increasing demand for a structured and transparent Zakat collection and distribution system. Various zakat management institutions, including the Al-Falah Mosque Foundation and Dompot Dhuafa Republika, paved the way for the establishment of OPZ by demonstrating the impact of organized Zakat initiatives (Hamidiyah et al., 2020). The Forum Zakat (FOZ) which was established as a formal zakat institution in Indonesia in September 1997 (PEBS-FEUI & IMZ, 2010; Hamidiyah et al., 2020) has an important role as a national zakat institution. FOZ facilitates member networks, mediates zakat issues with the government, disseminates information, coordinates activities, and serves as a consultant on various zakat issues. Initially comprising 150 members at its inaugural congress in January 1999 (PEBS-FEUI & IMZ, 2010; Hamidiyah et al., 2020), FOZ was tasked with drafting Zakat management legislation in Indonesia. Currently, as of 2024, FOZ has 194 members.

The evolution of Zakat development in Indonesia, according to Hamidiyah et al. (2020), witnessed the enactment of Zakat Management Law no. 38/1999, succeeded by Zakat Management Law no. 23/2011, the latest legislation serving as the legal foundation for Indonesian Zakat management organizations. This law authorizes governmental and non-governmental Zakat management organizations (referred to as BAZ and LAZ) to collect Zakat and other Islamic alms (*infaq*, *sadaqah*, grants, and *wasiah*). These organizations must incorporate advisory, supervisory, and executive bodies within their organizational hierarchy. The allocation of Zakat funds primarily targets meeting the essential needs of *mustahik* and financing productive endeavours contributing to meeting basic needs. Conversely, non-Zakat revenue is predominantly channeled towards productive ventures.

Per the initial Law, Number 38 of 1999 on Zakat Management in Indonesia, Zakat management is overseen by government sanctioned Zakat management organizations (Indonesia, 1999), with the formation, organizational structure, and responsibilities of BAZ and LAZ determined by ministerial decree. BAZ operates at national, provincial, district, and regency levels, maintaining a cooperative, consultative, and informative relationship. The BAZ Advisory Board comprises both community and governmental representatives, while the organization's Executive Board encompasses advisory, supervisory, and managerial functions. Additionally, Zakat management can be conducted by non-governmental Zakat management organizations (LAZ) adhering to ministerial regulations. BAZ and LAZ are obligated to uphold accountability to the government (Indonesia, 1999; Hamidiyah et al., 2020; Sari et al., 2013).

2.7. Zakat Empowerment Program

In accordance with Ritonga et al. (2022), empowerment stands as a development paradigm centered on the people, aiming to lift communities out of poverty and instill self-sufficiency. It adopts a grassroots approach to uplift community life sustainably (Ritonga et al., 2022). The goal is to boost the well-being and expertise of agricultural farmers, thereby aiding in the enhancement of Indonesia's agricultural productivity. In Islam, empowering communities is seen as a means to fulfill the Islamic aspiration of creating a caring society where individuals support one another (Sany, 2019). As specified by Sany (2019), the empowerment measures, mentioned in the Quran (Ar-Ra'd[13]:11; Al-Jumu'ah [62]:10), include continuous self-development, promoting Zakat and infaq programs, providing guidance and skills education for the community, and refraining from economic behaviors prohibited by religion, such as hoarding wealth and monopolizing resources.

The Zakat Empowerment Program is a social and economic initiative that utilizes Zakat funds, which are Islamic almsgiving, to support community development, poverty reduction, and economic empowerment (Fitri, 2017). Zakat (one of the five pillar of Islam) is considered an obligation of all Muslims if their wealth meets certain thresholds (Razak, 2020). Through the Zakat Empowerment Program, many people hope to overcome social and economic challenges by offering financial and non-financial support for individuals and communities experiencing difficulty, with long-term socio-economic effects being prioritized (Munazila 2020).

These programs typically include a range of initiatives, such as micro-enterprise funding assistance, vocational training, income-generating projects, and microfinance initiatives, to support individuals and communities in building sustainable livelihoods and achieving economic independence (Alifah, 2022; Yazid, 2015). These programs can provide technical assistance, mentoring, and psychosocial support to build the capacity and resilience of program beneficiaries (Yazid, 2015). Zakat Empowerment Programs are designed to create pathways for individuals to achieve long-term economic independence and empowerment, with a focus on addressing vulnerabilities and promoting sustainable development. These programs are implemented by zakat management organizations, which are responsible for collecting and distributing zakat funds, and involve collaboration with government stakeholders, non-governmental organizations, and other partners to maximize impact (Khudzaifah, 2023).

The program activities are usually categorized based on various empowerment areas, such as economic, social, health, education, and da'wah (the five pillars of zakat), to

meet the various needs of the community and encourage holistic development (Ummah, 2022). The Zakat Empowerment Program is an important component of Islamic philanthropy and is considered an untapped resource to address pressing humanitarian problems (Pericoli, 2023). The program's potential in economic empowerment and poverty alleviation has been recognized (Mulyanti et al., 2023; Ridwan et al., 2020; Sany, 2019), and there have been calls to establish a Forum Zakat to improve the effectiveness and coordination of Zakat management organizations in Indonesia (Pusparini et al., 2018).

2.8. Dompot Dhuafa and Desa Tani Program

Dompot Dhuafa or Dompot Dhuafa Republika, is a non-profit institution managed by the Indonesian people, which is committed to raising the social dignity of underprivileged communities through ZISWAF resources (Zakat, Infaq, Sedekah, Wakaf), as well as other halal and halal resources, such as funds sourced from individuals, collectives, corporations, and institutions (Sari et al., 2013). As a social-based private entity, Dompot Dhuafa operates independently from direct government supervision, and its activities are driven by community needs and social welfare goals (Sari et al., 2013). Dompot Dhuafa is known for its community economic empowerment programs that aim to address economic and social challenges through Zakat funds and other forms of Islamic social finance. Dompot Dhuafa also works towards alleviating poverty through various cultural approaches including philanthropic activities and prophetic social entrepreneurship initiatives.

According to Sari et al. (2013), the Republika newspaper's journalists were the ones who started Dompot Dhuafa by actively collecting 2.5 percent of their salary as Zakat. This movement began in the group of collectively empathetic journalists, many of whom had direct experience with the poor and thus frequently met the wealthy. This Zakat administration is currently simple and traditional. The *mustahik* that they regularly come across while working in the field received the funds immediately. They founded a foundation in 1993 intending to gather Zakat from the public, particularly through readers and journalists of the Republika daily, distributing it to eligible recipients, and continue to progress each year (Sari et al., 2013).

Dompot Dhuafa, a prominent Indonesian humanitarian organization, stands at the forefront of fostering economic empowerment among the dhuafa, a term encompassing the impoverished and marginalized. Their meticulously crafted programs aim to elevate the lives of these individuals, instilling self-sufficiency and dignity. The success of these endeavours' hinges on the unwavering dedication of program facilitators, the backbone of

Dompot Dhuafa's on-ground operations. Remarkably, a majority of these facilitators are driven by the unwavering spirit of youth, 91.3% from 23 people (in 2022), such as:

- a. Ade Rukmana – Desa Tani Lembang West Java,
- b. Dila - Oyster Mushroom Cultivation Central Java,
- c. Rahman & Cici - Kopi Solok Sirukam Singgalang,
- d. Eki Sepriandi - Hydroponic Melon Cultivation Singgalang,
- e. Ismail & Ramli - Kopi Sinjay Sulsel,
- f. Sulkifli - Lesehan Macca Sulsel,
- g. Udin - Starfruit Cultivation East Java,
- h. Hamdan - Healthy Warung & Aloevera Cultivation East Java,
- i. Geges - Madinah Zone MSME House,
- j. Imam – Teras Madinah Madinah Zone,
- k. Rini - Djampang Tourism,
- l. DD Farm throughout Indonesia:
 - i. Gusti - DD Farm Waspada,
 - ii. Erma & Suwardi - DD Farm Riau,
 - iii. Habib – DD Farm Lampung,
 - iv. Anggun – DD Farm Banten,
 - v. Agus – DD Farm West Java,
 - vi. Arif - DD Farm Central Java,
 - vii. Yayak - DD Farm Yogyakarta,
 - viii. Deni & Fadhil - DD Farm East Java

Dompot Dhuafa's commitment to youth leadership aligns perfectly with the critical need to cultivate a new generation of agricultural professionals. By empowering young facilitators and fostering positive attitudes towards agriculture, Dompot Dhuafa is not only uplifting the lives of the *dhuafa* but also laying the foundation for a more sustainable and prosperous agricultural future. The importance of creating an atmosphere conducive to youth participation in agriculture was emphasized in the scoping review. In the review it was found that positive attitudes towards agriculture were correlated with young

individuals' involvement in agricultural initiatives and guidance received from family members involved in agriculture (Geza et al., 2021).

In 2018, Dompot Dhuafa introduced one of Zakat empowerment programs, namely the Desa Tani program, as the economic empowerment program in the field of horticultural agriculture aimed at underprivileged communities, where they are included in the group entitled as beneficiaries who can receive Zakat fund. This program was first implemented in an area of 1.2 Hectare in Cibodas, Lembang, West Java, with the number of the program beneficiaries 12 people. Desa Tani Program is an economic empowerment program for the poor or middle-low-income level in the field of horticultural agriculture with efforts to alleviate poverty through the development of farming. Farmers from *mustahik* status are empowered to manage agricultural land with a mentoring scheme.

In the year of 2020, the Desa Tani program established an *Agronative* Cooperative, a local institution managed by the beneficiary farmers themselves. In fact, all the management of the *Agronative* cooperative are all categorized as a youth (Millennials & Gen-Z). The *Agronative* Cooperative handles various aspects from upstream production to downstream marketing, including absorption of farmers' harvests. The cooperative also provides training and guidance to its member farmers, offering production facilities and other important resources. The involvement of *Agronative* cooperative ensures that farmers receive fair and stable prices for their products, while providing access to wider markets, thereby increasing their income and overall well-being of farmers in the program.

In 2023, it has grown on 10 hectares of land and the number of beneficiaries of the program is 52 families. According to Desa Tani Program Report (2022), there are 70% youth farmers from 52 beneficiaries who are under 40 years old. The Desa Tani Program has even become a reference for the Coordinating Ministry for the Economy in developing the Horticulture Program (Desa Tani Report, 2022). Additionally, Desa Tani Program by Dompot Dhuafa received the Zakat Awards 2022 for Best Economic Program at the Zakat Expo - Indonesia Giving Fest (Dwi & Sari, 2022) and secured the silver award for philanthropy in the Sustainable Development Goals (SDGs) Action Award 2023 event (Gewalti, 2023).

CHAPTER III

RESEARCH METHODOLOGY

In research endeavours, the adoption of a method is needed for addressing research questions systematically. Research entails a systematic activity aimed at processing and deriving conclusions from data through specific methodologies adjusted to resolving encountered problems. To ensure the systematic execution of research, the methodologies employed must align to the object being studied and in accordance with the research objectives to be achieved.

This chapter provides an overview of the study's overarching framework, commencing with a concise portrayal of the research methodology and design, followed by elucidations concerning the methods utilized for primary data acquisition and subsequent analysis. In expounding on the research methodology, the discourse briefly deliberates on the available options before the selection of methodologies and tools most pertinent to achieving the research objectives, while also considering the available resources for conducting empirical investigations. Concluding sections encapsulate the comprehensive discussion, including insights into encountered limitations and challenges during fieldwork.

3.1. Overview of Research Methodology

Research design is key in conducting rigorous research. Research methodology refers to an all-encompassing field with many subfields within it that has its own set of definitions in various scientific circles. According to Saunders et al. (2009) it can be understood as "the theory that governs research procedures", "the science and philosophy that underlies all research efforts" (Adams & Khan 2007) or as "philosophical foundations and guiding principles that drive research" (Dawson 2009). Kothari (2008) describes scientific research approaches as taking a "systematic approach to solving research issues". A scientific research approach may consist of any series of steps or methodologies designed to deliver precise knowledge (Cholid Narbuko 2004), studies can only be considered valid with proper methodology being employed during their conduct.

Even though definitions differ, quantitative and qualitative research methodologies are the two widely known forms of research methodology (Creswell, 2014). Quantitative research emphasizes quantification in data collection and analysis, taking a deductive approach that places emphasis on theory testing rather than theory generation. Qualitative research contrasts quantitative approaches by emphasizing textual data over quantification. Qualitative researchers use an inductive method for theory development (Bryman, 2008).

Generally, quantitative research emphasizes measuring variables & testing hypotheses, while qualitative research emphasizes interpretive or critical social science (Neuman, 2007).

3.2. Research Design

3.2.1. A Case Study Approach

This research investigates the complex relationship between Dompét Dhuafa's Zakat Empowerment Program (Desa Tani Program) and youth participation in the agricultural sector in Indonesia. A case study design was used to explore in depth how the program operates and its effect on youth farmers' participation in the agricultural sector. Unlike traditional experiments with controlled environments, case studies capture the complexities inherent in real-world programs (Yin, 2018). The Desa Tani Program operates within a dynamic social, economic, and cultural context in Indonesia. Examining the program through a case study lens allows us to understand how the program interacts with existing factors that shape youth farmers' decisions about agricultural participation.

According to Yin (2018), a case study approach encourages in-depth exploration. This method allows us to closely examine the design of the Desa Tani Program, the specific interventions offered (financial assistance, skills training, mentoring), and how these interventions influence youth farmers' perceptions and decisions about agricultural livelihoods. Furthermore, the case study design recognizes that program outcomes may be influenced by factors beyond the direct control of the program, such as regional economic trends or the circumstances of individual youth farmers.

3.2.2. Data Collection Method (Triangulation)

In this research, a mixed methods approach was used to answer various research questions regarding the effect of the Zakat Empowerment Program on youth participation in the agricultural sector in Indonesia. This approach used both quantitative and qualitative data collection and analysis techniques. Quantitative data, such as surveys, would allow for the measurement of the prevalence of program participation and its relationship to youth participation in the agricultural sector. Regarding the survey, based on research conducted by Dawes (2008), a 5-point Likert scale was an appropriate choice for this research topic, as it balances simplicity and detail while providing enough response options to effectively capture participants' perceptions. Several studies on youth in agriculture (Zidana et al., 2020; Girdziute et al., 2022; Rosada et al., 2023) also used a 5-point Likert scale, further supporting the use of this scale in this study. On the other hand, qualitative data, collected through interviews and documentation review, offered deeper insights into the motivations,

perceptions, and experiences of youth farmers, which provided context & understanding to the quantitative findings. This approach uses triangulation, the practice of combining quantitative and qualitative data collection methods, to gain a more comprehensive understanding of program effect (Turner et al., 2017). Triangulation refers to the process of using multiple data collection methods to strengthen research findings (Jick, 1979; Torrance, 2012; Turner et al., 2017; Noble & Heale, 2019). By collecting data from multiple sources, quantitative and qualitative methods, this study aims to gain a more complete and nuanced understanding of the research questions. Information collected through the survey on program participation can be strengthened by interview data that explores motivations behind participation and perceived program benefits. Similarly, analysis of interview data is used to identify survey findings regarding program effectiveness.

3.2.3. The Analytic Network Process (ANP) Method

Meanwhile, to answer the third research question, this research uses the Analytic Network Process (ANP) method. ANP is a qualitative-quantitative analysis method developed by Thomas L. Saaty in 1996. The ANP method is an extension and generalization of the AHP method previously developed in 1980, which can be described as a general theory of relative measurement with an absolute scale to solve problems multidimensional in a multi-criteria decision making that determines tangible and intangible criteria based on the assessment of experts in the field (Saaty, 2004; Saaty & Vargas, 2006).

The basic principle of ANP is to structure complex problems into a cluster network framework, build pairwise comparisons, and shift local priorities of elements in the cluster to generate alternatives. The advantage of ANP over other methodologies is that it has the ability to capture a value or view represented by several experts. Thus, ANP can be used to find the main factors that have the most dominant influence and determine their priority order (Ascarya, 2009). The data in ANP is in the form of respondents' assessment variables regarding the problem that is the object of research on a numerical scale. This method is solved by considering the complexity of the problem that is the object of research on a numerical scale (Tanjung & Devi, 2018). The ANP method uses a qualitative approach but also has quantitative analysis tools. ANP is often referred to as combination research or mixed methods, because it involves philosophical assumptions and a theoretical framework. The core assumption of this form of research is the result of integration between qualitative and quantitative data, insights beyond the information provided.

The fundamental premise of this type of research is that combining qualitative and quantitative data produces new insights that cannot be obtained from either type of data separately. The researcher's perspective, which determines which techniques will be integrated, how they will be combined, and why, will always influence the use of a combined qualitative and quantitative approach (Sandelowski, 2000). By incorporating expert judgments and considering the interconnectedness of program aspects, ANP provides a robust and data-driven approach to answering the third research question. It allows the research to go beyond simply identifying important interventions and pinpoint the most critical ones based on the expertise of program stakeholders.

3.3. Research Population

This research targets two distinct populations within the program location:

- **Program Participants Youth Farmers**

The population of the Desa Tani Program in recent year (2024) is 62 beneficiaries. The targeted population of this research study encompasses all youth farmers (Millennials and Gen-Z) within the Desa Tani Program, totalling 34 individuals. This group represents all youth farmers participating actively in the program. The total participation of the program is 62 individuals, including some who do not fall within this definition of youth farmer (Millennials and Gen-Z).

Furthermore, the research sample comprises all 34 youth farmers currently participating in this program, representing 100% of that specific population. All 34 have experienced firsthand what this experience offers them through training courses, financial assistance packages and mentoring opportunities. Their experiences provide insight into how these benefits influence perceptions and participation within agriculture as a sector.

- **Non-Participating Youth Farmers**

This group consists of youth farmers residing in the program location but who have not participated in the Desa Tani Program. They may be aware of the program's existence but have not chosen to participate. Including this group for comparison purposes (as a control variable), to isolate its specific effect on those involved with Desa Tani Program directly and compare views among these outsiders with program participants' perspectives to see where there might be influence of Desa Tani on youth agricultural participation.

This population size is chosen based on the feasibility of conducting surveys and following in-depth interviews while ensuring representativeness within the program location.

3.4. Research Setting

The research was conducted within the specific geographic location where Dompét Dhuafa implements the Desa Tani Program. Targeted programs allow for precise evaluation of their effect on specific youth farmer populations, providing better insight into their effectiveness. There are multiple compelling arguments supporting choosing this location as your program location:

Dompét Dhuafa's Desa Tani Program has received praise from various institutions. This serves as a source of guidance for the Coordinating Ministry for Economic Affairs when creating its Horticulture Program and highlights its effectiveness. Furthermore, this program received the Best Economic Program award at both the 2022 Zakat Award and 2023 SDGs Action Award ceremonies, further emphasizing its potential effects on youth participation in agriculture.

By focusing on one Desa Tani Program location, this research can mitigate external factors that influence youth participation in agriculture and provide a more precise evaluation of its specific interventions for attracting and retaining talent in agriculture.

3.5. Research Participation

This research involved two main participant groups:

- **Youth Farmers:** The core participants are youth farmers in the program location. This includes those actively registered farmers in Desa Tani (34 participants aged 18-43 out of a total population of 62 people), along with comparison youth farmers living nearby but who do not take part. Their participation is essential in collecting data through surveys and interviews that explore their motivations, perceptions, and decision-making processes regarding their participation in agriculture.
- **Program Stakeholders:** To gain a comprehensive understanding of program design and implementation, this research also involved interviews with key program stakeholders. Among them are program organizers from Dompét Dhuafa, representatives from collaborating agribusiness entities, and local community leaders involved in the program. These individuals can provide insights into program objectives, challenges faced, & perceived effectiveness in attracting youth.

By engaging both youth farmers and program stakeholders, the research aims to capture a holistic perspective on Desa Tani Program's effect on youth farmers' participation.

3.6. Data, Collection Method, and Data Analysis

Regarding the data, it encompasses all factual information utilized in compiling insights, while information denotes processed data employed for specific purposes (Arikunto, 2002). Furthermore, the data collection method is a technique used or taken by researchers to obtain data to test research hypotheses. Data has an important position because it is a depiction of the variables studied and functions as a hypothesis testing tool. Research instruments are tools and resources that academics use to gather data to make their jobs simpler and produce better results—that is, results that are more robust, systematic, and easy to interpret. (Arikunto, 2006).

To answer the problems that have been formulated in this study, what must be done to find the answer is to look for data, both quantitative and qualitative data. For this study, data collection was carried out in three ways, namely survey, interview, and documentation review. The following is the data that was explored, along with its source, the collection method and data analysis with its tools.

3.6.1. Quantitative Data Collection (Survey)

- Source 1: A structured survey was administered to 34 youth farmers who participate in the Desa Tani Program by Dompét Dhuafa and 10 youth farmers who do not participate in the program and live around the program location.
 - a. The survey collect data on the following:
 - Demographic information
 - Youth perceptions of the agricultural sector as a livelihood path
 - Youth perceptions to participate in the agricultural sector from economic and social factors.
 - Validating the effectiveness of the Desa Tani Program in attracting youth farmers
 - b. Method: As the survey design, using the 5-point Likert scale, was for a self-administered questionnaire, before respondents andire is distributed, the researcher provide directions and explanations regarding this research and the purpose of this survey to

respondents, and make it possible to clarify questions from respondents.

- c. Distribution: The survey was given to respondents by distributing questionnaires via Google Form.
 - d. Software: Statistical software of SPSS was used to analyze the data.
 - e. Analysis Techniques:
 - Descriptive statistics to summarize demographic information, perceptions, and program participation rates.
 - Mann-Whitney U Test: Considering the Likert scale produces ordinal data, and the two groups are independent, the Mann-Whitney U Test was chosen as an appropriate non-parametric test to test the differences between the two groups (Siegel, 1957; Field, 2013).
- Source 2: A structured survey was administered to the Academician, Zakat practitioner, and Agricultural expert (practitioner).
- a. Participants: A small group which consists of Academician, Zakat practitioner, and Agricultural expert.
 - b. Data: The study use expert ratings to compare the relative importance of different process interventions by Desa Tani Program.
 - c. Method: Semi-structured interviews was conducted to gather experts' judgments on the program interventions. This information was used to populate an ANP decision matrix.
 - d. Distribution: The survey was distributed through targeted WhatsApp personal invitations.
 - e. Software: Data analysis software of Super Decision.
 - f. Procedure:
 - Construction of the ANP Model: In the first stage, the researcher decomposes the problem to be studied. Then the problem is constructed in a model. After the model was completed, the researcher validated the model with expert respondents. This aims to ensure that the model created represents the problem to be researched (Rusyiana & Devi, 2013; Tanjung & Devi, 2018).

- ANP Model Quantification: After the model has been confirmed and its correctness is confirmed, a questionnaire is created and tested. Next, respondents was asked to determine the priorities that are most critical or have an influence on the problem (Tanjung & Devi, 2018).
- Result Analysis: Synthesizing results by inputting respondent questionnaire results into Super Decision software.

3.6.2. Qualitative Data (Interviews)

- Source 1: Semi-structured Interviews with Youth Farmers
 - a. Participants: This group include both youth farmers who have participated in Desa Tani Program by Dompot Dhuafa and youth farmers who do not participate in program and live around the program location.
 - b. Data: The interviews with youth farmers explore:
 - Decision-making processes regarding participating in the agricultural sector (factors influencing their choices, perceived challenges and opportunities).
 - Perceptions of the Zakat Empowerment Program (awareness, potential influence on their livelihood choices).
 - Experiences of program participants (effect of specific program interventions, benefits and drawbacks).
 - c. Method: Semi-structured interviews was conducted with a smaller group of youth farmers. These interviews allow for in-depth exploration of their experiences and perceptions.
 - d. Procedure:
 - Develop an interview guide with open-ended questions.
 - Invite the participant to be interviewed.
 - Conduct the interviews in a private and comfortable setting.
- Source 2: Interviews with Program Administrator (facilitator), *Agronative* Cooperation, and Local Community Figure in the program location

- a. Participants: This group include program administrator from Desa Tani Dompot Dhuafa, *Agronative* Cooperation in the program, and Local Community Figure in the program location.
- b. Data: The interviews with the participants explore:
 - Program design and implementation.
 - Challenges and opportunities associated with program delivery.
 - Perceived effectiveness of the programs in attracting youth farmers in agriculture.
- c. Method: Semi-structured interviews was conducted.
- d. Procedure: Similar to interviews with youth farmers, following the steps mentioned above regarding invitation, informed consent, interview guide development, and confidentiality.

Table 3.6.2. 1 Interview Participants Detail

	Group	Description	Sample Size
Source 1	Youth Farmers	This group consist of youth residing in Lembang, West Java.	13 Interviewees from 44 in total
	a. Program Participant	Actively participated in the Desa Tani Program - Dompot Dhuafa.	8 Interviewees from total 34.
	b. Non-Participant	Residing near the program location but not participated.	5 Interviewees from total 10.
Source 2	Program Stakeholders	This group consist of individuals involved in the program's implementation and operation.	5 Interviewees
	a. Program Administrator	Dompot Dhuafa as Implementor of the Desa Tani Program.	1 Interviewees
	b. <i>Agronative</i> Cooperation	Representative from the cooperation of the Desa Tani.	3 Interviewees
	c. Local Community Figure	Respected individual within the Lembang community.	1 Interviewees

Source: Author's decision

3.6.3. Document Review

- Source: Existing documents related to Desa Tani Program by Dompot Dhuafa. This includes program reports, manuals, and online resources.
- Data: The document review aims to gather information on:
 - a. The design and specific process interventions by the program.

- b. Any available data on program effectiveness or assessments.
- Method: Reviewing documents related to the Desa Tani Program.
- Data Sources:
 - a. Program reports and manuals from Data Center Dompot Dhuafa.
 - b. Relevant research papers or articles on similar program.
- Procedure:
 - a. Document analysis to categorize and extract relevant information.
 - b. Critically evaluate the credibility and reliability of the documents.

3.7. Definition and Operational Variables

The following table presents the operational variables used in this study, including their dimensions, indicators, and data sources.

Table 3.7. 1 Operational Variables

Variable	Indicator	Definition	Source
Youth Farmers' Participation	Intention	Youth farmers' willingness or commitment to actively participate in agricultural activities.	Ridha & Wahyu, 2017; Zhong et al., 2023; Rafani et al., 2023; Widiyanti et al., 2018; Rosada et al., 2023; Girdziute et al., 2022
Economic Factor	Land Availability	The ease with which youth farmers can acquire land for agricultural purposes.	Gella, 2013; Pyburn et al., 2015; Kidido et al., 2017; Rafani et al., 2023; Mulema et al., 2021; Zidana et al., 2020; Geza et al., 2021; FAO, 2021
	Access to Finance	Youth farmers' ability to secure financial resources to start or maintain their agricultural operations.	Lucchesi & Proctor, 2012; Pyburn et al., 2015; Aziza, 2022; Mulema et al., 2021; Zidana et al., 2020; Girdziute et al., 2022; Geza et al., 2021
	Access to Technology	Youth farmers' ability to obtain and utilize modern technologies in their agricultural practices.	Aziza, 2022; Zhong et al., 2023; Rafani et al., 2023; Mulema et al., 2021; Girdziute et al., 2022; Geza et al., 2021

			et al., 2021; Ritonga et al., 2022; Zhong et al., 2023
	Income	The financial gain youth farmers generate from their agricultural activities. (Mostly profits from selling crops or livestock)	Ngadi et al., 2022; Aziza, 2022; Rosada et al., 2023; Rafani et al.,2023; Widiyanti et al., 2018; Girdziute et al., 2022; Ritonga et al., 2022
	Market Accessibility	The ease with which youth farmers can sell their agricultural products, such as: distance to markets and availability of transportation	Lucchesi & Proctor, 2012; Rafani et al., 2023; Mulema et al., 2021; Daudu et al., 2023; Zidana et al., 2020; Geza et al., 2021; Zhong et al., 2023
Social Factor	Youths' Perception of Agriculture	The attitudes and beliefs young people hold about agriculture, encompass views on agriculture's social status, or the perceived challenge & risk associated with farming.	Geza et al., 2021; Ayinde et al., 2016; Magagula & Tsvakirai, 2020; Rosada et al., 2023; Mulema et al., 2021; Zidana et al., 2020; Girdziute et al., 2022; FAO, 2021
	Family Expectation on their next generation	The encouragement young people receive from their families to pursue agriculture as a livelihood.	FAO, 2021; Geza et al., 2021; Rosada et al., 2023; Rafani et al.,2023; Widiyanti et al., 2018
	Access to Information and Training	Youth farmers' opportunities to acquire knowledge and skills relevant to successful agricultural practices.	Geza et al., 2021; Mulema et al., 2021; Daudu et al., 2023; Zidana et al., 2020; Girdziute et al.,2022; Ritonga et al.,2022

	Community Supporting System	The social networks and resources available to youth farmers within their communities.	Verhofstadt&Maertens, 2015; Mulema et al., 2021; Rosada et al.,2023; Girdziute et al., 2022; FAO, 2021
Zakat Empowering Program	Increasing Interest & Knowledge		Desa Tani Report, 2022
	Increasing Skills & Capital Access		
	Increasing Income & Standard of Living		
	Program Satisfaction		

Source: Author's findings

3.8. Research Instrument

In research, research instruments are needed as a tool to obtain research data. Research instruments are used to measure the value of the variables to be studied. When conducting research, the research must use a good measuring instrument, which is called a research instrument. In this research, the instrument used was a questionnaire. Respondents are asked to put a tick mark (√) in the column provided according to the actual situation and this study used a Likert scale with a range 1 to 5.

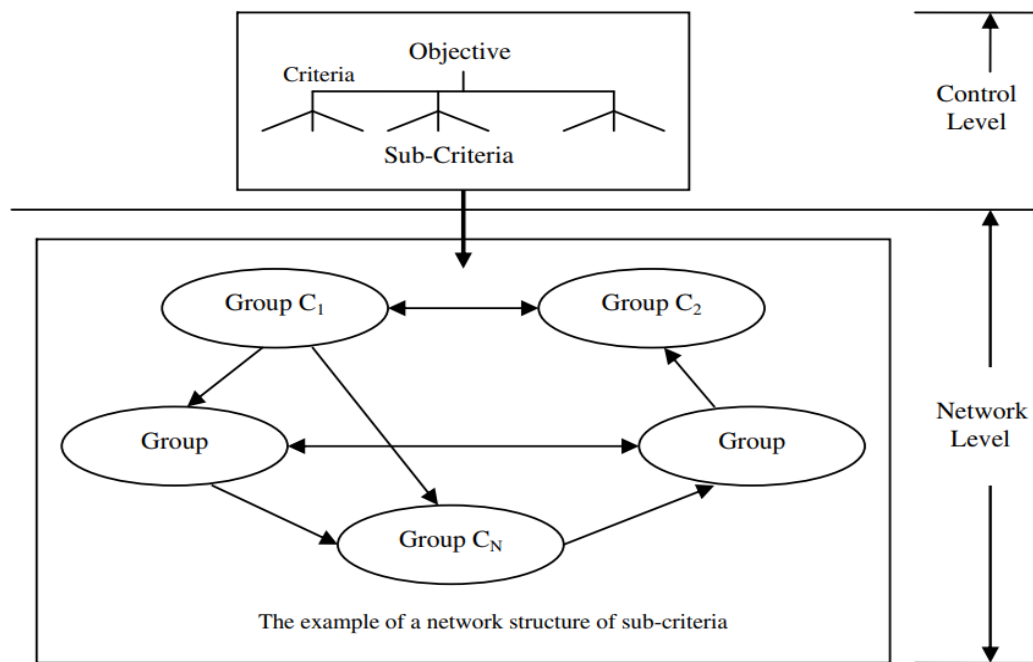
3.9. Analytic Network Process (ANP) Model Design

3.9.1. ANP Theory Overview

Analytic Network Process (ANP) is a decision-making method developed by Thomas L. Saaty (1996) in 1975. Saaty (1996) explained that it is a generalization of the Analytic Hierarchy Process (AHP) and is used to solve decision-making problems that cannot be made hierarchically, as it involves the interaction and dependence of elements of the upper-level elements on the lower-level elements and interrelationships between different criteria at a certain level. AHP excels at prioritizing elements within a single hierarchy. ANP goes beyond this limitation by enabling the modelling of interdependencies between elements across multiple clusters within a network (Saaty, 2004). This comprehensive approach makes ANP valuable for complex decision-making scenarios involving interconnected factors and criteria. ANP is applied in various fields, such as performance assessment, policy analysis, IT systems selection, and distribution services provider selection (Saaty, 2004; Lin et al., 2009).

Figure 3.8.1.1. below, illustrates the structural relationship of ANP method (Wang, 2005; Lin et al., 2009). This system can be divided into two parts. The first part is the control hierarchy, consisting of network relationships between the goal, criteria and sub-criteria. The control hierarchy affects the internal relationships of the system. The second part is the network hierarchy, consisting of network relationships between elements and clusters. The network relationship of ANP method does not only present the relationship between rules, but also calculates the relative weightings (characteristic vectors) of each rule. The result of these computations forms a super matrix. Finally, after the computation of the relationship of the super matrix and the comprehensive evaluations, it is possible to derive the interdependence of each valuation criteria and options and the weighting of priorities. The higher the priority weightings, the more priority will be placed.

Figure 3.9.1. 1 Structural Relationship of ANP Method



Source: Lin et al., 2009.

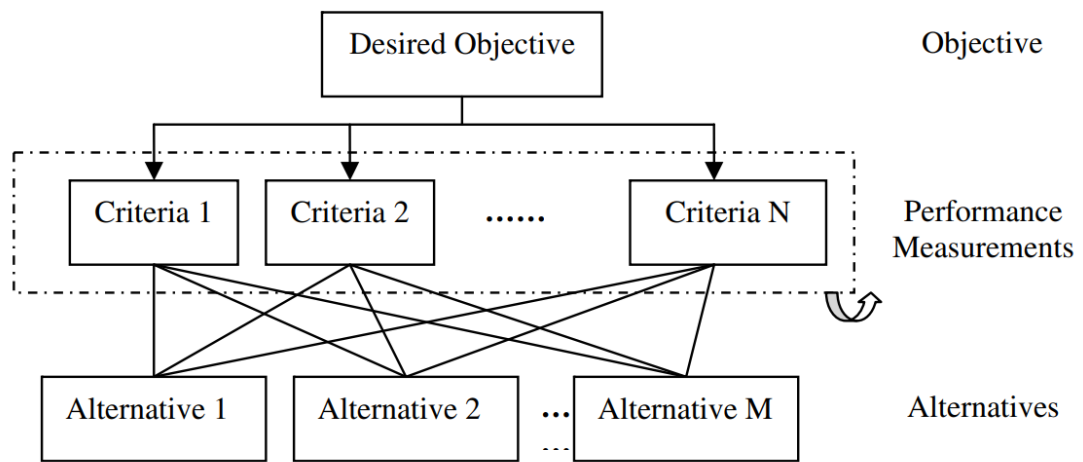
ANP builds upon the core principles of AHP. Decision elements are assessed in pairs based on their relative importance or preference using a fundamental scale. The consistency of these pairwise comparisons is evaluated using eigenvalues and consistency ratios. Inconsistent judgments are identified for refinement to ensure reliable results.

Here are the details of its key principles:

- Pairwise Comparisons: Decision elements are compared in pairs based on their relative importance or preference on a fundamental scale (Saaty's 1-9 scale).

- Eigenvalues and Consistency: The consistency of pairwise comparisons is evaluated using eigenvalues and consistency ratios (CR). Inconsistent judgments are identified for refinement.
- Super matrices: ANP utilizes super matrices to represent the complex network structure. These matrices capture not only comparisons within clusters (inner dependence) but also interdependencies between clusters (outer dependence).

Figure 3.9.1. 2 ANP Network Hierarchy Layer Valuation Model Architecture



↪ Represents inter- relationships of performance measurements

Source: Saaty, 1996.

Furthermore, the ANP framework follows a structured process, which can be broadly divided into the following stages:

1. Problem Structuring:
 - a. Defining the decision context and overall goal.
 - b. Identifying relevant criteria and sub-criteria, forming clusters in network.
 - c. Establishing interdependencies between clusters using directed connections.
2. Data Collection:
 - a. Developing pairwise comparison matrices to assess the relative importance of elements within each cluster and the influence of one cluster on another.
 - b. Utilizing Saaty's scale or an appropriate variant for these comparisons.
3. Data Analysis:
 - a. Calculating the eigenvalues and eigenvectors for each pairwise comparison matrix.

- b. Evaluating consistency ratios (CR) to ensure the validity of judgments.
 - c. If CR exceeds a threshold (often 0.1), revise pairwise comparisons to improve consistency.
4. Synthesis:
- a. Constructing the super matrix by combining all pairwise comparison matrices.
 - b. Calculating limit super matrix powers to arrive at a stable super matrix.
 - c. The eigenvector associated with the largest eigenvalue of the limit super matrix represents the overall priorities for the decision alternatives.
5. Sensitivity Analysis:
- a. Assessing sensitivity of results to variations in judgments and model structure.
 - b. This helps identify critical factors and validate the robustness of the decision.

ANP offers several advantages over traditional decision-making methods. It can handle complex interdependencies between decision elements, providing a more comprehensive picture. The flexibility of ANP allows it to accommodate various data types, including quantitative and qualitative information. The structured framework guides decision-makers through a clear and systematic process. Additionally, the use of pairwise comparisons and super matrices enhances transparency and facilitates communication of decision rationale.

ANP finds application in a wide range of disciplines. It is used in supply chain management for evaluating supplier selection, prioritizing risks, and optimizing logistics networks. Project management utilizes ANP for resource allocation, risk assessment, and project portfolio selection. Technology selection can benefit from ANP to prioritize alternative technologies based on various criteria while considering interdependencies. Even sustainable development can leverage ANP to assess environmental, social, and economic factors in decision-making.

The work of Thomas L. Saaty is central to the development and understanding of ANP. His seminal book "The Analytic Hierarchy Process (AHP)", in 1980, lays the foundation for AHP, which serves as the cornerstone of ANP. Saaty's book "Decision Making for Leaders: The Analytic Network Process (ANP)" by Saaty and Vargas (2006), delves specifically into ANP, outlining its theoretical framework, applications, and software implementation. Additionally, the Saaty's paper (1999) "Fundamentals of the Analytic Network Process - Multiple Criteria Decision Making with Super matrices"

provides a comprehensive overview of ANP's mathematical underpinnings and its use for complex decision-making.

Furthermore, in terms of sample size, the study by Lin et al. (2009) mentioned that the ANP method does not have a specific minimum or maximum number of expert respondents. However, it is recommended that the number of surveyed experts should not be too much, with a suitable number being 5-15.

This suggests that ANP can be conducted with a minimum of 5 expert respondents, but the exact number would depend on the complexity of the policy issues and the level of detail required in the analysis (Lin et al., 2009). At this point, this research was conducted by 5 expert respondents to collect the ANP data through questionnaire.

3.9.2. Analytic Network Process (ANP) Model Design

This research explores the effect of Zakat empowerment program, particularly the Desa Tani Program by Dompot Dhuafa, on youth participation in agricultural sector. Its program utilizes Zakat fund, the third pillar of Islam, to empower farmers. This research employs the Analytic Network Process (ANP) method to evaluate the relative importance of several Dompot Dhuafa interventions on the Desa Tani program which influencing youth participation in agriculture. The focus of this section study revolves around four main interventions within the Program:

1. Provision of Production Assets

This intervention equips youth farmers with the necessary tools and equipment to enhance their farming operations through the establishment of Saprodi (agricultural production facilities). This includes interventions in providing land (open field/conventional and greenhouse) and adopting technology (specifically smart farming technology).

2. Farmer Development & Assistance

This intervention offers guidance, technical agricultural knowledge transfer, character formation, and support to youth farmers through mentoring from experienced agricultural professionals.

3. Strengthening Market Network

This intervention aims to connect youth farmers with markets and distribution channels, facilitating the sale of their agricultural products.

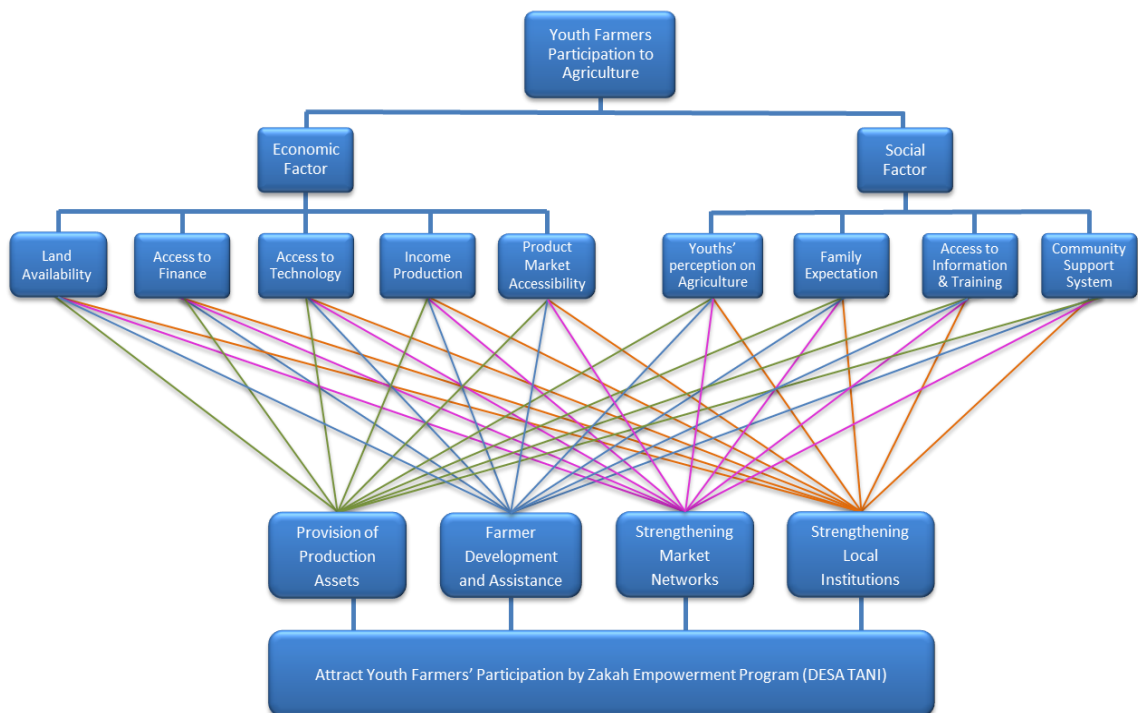
4. Strengthening Local Institution

This intervention focuses on enhancing the capacity of local institutions, particularly through the *Agronative* Cooperation, to better support youth farmers through infrastructure development, resource access, advocacy, and providing protection for farmers' yields.

These four interventions of the program significantly influence youth participation in the agricultural sector through the economic and social factors of each individual.

This section outlines the Analytic Network Process (ANP) model developed specifically to address the research question: "Which process/role is the most important and critical aspect of the Desa Tani Program in attracting youth farmers?" in this research study. The ANP model employs a structured approach to assess the effectiveness of this program's interventions. The following figure is the ANP model framework:

Figure 3.9.2. 1 ANP Model Framework Design



Source: Author's design

Although these interventions aim to promote youth participation, their relative effect remains an area of contention. Therefore, using Analytic Network Process (ANP), this research can effectively determine complex decisions by considering various interdependencies between factors and interactions between variables.

The variables included in the ANP model design above are sourced from the same variables listed in the table 3.7. 1 “Operational Variables”. The aim of conducting the ANP analysis is to identify the most critical processes/roles of the Desa Tani Program interventions in attracting youth interest to participate in agriculture.

This information is particularly important especially for Dompot Dhuafa, as the program Administrator, to refine and optimize the program design to achieve maximum effect. By understanding the importance of each process, Dompot Dhuafa is expected to allocate resources strategically, prioritize intervention accordingly, and eventually empower more youth farmers through agriculture as an environmentally sustainable, dignified means of livelihood.

CHAPTER 4

RESULT AND DISCUSSION

This chapter presents the findings and the discussion from the data collected through surveys, interviews, and document reviews.

4.1. Results

4.1.1. Quantitative Analysis: Descriptive Statistics

This section presents the descriptive statistics of the quantitative data collected through surveys from 34 youth farmers who participate in the Desa Tani Program by Dompét Dhuafa and 10 youth farmers who do not participate in the program and live around the program location.

Primary data in this research was collected through a questionnaire consisting of four variables, each measured by 4-5 indicators that reflect the construct being measured. Each indicator is operationalized into 3 statement items with a Likert scale, which allows respondents to express their level of agreement or disagreement with the statement. The study population was divided into two independent groups: the first group (n=34) who had participated in the intervention program and filled in all the variables in the questionnaire, and the second group (n=10) who did not participate in the program and only filled in three of the same four variables.

4.1.1.1. Respondent Profile

This research was conducted in Desa Tani, Lembang, Bandung, West Java. From the questionnaire that was filled out by the respondent, the respondent's identity data was obtained. In presenting data regarding the identity of respondents, respondents can be grouped into 2 groups, namely youth farmers participation in the Desa Tani Program and do not participate in the program and live around the program location.

i. Youth Farmers Participating in the Desa Tani Program

The majority of youth farmers participating in the program are Millennials, with a smaller percentage being Gen-Z and Millennial Advanced. Most participants are male, and their educational backgrounds vary, with the most common being senior high school graduates, followed by elementary school graduates and bachelor's degree holders.

Half of these farmers come from farming families and received land through the program, with some also owning or renting additional land. Their income levels before joining the program were predominantly less than IDR 2,000,000, but after joining, their

incomes have increased, with a significant portion now earning between IDR 3.1 - 5 million. Their expenditures also reflect this increase, with most spending between IDR 2.1 - 3 million.

ii. Youth Farmers Not Participating in the Program (living around the location)

The youth farmers not participating in the program are mostly Gen-Z and Millennials, with all respondents being male. Their educational backgrounds are primarily elementary school and junior high school. All of them come from farming families, and their land ownership is divided between owned, rented, and a combination of both.

Their income levels, both before 2018 and 2024 (recent year), are predominantly less than IDR 2,000,000, with a small percentage earning more than IDR 5.1 million, only 1 person and he owns a large land with his father. Their expenditures are mostly less than IDR 2,000,000, with some spending up to IDR 3.1 million.

iii. Comparison between Youth Farmers who Participate in the Desa Tani Program and those who Do Not Participate

The study compares two groups of youth farmers: those who participate in the Desa Tani Program (N=34) and those who do not participate but live around the program location (N=10). This comparative analysis reveals significant differences in demographic aspects such as age, gender, educational level, family background, land ownership status, income, and expenditure, shedding light on the potential effect of the Desa Tani Program on the participating farmers.

1) Age Generation

While the majority of participants are Millennials (52.9%) with the second portion are Gen Z (29.4%), the age distribution of non-participants is less clear due to the small sample size (only 10 people). But, from the data collected through survey, the non-participants predominantly Gen Z (60%), with the remaining being Millennials (40%).

Table 4.1.1.1. 1 Age Generation

Age Generation	Participants	Non-participants
Gen-Z	29.4% (10)	60.0% (6)
Millennials	52.9% (18)	40.0% (4)
Advanced Millennials	17.7% (6)	0.0% (0)
Total	100% (34)	100% (10)

Source: Author's data processing

2) Gender

Gender distribution shows a stark contrast between the two groups. Participants constituted 91.2 percent men while 8.8 were female, while all members in the nonparticipating group are men.

Table 4.1.1.1. 2 Gender

Gender	Participants	Non-participants
Male	91.2% (31)	100.0% (10)
Female	8.8% (3)	0.0% (0)

Source: Author's data processing

The significant gender disparity observed in the Desa Tani program and surrounding areas, with the underrepresentation of female farmers, reflects broader societal and cultural factors that hinder women's participation in agriculture. As highlighted in Kuswardinah et al. (2021), rural women in Indonesia, and many other developing countries, often face limited access to resources, education, and decision-making power, which can deter them from engaging in the agriculture.

Traditional gender roles and expectations also confine women to household chores and caregiving responsibilities, leaving them with little time and opportunity to participate in agricultural programs. The study also emphasizes that women's entrepreneurial knowledge and skills are often overlooked or undervalued. This lack of recognition might discourage women from participating in programs like Desa Tani, which are perceived as being male-dominated and catering primarily to men's needs and interests.

3) Educational Level

Education levels among the participants were noticeably higher than nonparticipants, in which 35.3% have completed elementary education, 5.9% junior high school, 44.1% completed senior high school graduation and 14.7% hold bachelor's degrees or above among participants alone. This distribution suggests that Desa Tani Program attracts individuals with higher educational backgrounds.

Table 4.1.1.1. 3 Education Level

Educational Level	Participants (n= 34)	Non-participants (n= 10)
Elementary School	35.3% (12)	60.0% (6)
Junior High School	5.9% (2)	40.0% (4)
Senior High School	44.1% (15)	0.0% (0)
Bachelor's degree	14.7% (5)	0.0% (0)
Total	100% (34)	100% (10)

Source: Author's data processing

In contrast, 60.0% of non-participants have only completed elementary school, and the remaining 40.0% have junior high education. The higher education levels among participants could be attributed to the program's requirements or the ability of better-educated individuals to seek out and benefit from such opportunities.

4) Family Background

Family background also differs between the groups. Among participants, 61.8% come from farming families, while 38.2% come from non-farming backgrounds. This mix indicates that the program is reaching out to both traditional farming families and those new to agriculture.

Table 4.1.1.1. 4 Family Background

Family Background	Participants (n= 34)	Non-participants (n= 10)
Farmer	61.8% (21)	100.0% (10)
Not Farmer	38.2% (13)	0.0% (0)

Source: Author's data processing

On the other hand, all non-participants come from farming families. This uniformity suggests that traditional farming families may rely on established methods and are less likely to seek new programs.

5) Land Ownership Status

Land ownership status reveals significant differences in access to resources. Among participants, 67.7% use land provided by the program, 14.7% combine program land with owned land, and 17.6% combine program land with rented land. This reliance on program-provided land underscores the importance of such initiatives in granting access to agricultural resources.

Table 4.1.1.1. 5 Land Ownership Status

Ownership Status	Participants (n= 34)	Non-participants (n= 10)
Land from the Program	67.7% (23)	0.0% (0)
Land from Program & Owned Land	14.7% (5)	0.0% (0)
Land from Program & Rented Land	17.6% (6)	0.0% (0)
Owned Land	0.0% (0)	30.0% (3)
Rented Land	0.0% (0)	50.0% (5)
Owned & Rented Land	0.0% (0)	20.0% (2)

Source: Author's data processing

In contrast, non-participants exhibit varied land ownership, with 30.0% owning land, 50.0% renting land, and 20.0% combining owned and rented land. The higher reliance on rented land among non-participants suggests economic constraints that prevent land ownership.

6) Year of Entry the Program

The participants from youth have varying years of entry into the program, with 26.5% joining in 2018, 5.9% in 2020, 17.6% in 2021, 26.5% in 2022, 14.7% in 2023, and 8.8% in 2024. This spread indicates the program's sustained youth participation over the years.

7) Income Before (2018) and After (2023) the Program

Income levels before and after joining the program show notable differences. Before the program, 58.9% of participants earned less than IDR 2,000,000, 35.3% earned in range 2.1 to ≤3 million, 2.9% earned in range 3.1 to ≤4 million, and 2.95% earned IDR 4.1 to ≤5 million. In recent year (2024), income levels improved significantly, with only 2.9% earning less than IDR 2,000,000, 35.3% earning IDR 2.1 to ≤3 million, 32.4% earning IDR 3.1 to ≤4 million, 23.5% earning IDR 4.1 to ≤5 million, and 5.9% earning more than IDR 5.1 million. This income increase underscores the program's positive economic effect.

Table 4.1.1.1. 6 Income Before (2018) and Recent Year (2024) of Program

Income Before The Year of Program	Participants	Non-participants	Income in Recent Year (2024)	Participants	Non-participants
≤2,000,000	58.9% (20)	60.0% (6)	≤2,000,000	2.9% (1)	50.0% (5)
2.1 to ≤3 million	35.3% (12)	20.0% (2)	2.1 to ≤3 million	35.3% (12)	30.0% (3)
3.1 to ≤4 million	2.9% (1)	0.0% (0)	3.1 to ≤4 million	32.4% (11)	0.0% (0)
4.1 to ≤5 million	2.9% (1)	10.0% (1)	4.1 to ≤5 million	23.5% (8)	10.0% (1)
≥5.1 million	0.0% (0)	10.0% (1)	≥5.1 million	5.9% (2)	10.0% (1)
Total Average	Rp2.000.000	Rp 2.400.000	Total Average	Rp3.441.176	Rp 2.500.000

Source: Author's data processing

In comparison, non-participants show less income mobility, with 60.0% earning less than IDR 2,000,000 before the year of 2018, 20.0% earning in range IDR 2.1 to ≤3 million, 10.0% earning in range IDR 4.1 to ≤5 million, and 10.0% earning more than IDR 5.1 million. In the recent year, 50.0% still earn less than IDR 2,000,000, 30.0% earn in range IDR 2.1 to ≤3 million, another 10.0% still earn in range IDR 4.1 to ≤5 million, and the other 10.0% earn more than IDR 5.1 million. The stagnation in income levels among non-participants highlights the lack of external support and opportunities for economic advancement.

8) Expenditure

Expenditure patterns also differ between these 2 groups. Among participants, 41.2% spend less than IDR 2,000,000, 35.3% spend IDR 2.1 - 3 million, 17.6% spend IDR 3.1 - 4 million, and 5.9% spend IDR 4.1 - 5 million. This distribution reflects varied financial responsibilities and lifestyles.

Non-participants exhibit a different pattern, with 50.0% spending less than IDR 2,000,000, 40.0% spending IDR 2.1 - 3 million, and 10.0% spending around IDR 3.1 - 4 million. The higher proportion of lower expenditure among non-participants may indicate tighter financial constraints and less disposable income.

4.1.1.2. Validity Test

Before further analysis (difference test or comparative analysis), validity and reliability tests were carried out to ensure the psychometric quality of the research instrument. The validity of a research instrument refers to its ability to accurately measure the specific concept or variable it is designed to assess (Creswell, 2014). The choice of construct to measure depends on the research design and the goals of the study.

The item validity test is carried out using corrected item-total correlation, testing the extent to which each item correlates with the total score of the variable. Items that do not show a significant correlation ($p > 0.05$) with the total variable score are considered invalid and removed from further analysis (Priyatno, 2010; Ghozali 2016). The results of validity testing for each variable are presented in the table below:

Table 4.1.1.2. 1 Validity Test Result

Variable	Question Item	p-value	Result
Youth Farmers' Participation	1	0.000	Valid
	2	0.000	Valid
	3	0.000	Valid
Economic Factor	1	0.006	Valid
	2	0.015	Valid
	3	0.000	Valid
	4	0.000	Valid
	5	0.000	Valid
	6	0.000	Valid
	7	0.000	Valid
	8	0.000	Valid
	9	0.000	Valid
	10	0.008	Valid
Social Factor	1	0.001	Valid
	2	0.000	Valid

Variable	Question Item	p-value	Result
	3	0.000	Valid
	4	0.000	Valid
	5	0.001	Valid
	6	0.002	Valid
	7	0.027	Valid
Economic Factor & Social Factors who Participate in Program	1	0.001	Valid
	2	0.000	Valid
	3	0.002	Valid
	4	0.000	Valid
	5	0.024	Valid
	6	0.000	Valid
	7	0.000	Valid
	8	0.023	Valid
	9	0.002	Valid
Zakat Empowerment Program	1	0.000	Valid
	2	0.002	Valid
	3	0.000	Valid
	4	0.000	Valid
	5	0.001	Valid
	6	0.000	Valid
	7	0.000	Valid
	8	0.000	Valid
	9	0.000	Valid
	10	0.000	Valid
	11	0.000	Valid

Source: Author's data processing

As each question item in the questionnaire was proven to have a p-value < 0.05, so that the questionnaire items met the validity requirements and can be used in further analysis.

4.1.1.3. Reliability Test

The internal reliability of each remaining variable is tested using Cronbach's Alpha, which measures the internal consistency of items in measuring the same construct (Creswell, 2010). Cronbach's alpha is used to indicate the reliability of the instrument (Creswell, 2010). Alpha Cronbach's value above 0.60 is considered reliable and acceptable index (Nunnally & Bernstein, 1994; Priyatno, 2010; Ghozali 2016). Whereas, variables with a Cronbach's Alpha value of less than 0.60 are considered unreliable and are not used in further analysis. A Cronbach's alpha above 0.60 indicates that the items in a scale are consistently measuring the same underlying construct (Creswell, 2010). Cronbach's alpha

is a measure of internal consistency, assessing how closely related a set of items are as a group. Reliability testing is carried out on items whose validity has been tested. The reliability test results are presented in table 4.1.3. below:

Table 4.1.1.3. 1 Reliability Test Result

Variable	Cronbach's Alpha	Result
All Variable	0.918	Reliable
Youth Farmers' Participation	0.802	Reliable
Economic Factor	0.750	Reliable
Social Factor	0.715	Reliable
Economic Factor & Social Factors (only for who Participate in Program)	0.688	Reliable
Zakat Empowerment Program	0.862	Reliable

Source: Author's data processing

Based on table 4.3, it can be concluded that the questionnaire for all variables is declared reliable. This is proven by the Cronbach's Alpha value for each variable > 0.60 .

4.1.1.4. Mann-Whitney U Test

A comparative analysis was conducted to test the research hypothesis, namely whether there is a significant difference between the group that participated in the program and the group that did not participate in the program on the measured variables. Since the second group did not fill in one of the variables, the comparative analysis was only performed on the three variables that were filled in by both groups.

Given that the Likert scale produces ordinal data, and the two groups are independent, the Mann-Whitney U Test was chosen as the appropriate non-parametric test to examine the differences between the two groups (Siegel, 1957; Field, 2013). According to Siegel (1957) and Field (2013), this test is advantageous because it does not require the assumption of normality of data distribution, making it more suitable for ordinal data and relatively small samples, as in this study. Additionally, the Mann-Whitney U Test has good statistical power for detecting differences between two independent groups.

Considering that the Desa Tani Program is specifically aimed at *mustahik*, the comparative analysis was only carried out on the group of youth farmers who were included in the *mustahik* category. Respondents from the *muzakki* group (3 people) were excluded from the analysis to ensure that the research results reflected the effect of the program on the intended target group. The Mann-Whitney U test results are presented in table 4.1.4. below:

Table 4.1.1.4. 1 Mann-Whitney U Test Result

Variable	Indicator	Group	N	Mean Rank	p-value
Youth Farmers' Participation	Intention	Participate in Program	34	23.28	0.006
		Do Not Participate	7	9.93	
Economic Factor	Land Availability	Participate in Program	34	23.40	0.003
		Do Not Participate	7	9.36	
	Access to Finance	Participate in Program	34	22.94	0.017
		Do Not Participate	7	11.57	
	Access to Technology	Participate in Program	34	24.50	0.000
		Do Not Participate	7	4.00	
	Income	Participate in Program	34	23.93	0.000
		Do Not Participate	7	6.79	
	Market Accessibility	Participate in Program	34	22.26	0.121
		Do Not Participate	7	14.86	
Total	Participate in Program	34	24.35	0.000	
	Do Not Participate	7	4.71		
Social Factor	Youths' Perception of Agriculture	Participate in Program	34	23.38	0.004
		Do Not Participate	7	9.43	
	Family Expectation	Participate in Program	34	20.38	0.486
		Do Not Participate	7	24.00	
	Access to Information & Training	Participate in Program	34	23.74	0.001
		Do Not Participate	7	7.71	
	Community Supporting System	Participate in Program	34	20.56	0.623
		Do Not Participate	7	23.14	
	Total	Participate in Program	34	23.07	0.012
		Do Not Participate	7	10.93	

Source: Author's data processing

The results of the Mann-Whitney U Test show several interesting findings regarding the differences between the group of youth farmers (*mustahik*) who participated in the Desa Tani program (first group) and those who did not participate (second group).

a. Youth Farmers' Participation

Overall, there is a significant difference between the two groups in the youth farmer participation variable ($p = 0.006$). This shows that the Desa Tani program has succeeded in increasing the interest of youth farmers to participate in the agricultural sector. This finding is strengthened by the mean rank of 23.28 for the participating group, which shows that they have higher intentions than the non-participating group (Mean Rank 9.93).

This suggests that the Desa Tani program effectively motivates youth to view agriculture as a viable livelihood. The higher mean rank for participants underscores their stronger commitment to farming, likely due to the support and resources provided by the program.

b. Economic Factor

Overall, there were significant differences between the two groups in economic factors (p value = 0.000). This means that there are differences in perceptions or economic conditions between youth farmers who participate in the program and those who do not. This finding is strengthened by the mean rank of 24.35 for the participating group, indicating that they have better economic conditions than the non-participating group (Mean Rank 4.71).

- Significance Differences
 - Land Availability: Youth Farmers participating in the program find it easier to acquire land for agricultural purposes ($p = 0.003$ with mean rank 23.40) which indicates that the program facilitates better access to land for participants, especially youth farmers, possibly through education about managing the land and facilitating its tools by the *Agronative* cooperation.
 - Access to Capital: Youth farmers participating in the program experience increased access to capital ($p = 0.017$ with mean rank 22.94), possibly as a result of financial support mechanisms provided by the *Agronative* cooperation.
 - Access to Technology: Youth farmers participating in this program have better access to modern agricultural technology and equipment ($p=0.000$, mean rank 24.50). this program has ensured in increasing the accessibility and affordability of technology for them, such as, through training in the use of technology, equipment purchases subsidies, and technology demonstrations in the field.
 - Income: Youth farmers participating in the program have higher incomes from agricultural activities ($p = 0.000$, with the mean rank 23.93). This shows that the participants report higher incomes, suggesting that the program enhances economic stability through increased productivity and market access.

- Non-Significant Differences:
 - Market Accessibility: There is no significant difference exists between the two groups in terms of product market accessibility ($p = 0.121$), as there are many middlemen in locations around the program whose prices are slightly different from market prices. Because of that, the second group somehow do not mind selling their product to the middleman. This suggests that the program interventions may not directly address the issue of distance or transportation to market, or that the interventions undertaken have not been effective enough to change youth farmers' perceptions of the importance of this aspect.

c. Social Factor

There is a statistically significant difference between the two groups in social factors ($p = 0.012$). This means there are differences in perceptions or social conditions between youth farmers who participate in the program and those who do not. This finding is supported by the Mean Rank value of 23.07 for the participating group, showing better conditions among participants than non-participants (Mean Rank 10.93).

- Significance Differences
 - Youth Perspectives on Agriculture: Youth farmers participating in the program have more positive views of agriculture as a source of reliable income than non-participant youth farmers ($p = 0.004$, with mean rank 23.38). This indicates that the program has succeeded in improving positive perceptions of the economic potential of agriculture. The program improves the perception of agriculture among youth, making it seen as a reliable and respectable livelihood. This shift could possibly be due to the program's efforts in entrepreneurship training, exposure to successful farming models, and promotional campaigns about agricultural opportunities.
 - Access to Information and Training: Youth farmers participating in the program had better access to relevant information and training opportunities to increase their agricultural skills and knowledge ($p = 0.001$ with mean rank 23.74). This indicates that the program has succeeded in providing relevant information and training for youth farmers, through agricultural extension, skill development and adopting modern practices.

- Non-Significant Differences:
 - Family Expectations (p = 0.486): With similar family expectations between groups, it appears that family influence on youth participation in agriculture did not vary significantly between them. This indicates, while family support is important, it may not be a primary differentiator between participants and non-participants.
 - Community Support System (p = 0.623): Non-significant differences indicate that community support systems for both groups were similar. This finding suggests that community-level interventions might be needed to bolster the support systems for youth farmers more efficiently.

The results of the Mann-Whitney U Test indicate that Desa Tani program has had an positively beneficial effect on economic factors for youth farmers, such as access to land, capital, technology and income. Additionally, the program also has a positive effect on the social factors of youth farmers, precisely in the perception of youth farmers regarding agriculture as a promising source of income and their access to agricultural information and training. It is important to note that these results are based on the available data and the analysis methods used.

4.1.2. Interview Analysis

A total of 18 interviews was conducted with youth farmers who participate the Desa Tani program (8 people) & those who do not participate (5 people), the program administrator (1 person), *Agronative* cooperation staff (3 people) and the local community figure (1 person). Several key themes emerged from the interview analysis.

Analysis of interviews focuses on two groups of youth farmers participating in Dompét Dhuafa's Zakat Empowerment Program, Desa Tani Program: those participating and those who do not. A comparative approach highlights differences in experiences, motivations, challenges and perspectives across groups allowing a comprehensive examination of how this program has contributed to youth involvement in agricultural sectors.

4.1.2.1. Youth Farmers who Participate in the Program

Analyzing 8 interviews reveals several thematic axes that highlight the program's effectiveness, such as economic stability, resource access, community support, challenges faced, personal satisfaction and future ambitions. Below are excerpts from interviewees which illustrate these aspects.

Table 4.1.2. 1 Thematic Analysis of Youth Farmers who Participate the Program

Themes	Keywords	Relevant Text Excerpts
Economic Stability and Improvement	Stable Income, Regular Earnings, Financial Security	<ul style="list-style-type: none"> - Hidayat: "The results are sufficient for daily needs and sometimes can save money. Because there are two sources of income, from packing and farming." - Ina: "Now, per month, I earn a stable net income of 2 million." - Aseng: "Income before joining Desa Tani was uncertain. Now it is more stable at 25 million net per month." - Karnati: "I feel quite helped by Desa Tani because previously my work was uncertain. Now it's more stable." - Dentris: "The income is quite good, more than double compared to before joining the program." - Bako: "Farming might take a long time. The minimum harvest time is every three months. But the capital can actually be minimal. So, economically, it is quite good." - Mamat: "Yes, there must be an increase (in income), but not too significant."
Access to Resources and Support	Land Access, Greenhouse, Financial Support, Training	<ul style="list-style-type: none"> - Aseng: "It's all provided. From planting preparation, seeds, fertilizer costs, to medicines, it's all provided by the cooperative." - Dentris: "For me, I'm in the packing house. Farming is just an additional job, but the additional income is quite good. Especially in the greenhouse, the vegetables are predetermined, so I feel safe." - Mamat: "Here, loans are easy to get. Selling is also easy, we just bring the harvest here, and they will market it."; "Maybe the greenhouse is the most helpful. In the greenhouse, the plants are not heavily infested and can use technology and smart farming." - Hidayat: "I believe I can manage the greenhouse myself. Because while working in the cooperative packing house, I often see how people work in the greenhouse." - Bako: "This program is very helpful. Starting from providing land, capital, and also if there are any issues, they help resolve them."

Themes	Keywords	Relevant Text Excerpts
Sense of Community	Community Support, Mutual Help, Family Feeling	<p>- Mamat: "Alhamdulillah. It's peaceful here with other farmers. No problems, we actually help and share with each other."; "Besides pride, it seems because their parents themselves do not encourage their children to farm."</p> <p>- Aseng: "In Desa Tani, everyone has become like family. So, we help each other if there are difficulties, like pests. I like it here because of the togetherness."</p> <p>- Hidayat: "Definitely get guidance. We get directions from people here on how to farm." "I just ask people here if needed. Maybe just dive in directly. Alhamdulillah, the people here are supportive."</p> <p>- Bako: "Sometimes if there are issues or pests that we don't know how to handle, we can ask more experienced people. They give us the right medicine or fungicide and also still ask."</p>
Challenges and Barriers	Equipment, Pests, Weather Conditions, Market Access, Pride	<p>- Hidayat: "In my opinion, pests are the most troublesome in farming. Also, the weather is unpredictable."; "But usually, if you use the smart farming application, the results are different (less satisfying) compared to manual watering yourself."; "Like the drum, 1 drum is sometimes pulled here and there, used for other things too, you have to be quick if you want to use the drum."; "Then maybe the hose. Also, the bucket. For the hose, 1 hose for 3 greenhouses can't be used for watering together, you have to take turns. Sometimes it hinders time like that, we're already racing against time. If we can do it together, it saves time, right?"</p> <p>- Iman: "For me, the issue is probably time management. Because I work in packing and also farm, so I have to manage time for both jobs."; "Mostly from fertilizer. Sometimes farmers need fertilizer A, for example, they also provide it here, but sometimes it's not enough, like now it's not enough."</p> <p>- Aseng: "There are definitely problems, like weather conditions. For leafy vegetables, they often rot during the rainy season."</p> <p>- Ina: "The challenge, as I see it, is that the market access is not yet broad."</p> <p>- Dentris: "The challenge is the land. Without land, you're stuck." "It also depends on nature. Because sometimes the harvest is good, sometimes it's bad."; "From the perspective of ordinary people, what makes farmers look cool is their money. Here, it's already visible, those with big houses, those who have cars, they must be complete farmers here. There's nothing else, farmers, ranchers. Their wealth is visible. Because people here have high pride, more than city people. Even walking to a nearby shop, they just don't want to."</p>

Themes	Keywords	Relevant Text Excerpts
		<p>- Bako: "The first issue is probably pride. The challenge is whether they want to be a farmer or not."; "Sometimes the land is ready, but the seeds are not yet available."</p> <p>- Mamat: "Because greenhouses are stable. If it's outside (open field/conventional), it's already a race against nature, a bit tough."; "Most of them (young people) have skills, but they don't want to get dirty, that's their pride."</p>
Personal Satisfaction and Motivation	Job Satisfaction, Pride, Motivation	<p>- Mamat: "Alhamdulillah, satisfied. From 2018 until now."</p> <p>- Karnati: "Alhamdulillah, it's enough. I am satisfied too. If rating, it would be number 5."</p> <p>- Ina: "Satisfied. Farmers are very helped. The locals can work here and earn a decent income."</p> <p>- Dentris: "This should be quite interesting for young people. The life is comfortable, the people are good, the facilities are nice, and the financial aspect is also good. The commercial profit is good. The sense of togetherness and care here is not found in other workplaces. It's rare. The sense of family is very strong. We get facilities for packing, transportation, and tools that make work easier and faster."</p> <p>- Hidayat: "For me, there's a lot to learn from farming. Before the harvest, there's a process. I enjoy every step of the farming process. Also, I learn new things and get new income."</p>
Future Aspirations	Expansion Plans, Sustainable Practices, Long-Term Vision	<p>- Hidayat: "I want to continue exploring farming because the prospects are good. People need agricultural products. Even from a small plot, it's quite good, especially if the land is larger."</p> <p>- Aseng: "Currently, we have one greenhouse. The hope is to get more land."</p> <p>- Ina: "In my view, agriculture is good because what we plant is what people need, not just what they want."</p> <p>- Dentris: "In hotels, the salary is fixed. In agriculture, it can be more. The prospects in agriculture are bigger."; "Maybe if I have the opportunity, I would prefer agriculture because I have the knowledge, and it's better."</p> <p>- Iman: "I say that agriculture is beneficial. People think farming is tiring, but they don't know the benefits. The potential income from agriculture is much higher than from hotels."</p> <p>- Bako: "To attract young people's interest, it should be more about marketing. If the marketing is bigger, Desa Tani can attract more farmers."</p>

Source: Author's data processing

The table above presents a comprehensive thematic analysis on youth farmers' participation, highlighting key themes, associated keywords, and relevant text excerpts from 8 interviews.

4.1.2.2. Youth Farmers who Do Not Participate in the Program

Based on 5 interviews conducted with individuals who did not join Desa Tani program, interviewees revealed various factors affecting youth involvement with farming ranging from economic considerations to cultural and familial ties. Respondents highlighted both challenges and opportunities present within agriculture sector while there were clear distinctions in perspectives between *mustahik* and *muzzakki* groups.

Table 4.1.2. 2 Thematic Analysis of Youth Farmers who Do Not Participate the Program

Themes	Keywords	Relevant Text Excerpts
Economic Challenges	Capital, Cost, Price, Income, Earning	<ul style="list-style-type: none"> - "The most important are the land and capital. If you have those two, you can manage. But primarily, it's the capital. Without capital, you can't start or rent land." (Entang) - "The income is uncertain. Monthly earnings usually range from Rp 1,000,000 to Rp 1,500,000 since 2017. Moreover, now the equipment is expensive." (Oman) - "The biggest challenge is fertilizers and plant medicines because they are expensive. That's why I switched to pumpkin cultivation because it's cheaper (fertilizers and medicines). I used to be a vegetable farmer, but fertilizers and medicines for vegetables are difficult. Fertilizers and medicines for vegetables are expensive. It's cheaper and easier with pumpkins." (Sholihin) - "Nowadays, being a farmer and working in the city is the same. The salaries are about the same." (Dadang) - "I think young people here should benefit from farming. I plant only five types of vegetables, and I can sell large amounts two to three times a month." (Gilang)
Market Access	Market, Middleman, Price, Retail	<ul style="list-style-type: none"> - "Marketing is very easy; we don't even need to deliver often as they pick it up. There's a vegetable warehouse, and I can sell and harvest every two weeks." (Gilang) - "Especially since there are retail markets. We have a planting pattern, and there are collectors. We sell to collectors first, then to the market, and then to others. Now, retail markets demand daily." (Dadang) - "I sell my harvest to middlemen because the market is far. If the harvest is small, it doesn't cover

Themes	Keywords	Relevant Text Excerpts
		<p>the travel cost. Sometimes I get a fair price, sometimes I don't." (Oman)</p> <p>- "The selling price is uncertain. When prices are high, we sell high, but when prices are low, we sell low. Once, when prices were high, we sold at a high price, but vegetable prices are not stable." (Entang)</p> <p>- "The income is just enough. But I also have other earnings. I have coffee in the forest. For coffee, I harvest once a year. Sometimes I work as a labourer on other people's land. It's quite good; I can make 3 million a month from all the work I do. My monthly expenses are around 3 million too." (Sholihin)</p>
Challenges and Barriers	Weather Conditions, Market Access, Cost (fertilizer & medicine), Certification	<p>- "The hardest part of farming is the weather. The weather is unpredictable. Sometimes it's good, sometimes not. Strong winds make seedling difficult." (Gilang)</p> <p>- "Since we supply to retail markets like big supermarkets, they often demand organic produce. Organic certification is expensive. There are many requirements, and I can't meet them yet. If we had the certification, the prices would be better." (Dadang)</p> <p>- "Capital is the biggest challenge." (Oman)</p> <p>- "Farming has its challenges and barriers. For example, initial capital. And if the mulch needs replacing, that also requires capital. Now, medicines are also expensive. Buying vegetable equipment is also quite costly now." (Entang)</p> <p>- "The biggest challenge is fertilizers and plant medicines because they are expensive. Many young people are already supported by their parents, so they don't need farming. Their parents provide for them, so they don't farm." (Sholihin)</p>
Motivational Aspects	Motivation, Encouragement, Opportunity, Challenge	<p>- "The main job is farming. The family also farms, and I get motivation from the family to delve deeper into farming." (Entang)</p> <p>- "Young people willing to farm should not face any barriers. There is land, and the market is also accessible. It depends on their willingness. If they have land from their parents, the results are good. The land here is good." (Dadang)</p> <p>- "As long as people need food, there will always be a need for farm produce. The prospects are long-term. Farming offers opportunities, and you don't have to move far from your family. You can stay close and not need to migrate." (Gilang)</p> <p>- "If there's an opportunity elsewhere, I'm willing to work outside. If there's a chance outside, I would</p>

Themes	Keywords	Relevant Text Excerpts
		take it. Farming is self-standing, but you also bear the risks alone." (Oman) - "I want to develop agriculture. If I have more land, I would like to grow more vegetables." (Sholihin)
Need for Resources and Support	Land, Technology, Certification, Capital	- "I don't use any advanced technology, just manual methods. Sometimes I borrow capital and repay during harvest or seasonally. Getting loans can be easy or difficult. It's easy to get loans for seeds and fertilizers, but for other needs, it's hard." (Oman) - "I have a small plot at home. Luckily, I can rent from PTPN. So, I get land access from PTPN at a lower rent through the group than renting individually." (Sholihin) - "If obtaining certifications for organic produce were easier, we could get better results." (Dadang) - "I've never borrowed; it's troublesome. I use my own money. Borrowing is difficult here, often rejected." (Entang)

Source: Author's data processing

This table presents an in-depth thematic analysis on youth farmers' participation, outlining key themes, associated keywords and excerpts from five interviews that provide further insights.

4.1.2.3. Comparative Analysis between Groups of Youth Farmers

Interview analysis for this section involved three groups. There were 8 *mustahik* youth farmers taking part in Desa Tani Program; 3 individuals eligible for Zakat who are not taking part in the program but still eligible (*mustahik*); and 2 individuals who did not meet criteria to qualify (*muzakki*). Comparing experiences, motivations, challenges and perspectives between these three groups provides a complete picture of its effect on youth involvement with agriculture sector activities.

a. Motivation to Pursue Agriculture as a Livelihood

- Participants in the Program: Youth farmers involved with this program frequently cited structured support, access to resources, and community-driven motivation as primary reasons why they pursued agriculture as a livelihood. Training resources provided through this program were instrumental in encouraging participation. Hidayat and Iman were particularly pleased by Hidayat and Iman expressed satisfaction with greenhouse provided through this program as it motivated them to keep farming despite challenges; although other participants noted that smart farming applications sometimes did not

produce satisfactory results when compared with manual methods used manual methods.

- Non-Participants (*Mustahik*): They cited an absence of awareness and access to structured support as reasons why they chose farming rather than seeking structured encouragement or resources from formal institutions. For instance, Oman stated his main reason was due to limited employment options elsewhere.
- Non-Participants (*Muzakki*): This group was comprised largely of people with other sources of income who did not rely solely on agriculture as their means to support themselves, such as personal interest or additional sources of revenue. Dadang stated he knew about the program but felt no urgency to join as his agricultural activities had already established themselves within his household.

b. Access to Resources

- Participants in the Program: Beneficiaries reported easier access to essential resources like seeds, fertilizers, technology and financial support from the program as a major benefit of participating. Mamat noted how having access to fertilizers and seeds through the program played an essential part in his decision to pursue agriculture; financial assistance along with accessing seeds via the program through *Agronative* cooperation had an equally profound effect. Nonetheless, some participants mentioned occasional shortages or competition for shared equipment like drums or hoses as downsides of participating.
- Non-Participants (*Mustahik*): This group had difficulty accessing necessary resources due to high costs and limited availability of inputs like seeds and fertilizers; often resorting to personal savings or informal loans for these resources. Sholihin noted the high prices for agricultural inputs as well as difficulties securing loans as main challenges they encountered.
- Non-Participants (*Muzakki*): Farmers who were financially stable typically enjoyed greater access to resources; however, high input costs still presented them with challenges. Gilang noted this was still a cause of worry among these nonparticipant farmers despite having access to sufficient financial means for resources.

c. Economic Effect

- **Participants in the Program:** Many participants saw significant economic benefits from participating in this program, due to interventions like training and accessing better markets provided through it. As a result, their income became more predictable since joining and many interviewees noted their stable and more predictable earnings since joining. Nonetheless, not all participants experienced substantial income increases; for some such as Mamat alone farming income might no longer suffice as an income source.
- **Non-Participants (*Mustahik*):** They reported fluctuating incomes with reduced economic stability due to traditional farming techniques or lack of access to better markets; Oman described his income as unstable while noting the necessity to take additional jobs to supplement earnings from farming.
- **Non-Participants (*Muzakki*):** This group generally enjoyed more stable economic situations due to diversified sources of income, but still experienced challenges associated with market price fluctuations; Dadang noted this while noting his income was stable, but this still presented risks to him and others in this category.

d. Community and Social Effect

- **Participants in the Program:** This program fostered an environment of solidarity among its participants that helped maintain participation while welcoming newcomers into agriculture. Hidayat and Iman both spoke highly about how much support and camaraderie was present amongst fellow program participants.
- **Non-Participants (*Mustahik*):** They were missing structured community support; while informal community ties existed, these did not offer as much encouragement and help as those participating in the program did. Sholihin noted this lack of community engagement as one of her struggles working independently.
- **Non-Participants (*Muzakki*):** Although having strong community ties, they did not benefit from the structured support provided by the program. Gilang noted that while community assistance existed for this group as well, it wasn't organized or resourceful compared with what participants experienced through participation.

e. Challenges Faced

- **Participants in the Program:** In spite of all support available to them, program participants still experienced numerous obstacles such as weather variability, market fluctuation, pest and disease management and time restrictions due to additional jobs. Although training and resources provided through the program helped mitigate some issues associated with smart farming applications not always being effective and competing over resources available for sharing among them, participants sometimes perceived there to be competition over shared resources that was hindering growth in some instances.
- **Non-Participants (*Mustahik*):** This group was exposed to more severe challenges, such as high input costs, lack of access to modern farming techniques and greater vulnerability due to market and weather-related risks. Entang noted how difficult it was to access affordable resources due to these high input costs.
- **Non-Participants (*Muzakki*):** While non-participants also faced input costs and market risks similar to participants did, financial security provided them some measure of protection from them. Dadang noted the difficulty associated with maintaining organic certification due to expensive costs while acknowledging his diverse income sources helped reduce risks related to maintaining it.

f. Youth's Willingness to Pursue Agriculture as a Livelihood

- **Participants in the Program:** This program had a positive effect on participants' perceptions of agriculture as an attractive livelihood option, leading them to take pride and optimism about continuing or even expanding their farming operations. Hidayat and Iman were especially committed to their farming operation regardless of additional jobs they might take up in addition to continuing farming operations; other acknowledged that life with multiple responsibilities comes with challenges as part of daily living.
- **Non-Participants (*Mustahik*):** Perceptions among these non-participants varied significantly. Some saw agriculture as their last resort due to limited opportunities elsewhere and lacking structured support and training support contributed negatively towards more negative opinions of farming as a livelihood option. Entang saw farming as necessary but less desirable option due to his limited options available to him.

- Non-Participants (*Muzakki*): This group tended to view agriculture more favourably as an additional income source, rather than their sole form of livelihood. For instance, Gilang noted it helped his business interests and was not his main priority but noted its benefits as part of his life story.

g. Future Aspirations

- Participants in the Program: Many expressed hopes to expand their agricultural activities, adopt more advanced techniques, mentor new farmers and mentor them too. The program instilled both ambition and possibility. For instance, Mamat expressed her intention of learning more and employing smart farming practices into his future farming operations; yet some participants recognized limitations due to resources or need for more land as keyways towards reaching their goals.
- Non-Participants (*Mustahik*): They had more modest aspirations that focused on immediate survival rather than long-term development, limited resources limited their capacity for planning the future. Oman specifically mentioned his primary objective being securing stable income to support his family.
- Non-Participants (*Muzakki*): This group had more ambitious plans, often looking to expand or diversify into related businesses such as agriculture or organic farming operations despite any difficulties that arose from expanding them. Dadang expressed interest in expanding organic farming operations regardless of any challenges he might encounter in doing so.

Desa Tani Program participants find their agricultural experience significantly enhanced through economic stability, resources, and community support that is less available to non-participants (*mustahik*). This differential access results in improved perceptions about agriculture among participants as they develop sustainable farming livelihood pathways compared with non-participant experiences which tend to be unsupportive or uncertain.

While the program is generally viewed positively, some participants also noted challenges related to resource limitations and the effectiveness of certain technologies. Meanwhile, non-participants (*muzakki*) generally have more resources and access to markets independently, which mitigates some challenges faced by *mustahik*.

4.1.2.4. Perspectives of Program Stakeholders

1) The Program Administrator Perspective

The interview with Mang Ade, as the Program Administrator, provides a comprehensive perspective on the Desa Tani program and its effect on youth farmers' participation. The following literal statements from Mang Ade support various aspects, highlighting personal transformation, economic empowerment, education, innovation, collaboration, and environmental sustainability.

Table 4.1.2.4. 1 Thematic Analysis of The Program Administrator

Themes	Keywords	Relevant Text Excerpts
Personal Transformation and Experience	Addiction, Rehabilitation, Life transformation, Personal experiences	"Desa Tani's concept actually originated from Mang Ade's bitter life experiences. Mang Ade was addicted for a long time, and the community in Cibodas knew him as a troublemaker. Mang Ade migrated for 14 years, away from his hometown, experiencing the ups and downs of street life, guardianship, and rehabilitation. Alhamdulillah, during that time, Mang Ade found a turning point in his life."
Challenges and Obstacles	Financial difficulties, Bureaucratic challenges, Regulatory hurdles, Land access issues	"After joining RM, Mang Ade learned a lot about creating proposals to empower addicts. In 2013, he spontaneously decided to resign, driven by an uncontrollable urge that felt like a craving. He finally approached the director, submitted his resignation letter, and despite the director's reluctance, was allowed to survive outside as a farmer."; "Policies. Clashes with government bureaucracy. As discussed with Mr. Ahmad, Mr. Ahmad required that if Mang Ade wanted his master plan to be realized, it would take at least 10 years to cover the investment costs. If it was only 5 years, it would be difficult for him to account for it."
Community and Social Stigma	Negative perception of farmers, Stigma, Community support, Uplifting status	"Mang Ade's analysis shows that there is still a stigma against farmers, making regeneration difficult. It's not just about choosing to be a farmer; even admitting to being a farmer's child is embarrassing. Mang Ade experienced this himself during high school. Now, he sees that almost 80% of the new generation expresses the same sentiment."
Economic Empowerment and Sustainability	Economic empowerment, Financial independence, Sustainable practices, Market access	"In 2015, with Serenity Farm, Mang Ade started to become more independent, helping farmers by buying fertilizers, <i>mulsa</i> , and seeds. However, during harvest, they didn't commit to returning the capital that Mang Ade had provided, even though he didn't charge interest. Despite this, he didn't give up and eventually turned to investors."; "In

Themes	Keywords	Relevant Text Excerpts
		Desa Tani, what we plant is already awaited by buyers with set prices. But sometimes, they can't fully commit. When prices are high, they complain. When prices are low, we subsidize without discussing it."
Education and Capacity Building	Educating farmers, School farms, Practical education, Youth participation	"In November, Mang Ade established a farming school, which can be seen on YouTube channel under Desa Tani TV. It's fully designed by Mang Ade, confident in agriculture based on existing facts, achievements, and making the participants feel active and have fun in farming."
Innovation and Development	Technologies, Greenhouse farming, Innovative methods, Continuous improvement	"That year, it expanded to a total of 2.7 hectares with 27 beneficiaries, some of whom participated only in the greenhouse program. The greenhouse was introduced in the second year, 2019. Learning by doing, Mang Ade realized that the risk of failure was quite high if we did not upgrade our farming practices according to the natural conditions."
Collaboration and Support	Dompot Dhuafa, Stakeholder collaboration, Partnerships	"Based on Mang Ade's bitter experiences, he didn't want other small farmers to face the same. In 2018, Mang Ade was seeking funds to realize his concept because he had exhausted his money and turned to investors. Allah brought Dompot Dhuafa to us."
Personal Philosophy and Vision	Personal philosophy, Ethical practices, Vision for Desa Tani, Communal benefit	"Between the profits we make and the operational expenses, there is a significant gap. Mang Ade's challenge in 2024 is to balance this. The solution is to expand the market. Although the market is already there, with many offers, the challenge lies in the funding because much of it is consignment."
Economic and Market Dynamics	Market price challenges, External market forces, Price stability	"In Desa Tani, what we plant is already awaited by buyers with set prices. But sometimes, they can't fully commit. When prices are high, they complain. When prices are low, we subsidize without discussing it."
Environmental Concerns and Sustainability	Environmental stewardship, Sustainable practices, Land degradation, Ecological health	"In 2021, based on the initiative of the existing team and the beneficiary farmers, we wanted to be stronger in dealing with buyers, meaning business-to-business, which requires legal status. At that moment, we decided to legalize the team by forming a cooperative, certified by a notary. Thus, the <i>Agronative</i> Pratama Indonesia Producers Cooperative was established (The true name of <i>Agronative</i> cooperative of Desa Tani)."

Source: Author's data processing

Here is the analysis of insights from the program administrator on program design, implementation, and effectiveness, as follows:

- Insights from the Program Administrator on Program Design

Desa Tani program's design draws deeply on Mang Ade's personal experiences and transformation, particularly his journey from addiction to rehabilitation and subsequent efforts to assist others, which highlighted both personal growth and social contribution as key parts of an enriching experience. His background drives the program's mission to provide similar transformative opportunities to youth farmers, emphasizing rehabilitation, empowerment, and the potential for personal change through agricultural engagement.

Desa Tani program's primary mission is to change negative perceptions about farming and encourage youth participation in agriculture. Mang Ade identified significant stigma attached to farming that often-discouraged younger generations from considering it as viable livelihood option. By working to elevate and change society views about farmers, Desa Tani hopes to make farming an appealing profession that ensures its sustainability within communities. This goal serves an integral role in creating future farmers as well as maintaining agricultural practices within local communities.

- Insights from the Program Administrator on Program Implementation

Training and educational initiatives are at the core of Desa Tani, with Mang Ade emphasizing their importance through projects like school farms (with interns' university students) and online educational content like YouTube channel to ensure youth farmers gain practical education as they acquire necessary knowledge for modern agriculture - supporting both personal and professional growth simultaneously. These efforts help youth farmers establish themselves within modern agriculture with both practical skills and theoretical knowledge that foster personal and professional success in modern farming.

Community engagement is another essential element of the program's implementation strategy, according to Mang Ade. He stressed the significance of hosting campaigns and events to foster support and participation by members of the local communities. Not only do these campaigns raise awareness but they create an encouraging atmosphere where youth farmers feel valued and appreciated; active community involvement fosters ownership over

agricultural initiatives while simultaneously building collective responsibility towards its success.

Financial support and market access are core aspects of Desa Tani program, according to Mang Ade. He discussed how Desa Tani assists farmers by providing essential inputs such as seeds and fertilizers as well as connecting them to buyers to guarantee stable market access. This allows farmers to focus more fully on production without constantly worrying about finances limiting them, creating sustainable livelihoods through economic stability. Through encouraging financial independence through this support mechanism, Desa Tani program helps facilitate sustainable livelihoods.

- Insights from the Program Administrator on Program Effectiveness

The Desa Tani program has proven extremely successful at economically empowering farmers by offering stable market access and financial support, according to Mang Ade of Desa Tani's Program Administrators Office. He explained how predetermined prices ensure buyers anticipate what farmers produce which helps reduce volatility of prices for goods that were already anticipated by buyers reducing vulnerability during market fluctuations and contributing to financial independence and reduced vulnerability during fluctuations of markets. Its emphasis on financial support as well as market integration has significantly contributed towards making farming viable as profession in today's society.

Desa Tani program has also an impressive social effect by countering the stigma attached to farming. Through community campaigns and sharing success stories, Desa Tani program has begun changing societal perceptions regarding farming, making farming an appealing livelihood option among younger generation. Mang Ade's efforts at combatting stigma has encouraged even more youth to consider farming livelihoods, ultimately contributing to regeneration of farming community as well as preservation of agricultural practices.

Desa Tani program continues to face numerous hurdles despite its successes, such as financial hardships, bureaucratic obstacles and regulatory requirements. Mang Ade discussed candidly their struggles of securing consistent financial support as well as government regulations; such difficulties require continuous improvement strategies with adaptive

approaches being necessary to address them successfully and guarantee its long-term viability and long-term effectiveness of Desa Tani programs.

2) The *Agronative* Cooperation Representative's Perspective

The *Agronative* Cooperation representatives (3 people) from the Desa Tani Program by Dompét Dhuafa, describing technical assistance's effect on youth farmers skills. Each representative offers unique insight on how this intervention has improved youth farmers capabilities and participation within their program, showing tangible benefits of structured support and training programs. Here is a table that performs a thematic analysis integrating identified topics, associated keywords, and relevant text excerpts from the interviews conducted with the *Agronative* Cooperation representatives.

Table 4.1.2.4. 2 Thematic Analysis of the *Agronative* Cooperation Representatives

Themes	Keywords	Relevant Text Excerpts
Technical Assistance	Training, Skills, Techniques	<ul style="list-style-type: none"> • Jajang: "Fortunately, in Desa Tani, we have a module. This module serves as a guide for all farmers, where everything is included, from planting to maintenance. We provide this module to farmers, and those who follow the module will change. So, after farmers read and practice it, they become disciplined." • Dadan: "As a trainer, I mostly handle post-harvest processing and product sales."; "Farmers are quite skilled in farming, but unfortunately, their final touches are not good." • Fikri: "The key technique is to first record everything, like income and expenses. Eventually, the profit or loss will be clear. If we try to teach them, they might get confused, so just record everything first."
	Financial Skills, Management	<ul style="list-style-type: none"> • Jajang: "Land rental is facilitated by the <i>Agronative</i> cooperative with productive zakat funds, so they have no rental burden. Essentially, the cooperative facilitates land rental."; "We provide fertilizers for maintenance related to pesticides or fertilizers, which they get from the cooperative. When they harvest, they return the funds. This is the agropreneur scheme, which is advantageous in terms of the timeframe." • Dadan: "Young people prefer instant work like packing to get a salary. But here, we facilitate their growth. We provide greenhouses for them to manage. So, besides working in the packing house, they earn more from their harvest in the greenhouse. Alhamdulillah, the results have been good so far." • Fikri: "But I think we are on the right track. Starting from regeneration and the planting program, because if we don't have a pattern, prices fluctuate quickly. Our

Themes	Keywords	Relevant Text Excerpts
		<p>pattern allows us to know in advance what commodities we need to sell in three or four months."; "Regarding financial reports, we are developing a system to make it easier. Annual reports for 2023 will be organized. The 2022 report exists but may not be well-packaged. For 2023, it will be organized. By 2024, it should be systemized, so daily and weekly reports are in real time."; "Young people who are not yet married are fine with this income. But those who are married and have children, especially with school expenses, get anxious. During Eid and semester breaks in June or December, they need money. Instead of borrowing from outside, we deduct after the harvest. But we also look at our finances, so we can't help 100%. But it's better than them getting trapped with loan sharks."</p>
	Smart Farming, Technology	<ul style="list-style-type: none"> • Jajang: "Here, they farm using smart farming. They farm using IoT, so wherever they are, as long as the network is good, they can water and fertilize."; "We train them from the beginning on how to use technology in this greenhouse. We have IoT, and we train them on how to apply it."; "We work with Habibi Garden, which designs the system." • Dadan: "Smart farming (in the greenhouse) is interesting for them. Maybe because of the automation aspect. The greenhouse can be left alone. If they want to water, they just do it via their phone." • Fikri: "Feel free to farm with us using the smart farming system in the greenhouse. Even if you are out of town, you can monitor it on your phone. I think it's quite interesting for millennials. But since the assistance from Bank Indonesia for the software is over, the software needs to be bought annually. For mechanical parts, we own them. Maybe we don't fully use the system here because older people find it hard to learn. So, we are discussing whether millennials continue using the system while older people don't. Because older people have to pay for it but might not use it effectively."
Effect on Youth Participation	Decision Making, Participation	<ul style="list-style-type: none"> • Jajang: "Young people have fresh ideas. We need to introduce agriculture to them. They might bring new innovations."; "We want to engage young people. Our goal is to create millennial farmers. Why do we have a mini soccer field in the site plan? Why do we have a music studio and a café? Because we think about the young generation."; "We engage youth farmers, find the market first, and then plant." • Dadan: "Over time, because every harvest is felt, young people become more aware of what products are suitable for supermarkets and they care more."

Themes	Keywords	Relevant Text Excerpts
		<ul style="list-style-type: none"> • Fikri: "Simply put, I haven't thought about future prices. Initially, I thought, "This is a primary need, people need it every day.""; "It's easier to explain to youth farmers. They are easy to teach, and it helps with regeneration. With older farmers, there is no regeneration. That's why the composition now includes more young people."
	Innovation, Practices	<ul style="list-style-type: none"> • Jajang: "New fresh innovations can emerge from them."; "They rarely calculate their production costs. They don't know how to calculate their production costs. I teach them how to calculate it, like how much fertilizer and animal manure are needed for 1000m², and how much mulch is required." • Dadan: "Currently, the trend is smart farming. But it depends on them. Some want to use it, some don't."; "During COVID-19, we were still earning. So, food availability and agriculture are still needed. Especially when combined with smart farming innovation." • Fikri: "In <i>Agronative</i> cooperative business, we must have a market. The market automatically considers that people need to eat. If we expand, the market is already there. It's just about how we innovate to grow it."
	Independence, Financial benefit, Earnings	<ul style="list-style-type: none"> • Jajang: "Here, we target financial independence for all farmers, especially the young ones." • Dadan: "When it comes to money, young people want to earn more. Initially, they didn't want to, but when they started farming and saw the earnings, they didn't want their land to be empty. They want to keep it productive." • Fikri: "Farm laborers don't know about profit and loss. They work from dawn until noon and earn about Rp 50,000 per day, regardless of the farmer's profit or loss. However, if they own the land, during a good harvest with high prices, they can earn much more."
Empowerment through Education	Leadership, Community Roles	<ul style="list-style-type: none"> • Jajang: "We need more young leaders in agriculture. To support this, we have completed the farming school education, with all participants being young people. Out of 50 educated individuals, we assessed 10 ready to become millennial farmers after a three-day assessment." • Dadan: "Young people I teach are obedient and follow along. Maybe because they have direct farming experience, they adapt quickly." • Fikri: "Older people are hard to teach because they are set in their ways. If Desa Tani could provide health insurance, it would be a strong factor for young people to join."
Community and Network Building	Community, Integration	<ul style="list-style-type: none"> • Jajang: "In the <i>Agronative</i> cooperative, Desa Tani is the program. The nursery, packing house, and production facilities are the business."

Themes	Keywords	Relevant Text Excerpts
		<ul style="list-style-type: none"> • Dadan: "I handle marketing, ensuring partner commitments. We don't need large quantities but sustainable daily supplies." • Fikri: "Our cooperative basis ensures that we don't need to buy from other traders. We always have products."
	Cooperative, Management	<ul style="list-style-type: none"> • Jajang: "The development needs in Desa Tani, like mulch and fertilizer for open fields, are in Saprodi. Seeds are in the nursery. We provide capital and knowledge, including Saprodi." • Dadan: "Meeting 80% target depends on weather. During bad weather, orders increase because good produce is scarce, raising prices. The greenhouse helps us manage these challenges." • Fikri: "Since 2018, we've been implementing a closed-loop concept from production to market. If all program designs work, like composting and other facilities, we wouldn't need additional capital. For example, the packing house is the entry point, but our units are still few. We buy manure, which means cash outflow. If we manage everything here, we can recycle it internally, providing it to farmers during harvest."
	Networking	<ul style="list-style-type: none"> • Jajang: "We organized the farming school in cooperation with YBM Brilian, who were the main donors. We recruited over 100 participants." • Dadan: "Grading is just two categories: modern markets and traditional markets. For exports, it falls under modern market grading, including hotels, restaurants, cafes, startups, and others." • Fikri: "In the commodity market, items are sold months in advance. For us, it's a step ahead. We should scale up our sales to avoid reverting to traditional markets. We now have packing and supermarket entry, even for exports."

Source: Author's data processing

This thematic analysis provides insightful perspectives on the role and effect of technical assistance, financial management, smart farming technologies, and the broader socio-economic effects of the Desa Tani Program on youth farmers. This analysis offers an in-depth look at how these elements contribute to strengthening farming practices and livelihoods among youth farmers involved in the program.

Representatives discussed the comprehensive training and skills development initiatives that are at the heart of the program. Farmers receive detailed modules that guide them from planting to maintenance, improving farming practices while fostering discipline. Training on post-harvest processes and sales strategies is also included to further hone

farmers' overall skills. While farmers already have basic farming skills, this training helps them refine their techniques further while improving the quality of the end product produced from their land.

The program has an important role in improving financial literacy and management skills among youth farmers, through the Agronative cooperative. Land rent can be obtained at a discount while critical inputs, such as fertilizer, are provided on credit with repayment after harvest, easing their financial burden while they focus on increasing production. Furthermore, Agronative will develop a support reporting system specifically aimed at helping youth farmers plan for their financial future. Attracting youth farmers is made much easier through smart farming technologies that leverage the Internet of Things (IoT). The greenhouses are now equipped with IoT applications that allow watering and fertilizing tasks to be done remotely, creating an engaging experience while positioning agriculture as an innovative industry that is relevant to modern technological trends.

Analysis shows the success of the program in engaging youth in agriculture, which is traditionally considered unattractive by young people, using modern technology and substantial support, the program has succeeded in changing this perception among the youth target population. By providing facilities such as mini football pitches, music studios, and cafes on the farm premises as part of this innovative solution to make farming an attractive lifestyle choice among the youth target group.

Representatives discussed the ongoing innovations in the program, from agricultural practices and financial schemes designed to support sustainable growth and independence to engaging youth and sustaining farming as a viable livelihood option. These innovations play a critical role in maintaining youth interest and engagement, keeping farming attractive as an attractive pathway to economic independence, and keeping youth farmers interested.

Representatives of the Agronative Cooperation highlighted how the Desa Tani Program empowers youth farmers through education, financial assistance, technology integration, and community development. These efforts have resulted in a transformative experience for youth farmers; giving birth to a new generation of farmers who have technological competence and become part of a support network in their area, creating a transformative experience that is not only personal but also ensures sustainability in the modernization of the agricultural sector.

3) The Local Community Figure's Views

An interview with Pak Dindin (Head of Cibodas Village) provides an overview of the changing attitudes of the community towards youth participation in agriculture due to the influence of the Dompot Dhuafa Desa Tani Program. Here is a table that performs a thematic analysis integrating identified topics, associated keywords, and relevant text excerpts from the interviews conducted with the *Agronative* Cooperation representatives.

Table 4.1.2.4. 3 Thematic Analysis of the Local Community Figure

Themes	Keywords	Relevant Text Excerpts
Youth Involvement in Agriculture	Youth in Farming, Farmer Regeneration, Productive Generation	"In the afternoon, you see young people riding motorcycles with containers in Cibodas. There are no older people here."; "In the past, vegetable distributors were older people. Now, all generations here are productive."
Innovation and Smart Farming	Smart farming, Planting System, Greenhouse, Agricultural Sensors	"The first to introduce smart farming here was Desa Tani."; "Now, with the millennial generation, there is a planting system, so there is no overproduction because residents' plant according to market needs."
Economic Empowerment	Purchasing Power, Local Economy, Financial Independence, Modern and Traditional Markets	"There is no unemployment here anymore. How could they want to join their parents in farming otherwise"; "The community's innovation is empowered by us, and the village is involved in preventing urbanization here."
Education and Training	Educational Facilities, Agricultural Training, P4S (Self-reliant Agricultural and Rural Training Center)	"We have Cibodas Elementary School, one State Junior High School, SMP Putra Nasional Cibodas vocational school, and an international-level school, Nurul Fikri Boarding School Lembang. We also have a P4S, which is a Self-reliant Agricultural and Rural Training Center."
Community Development and Self-Sufficiency	Community Empowerment, Urbanization, Packaging House, Home Industry, Public Health	"Here, we have Mang Ade, Mang Ian, Bintang Jaya, and Saham Organik, with about 8 packaging houses in Cibodas."; "In the past, people were lazy to farm because of the long harvest times, for example, cabbage takes 3 months. Now, crops like romaine and horensa take only one month, sometimes 25 days from planting to harvest."

Themes	Keywords	Relevant Text Excerpts
Sustainability & Environmental Effect	Sustainable Farming, Environmentally Friendly, Cow Manure Biogas	"Worm farming uses cow manure, and the worms' feed is cow manure."
Support from Dompot Dhuafa (DD) and Other Organizations	Zakat Funds, Financial Assistance, Cooperation with Organizations, <i>Mustahik</i>	"Dompot Dhuafa shows concern as well."; "Initially, it was developed by Japanese internship alumni and Mr. Isak. Here, we have a P4S initiated by Mr. Isak from Mandiri."

Source: Author's data processing

This table summarizes the thematic analysis of the interview with Pak Dindin, highlighting the key topics, associated keywords, and relevant text excerpts. Pak Dindin's statements reflect a significant transformation in the community's attitude towards agriculture, particularly in relation to youth participation. This change is attributed to several factors, including the introduction of innovative farming practices, economic benefits, and the program's overall effect on the community's development and self-sufficiency.

Farming was historically perceived to be an occupation for older individuals in Cibodas, with younger individuals typically disinclined towards it as an occupation. Due to the program's interventions, this perception has changed significantly. Pak Dindin noted that agricultural production used to be mostly carried out by the older population in their community. And nowadays, many young people are seen actively participating in agricultural activities by driving tractors or transporting crops. This development illustrates the growing appreciation for agriculture among young people who now view it as a productive and respectable form of livelihood. Through its ability to attract and retain youth farmers, the program has helped revitalize the local agricultural sector by engaging them as producers, making the sector stronger than ever and more environmentally sustainable than ever before.

The implementation of modern agricultural practices and technological innovations by the Desa Tani Program has proven to be transformative for the rural communities of Cibodas, according to Pak Dindin. Pak Dindin specifically noted how youth farmers have become pioneers in the implementation of smart farming technologies in Cibodas. In doing so, they have transformed traditional methods while modernizing them and making farming more attractive to youth farmers. Youth farmers are now playing a role as pioneers of agricultural innovation by leading systematic planting methods and

smart farming techniques that are in line with market demand, thereby reducing problems such as overproduction that leads to low prices for their products.

Economic empowerment is also a hallmark of the program's success, according to Pak Dindin's observations. He noted how youth unemployment has dropped dramatically with the availability of employment opportunities and financial independence through farming as an attractive occupation, and youth are no longer migrating to seek employment elsewhere, strengthening the local economy which in turn contributes to regional progress and prosperity. He stressed the importance of continuing education and training despite these positive developments, particularly through agricultural education institutions and training centers. Educational institutions play a vital role in upholding the skills of youth farmers while equipping them to face future challenges head-on, supporting comprehensive education (from primary school to agricultural training centers) has proven to be key in Cibodas.

Pak Dindin also emphasized sustainability and environmental impact as a key theme, noting how his community has adopted environmentally friendly farming practices such as using cow dung for worm farming that are in line with his program's eco-friendly philosophy. However, these sustainable practices must continue to receive support and education to remain sustainable. His community's dedication to ecological farming demonstrates not only the effect of the program, but also the need for ongoing efforts to ensure the long-term sustainability of eco-friendly farming.

4.1.3. Analytic Network Process (ANP)

Analytic Network Process (ANP) analysis reveals a deep understanding of the factors influencing youth participation in the Dompét Dhuafa Desa Tani Program. The four areas of the program interventions all have a significant role, with varying degrees of influence.

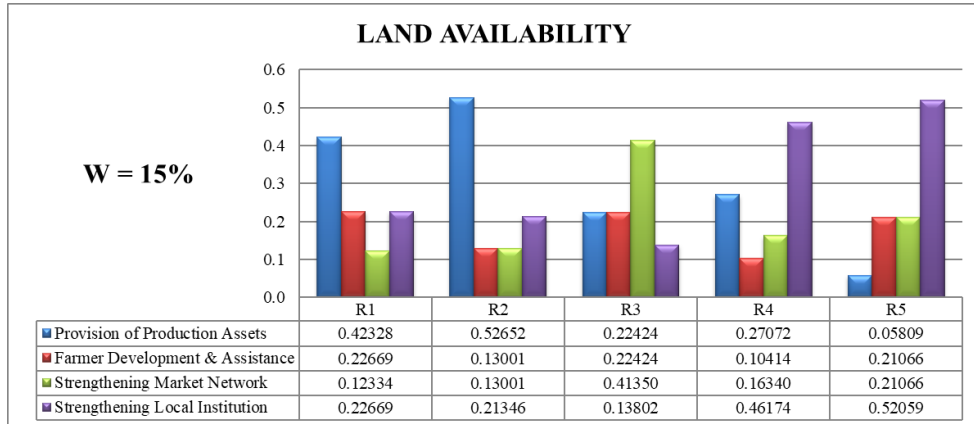
4.1.3.1. Analysis of Synthesis Results of the Program Intervention based on Economic Factor

a. Analysis of Synthesis Results of Land Availability Aspect

In this section, the results of Dompét Dhuafa interventions in the Desa Tani Program be described based on economic factors in the land availability aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompét Dhuafa intervention priorities in the Desa Tani

Program on the land availability aspect according to the opinion of all respondents as shown in the following figure:

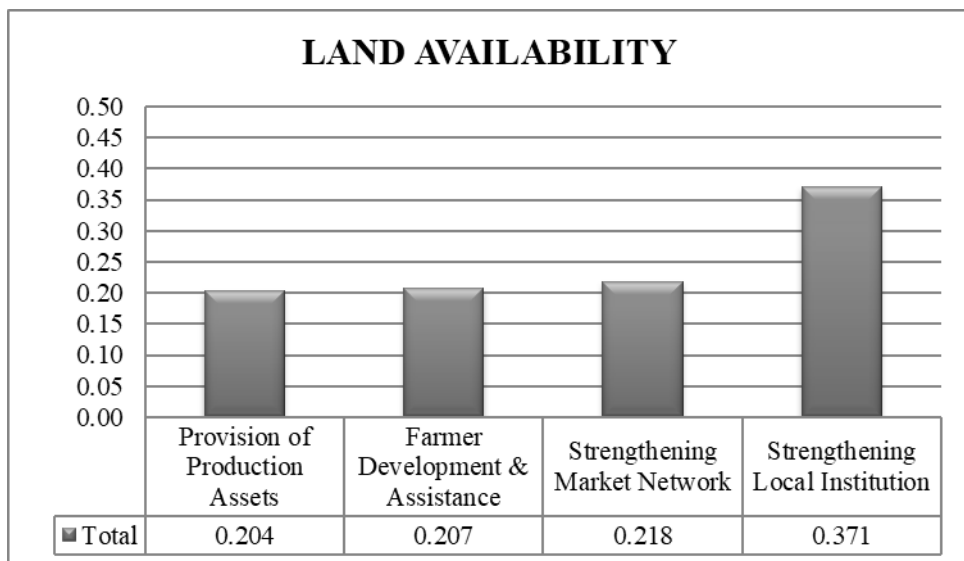
Figure 4.1.3.1.a. 1 Synthesis of Land Availability Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on economic factors in the land availability, all respondents gave the highest score to the Provision of Production Assets intervention amounted to 52.65%, slightly different from the Strengthening Local Institution intervention amounted to 52.06%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 15%, which means that the level of agreement of respondents is relatively low in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on economic factors.

Figure 4.1.3.1.a. 2 Results of Priority Synthesis of Land Availability



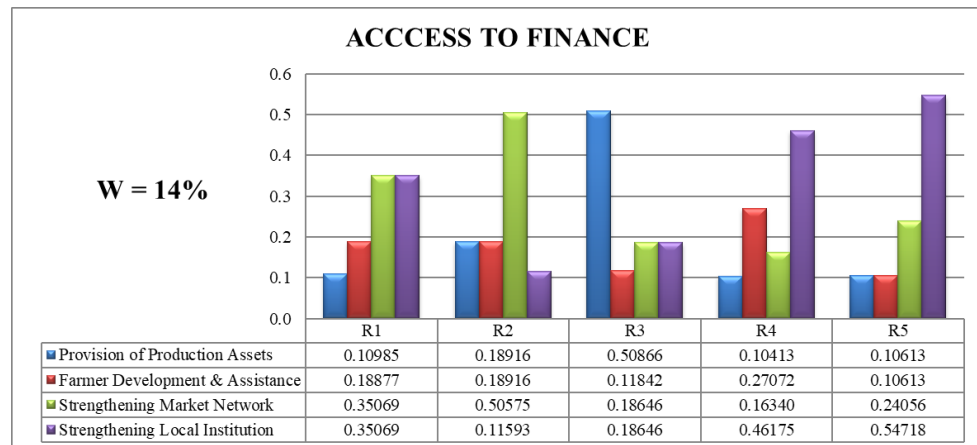
Source: Author's data processing

Despite a relatively low overall rater agreement of 15% on economic factors related to land availability, "Strengthening Local Institutions" emerged as the top priority intervention (37.1%). This was followed by "Strengthening Market Network" (21.8%), "Farmer Development & Assistance" (20.7%), and lastly, "Provision of Production Assets" (20.4%) as the lowest priority.

b. Analysis of Synthesis Results of Access to Finance Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on economic factors in the access to finance aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the access to finance aspect according to the opinion of all respondents as shown in the following figure:

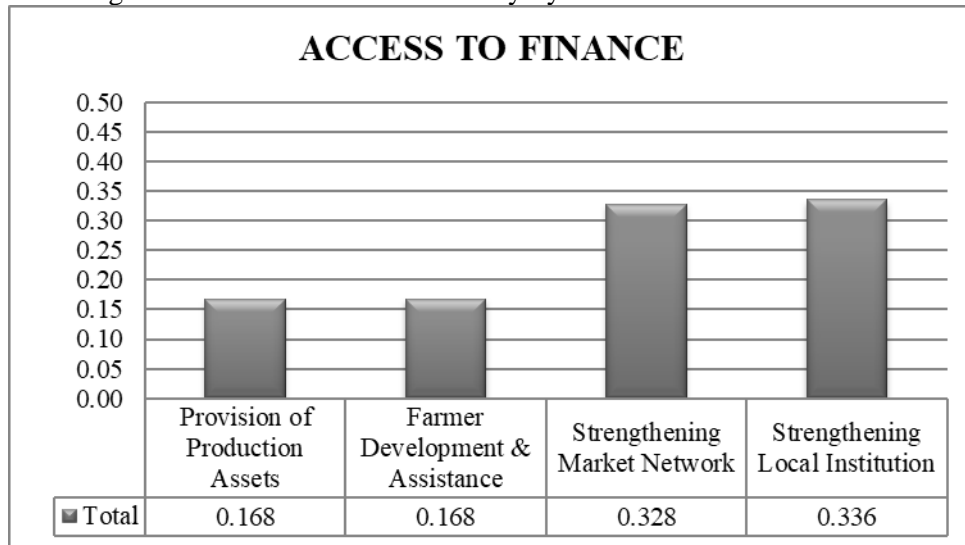
Figure 4.1.3.1.b. 1 Synthesis of Access to Finance Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on economic factors in the access to finance, all respondents gave the highest score to the Strengthening Local Institution intervention amounted to 54.72%, slightly different from the Provision of Production Assets intervention amounted to 50.87%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 14%, which means that the level of agreement of respondents is relatively low in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on economic factors.

Figure 4.1.3.1.b. 2 Results of Priority Synthesis of Access to Finance



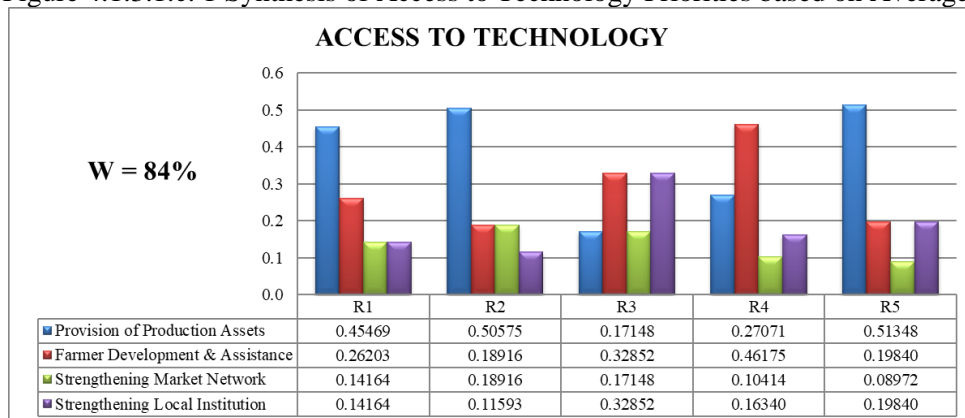
Source: Author's data processing

Despite a relatively low overall rater agreement of 14% on economic factors related to access to finance, "Strengthening Local Institutions" emerged as the top priority intervention (33.6%). This was followed by "Strengthening Market Network" (32.8%), "Provision of Production Assets" and "Farmer Development & Assistance" (16.8%) as the lowest priority.

c. Analysis of Synthesis Results of Access to Technology Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on economic factors in the access to technology aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the access to technology aspect according to the opinion of all respondents as shown in the following figure:

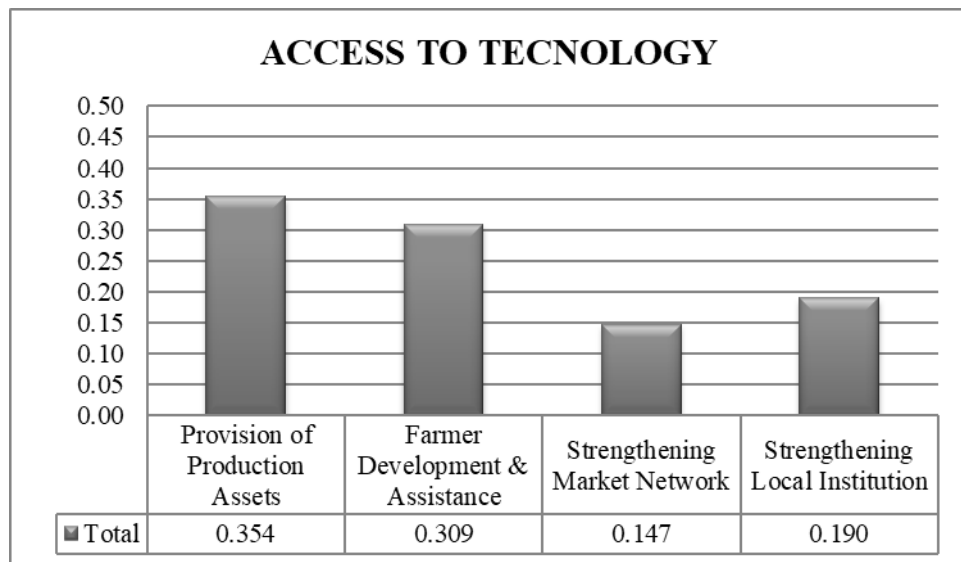
Figure 4.1.3.1.c. 1 Synthesis of Access to Technology Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on economic factors in the access to technology, all respondents gave the highest score to the Provision of Production Assets intervention amounted to 51.35%, slightly different from the Farmer Development & Assistance intervention amounted to 46.18%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 84%, which means that the level of agreement of respondents is quite high in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on economic factors.

Figure 4.1.3.1.c. 2 Results of Priority Synthesis of Access to Technology



Source: Author's data processing

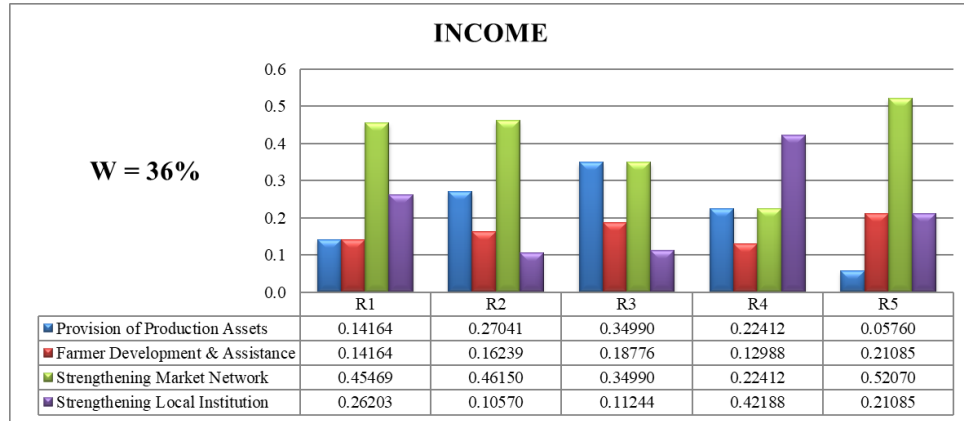
Despite a quite high overall rater agreement of 84% on economic factors related to access to technology, "Provision of Production Assets" emerged as the top priority intervention (35.4%). This was followed by "Farmer Development & Assistance" (30.9%), "Strengthening Local Institution" (19%), and lastly, "Strengthening Market Network" (14.7%) as the lowest priority.

d. Analysis of Synthesis Results of Income Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on economic factors in the income aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on

the income aspect according to the opinion of all respondents as shown in the following figure:

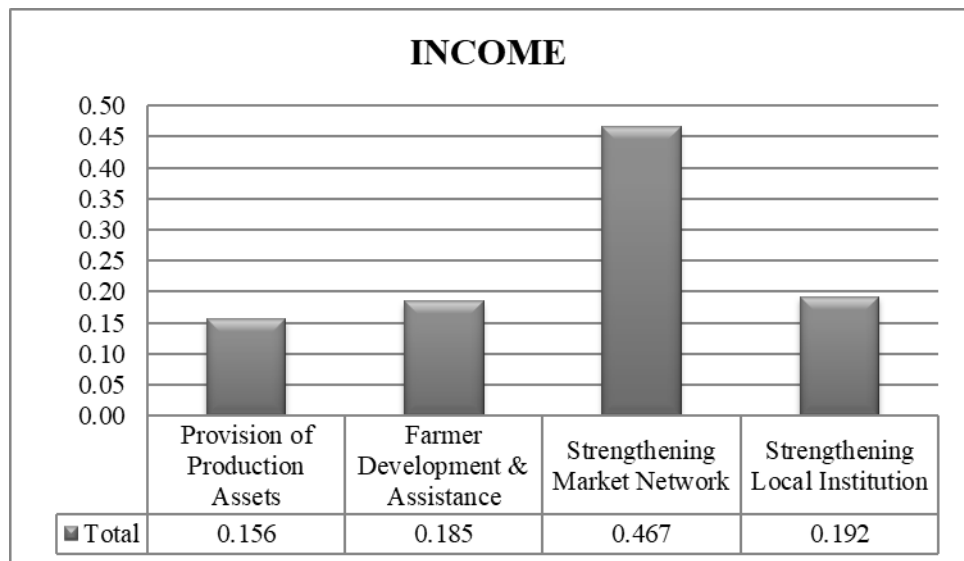
Figure 4.1.3.1.d. 1 Synthesis of Income Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on economic factors in the income, all respondents gave the highest score to the Strengthening Market Network intervention amounted to 46.15%, slightly different from the Strengthening Local Institution intervention amounted to 42.19%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 36%, which means that the level of agreement of respondents is relatively low in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on economic factors.

Figure 4.1.3.1.d. 2 Results of Priority Synthesis of Income



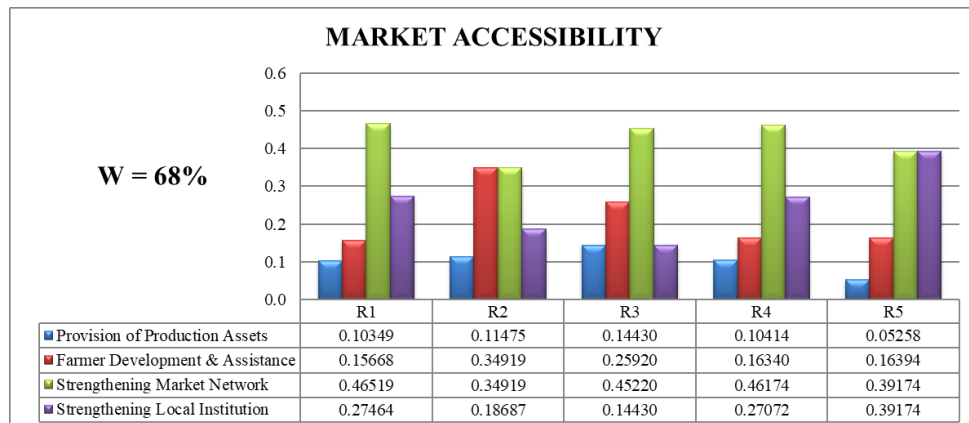
Source: Author's data processing

Despite a relatively low overall rater agreement of 36% on economic factors related to income, "Strengthening Market Network" emerged as the top priority intervention (46.7%). This was followed by "Strengthening Local Institution" (19.2%), "Farmer Development & Assistance" (18.5%), and lastly, "Provision of Production Assets" (15.6%) as the lowest priority.

e. Analysis of Synthesis Results of Market Accessibility Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on economic factors in the market accessibility aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the market accessibility aspect according to the opinion of all respondents as shown in the following figure:

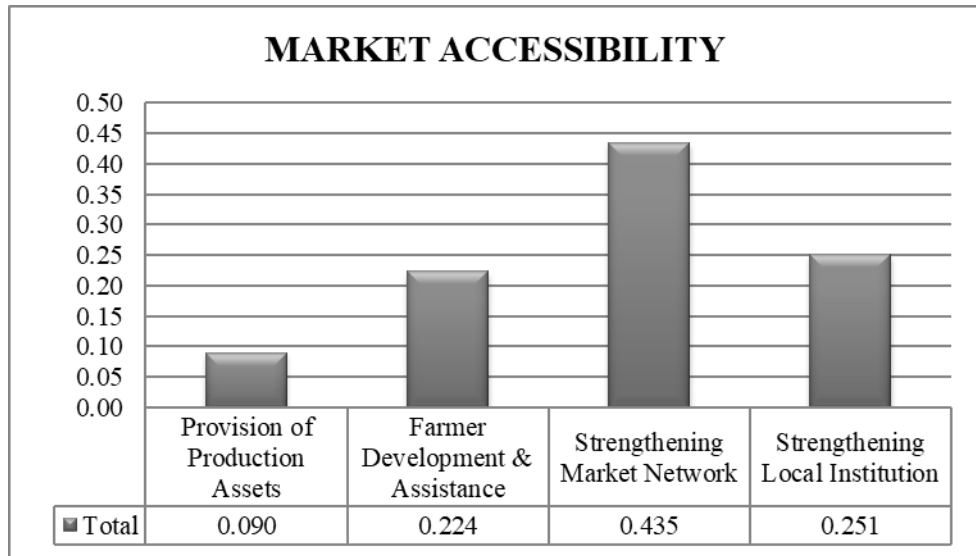
Figure 4.1.3.1.e. 1 Synthesis of Market Accessibility Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on economic factors in the market accessibility, all respondents gave the highest score to the Strengthening Market Network intervention amounted to 46.52%, slightly different from the Strengthening Local Institution intervention amounted to 39.17%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 68%, which means that the level of agreement of respondents is quite high in determining the priority of the Dompot Dhuafa intervention in Desa Tani Program based on economic factors.

Figure 4.1.3.1.e. 2 Results of Priority Synthesis of Market Accessibility



Source: Author's data processing

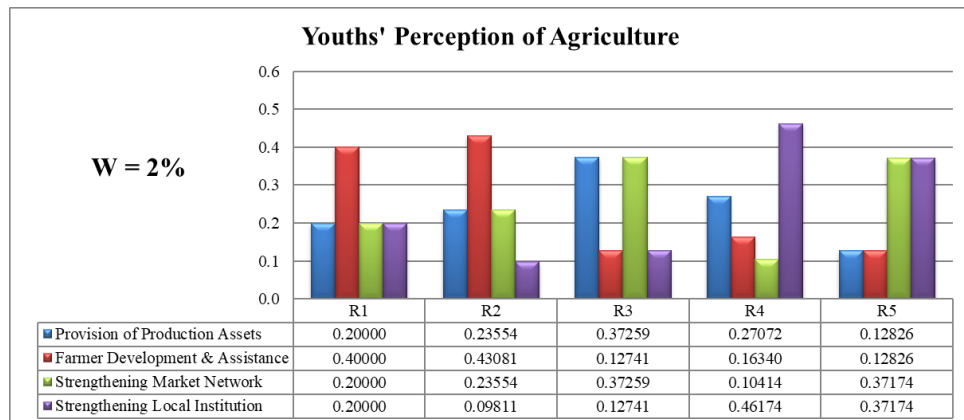
Despite a quite high overall rater agreement of 68% on economic factors related to market accessibility, "Strengthening Market Network" emerged as the top priority intervention (43.5%). This was followed by "Strengthening Local Institution" (25.1%), "Farmer Development & Assistance" (22.4%), and lastly, "Provision of Production Assets" (9%) as the lowest priority.

4.1.3.2. Analysis of Synthesis Results of the Program Intervention based on Social Factor

a. Analysis of Synthesis Results of Youth' Perception of Agriculture Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on social factors in the youth' perception of agriculture aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the youth' perception of agriculture aspect according to the opinion of all respondents as shown in the following figure:

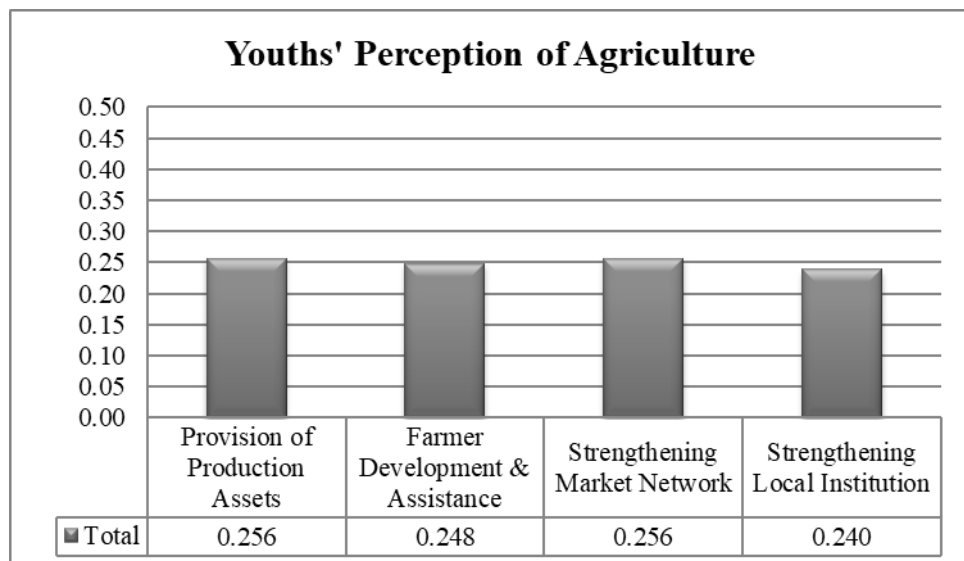
Figure 4.1.3.2.a. 1 Synthesis of Youth' Perception of Agriculture Priorities



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on social factors in the youth' perception of agriculture, all respondents gave the highest score to the Strengthening Local Institution intervention amounted to 46.18%, slightly different from the Farmer Development & Assistance intervention amounted to 43.08%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 2%, which means that the level of agreement of respondents is low in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on social factors.

Figure 4.1.3.2.a. 2 Results of Priority Synthesis of Youth' Perception of Agriculture



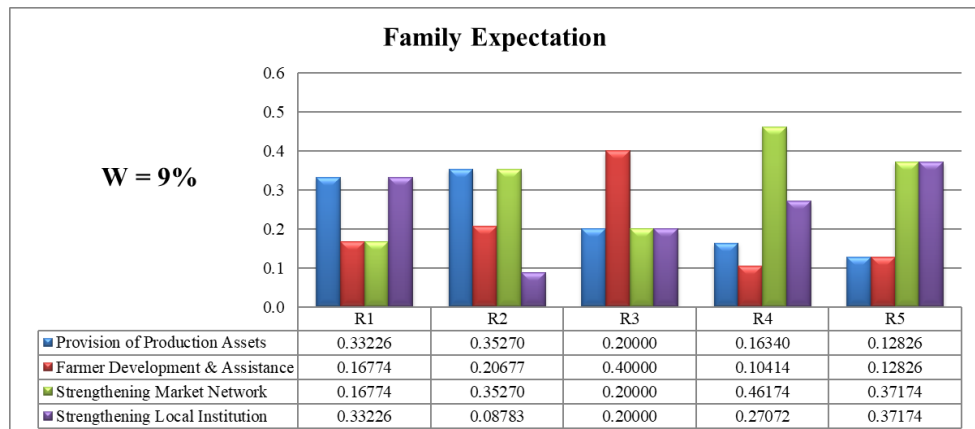
Source: Author's data processing

Despite a low overall rater agreement of 2% on social factors related to youth' perception of agriculture, "Provision of Production Assets" and "Strengthening Market Network" emerged as the top priority intervention (25.6%). This was followed by "Farmer Development & Assistance" (24.8%), and lastly, "Strengthening Local Institution" (24%) as the lowest priority.

b. Analysis of Synthesis Results of Family Expectation Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on social factors in the family expectation aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the family expectation aspect according to the opinion of all respondents as shown in the following figure:

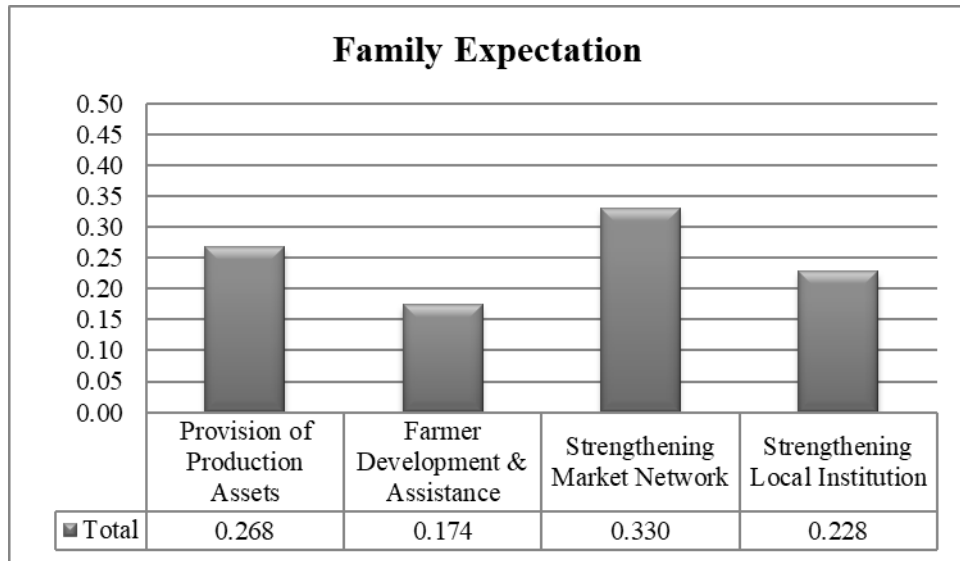
Figure 4.1.3.2.b. 1 Synthesis of Family Expectation Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on social factors in the family expectation, all respondents gave the highest score to the Strengthening Market Network intervention amounted to 46.18%, slightly different from the Strengthening Local Institution intervention amounted to 37.17%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 9%, which means that the level of agreement of respondents is low in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on social factors.

Figure 4.1.3.2.b. 2 Results of Priority Synthesis of Family Expectation



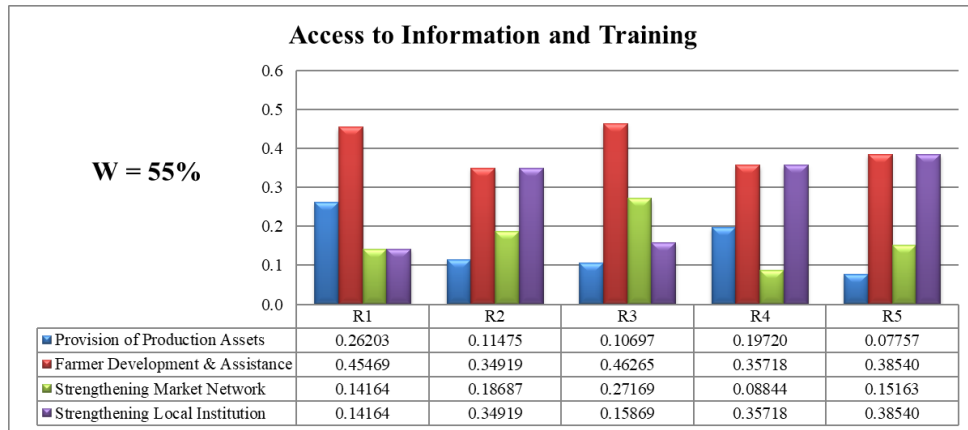
Source: Author's data processing

Despite a low overall rater agreement of 9% on social factors related to family expectation, "Strengthening Market Network" emerged as the top priority intervention (33%). This was followed by "Provision of Production Assets" (26.8%), "Strengthening Local Institution" (22.8%), and lastly, "Farmer Development & Assistance" (17.4%) as the lowest priority.

c. Analysis of Synthesis Results of Access to Information & Training Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on social factors in the access to information & training aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the access to information & training aspect according to the opinion of all respondents as shown in the following figure:

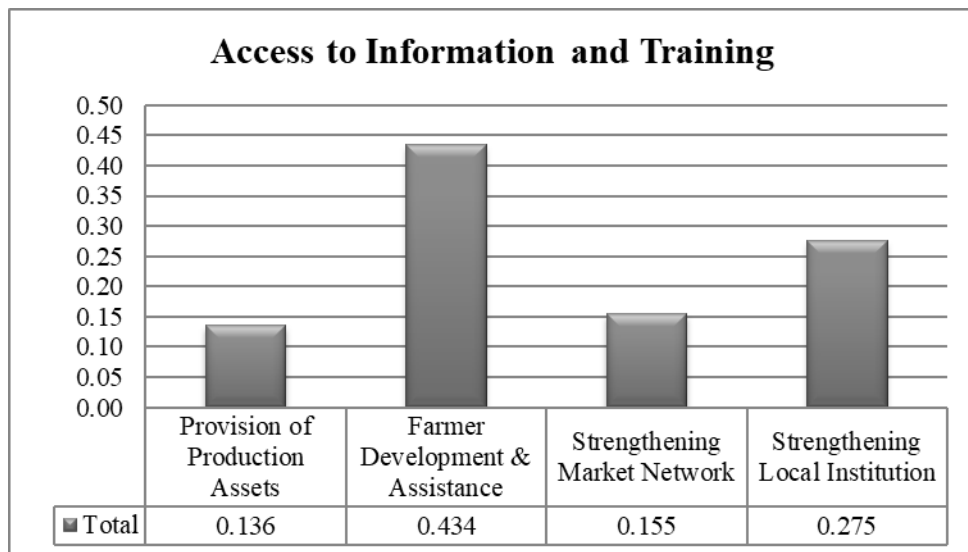
Figure 4.1.3.2.c. 1 Synthesis of Access to Information & Training Priorities



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on social factors in the access to information & training, all respondents gave the highest score to the Farmer Development & Assistance intervention amounted to 46.27%, slightly different from the Strengthening Local Institution intervention amounted to 38.54%. The agreement of all respondents resulted in an average W (rater agreement) of 55%, which means that the level of agreement of respondents is quite high in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on social factors.

Figure 4.1.3.2.c. 2 Results of Priority Synthesis of Access to Information & Training



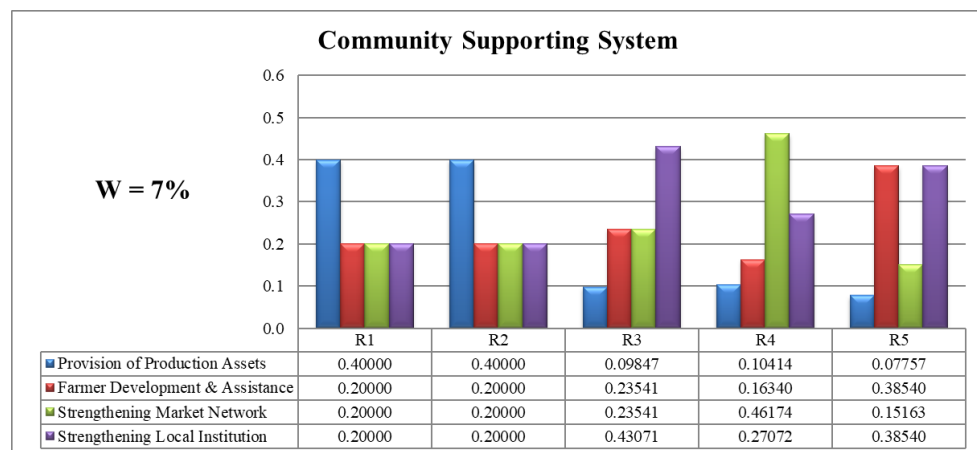
Source: Author's data processing

Despite a quite high overall rater agreement of 55% on social factors related to access to information & training, "Farmer Development & Assistance" emerged as the top priority intervention (43.4%). This was followed by "Strengthening Local Institution" (27.5%), "Strengthening Market Network" (15.5%), and lastly, "Provision of Production Assets" (13.6%) as the lowest priority.

d. Analysis of Synthesis Results of Community Supporting System Aspect

In this section, the results of Dompot Dhuafa interventions in the Desa Tani Program be described based on social factors in the community supporting system aspect. Based on the results of data processing through Super Decision software version 2.8.0, it was obtained that Dompot Dhuafa intervention priorities in the Desa Tani Program on the community supporting system aspect according to the opinion of all respondents as shown in the following figure:

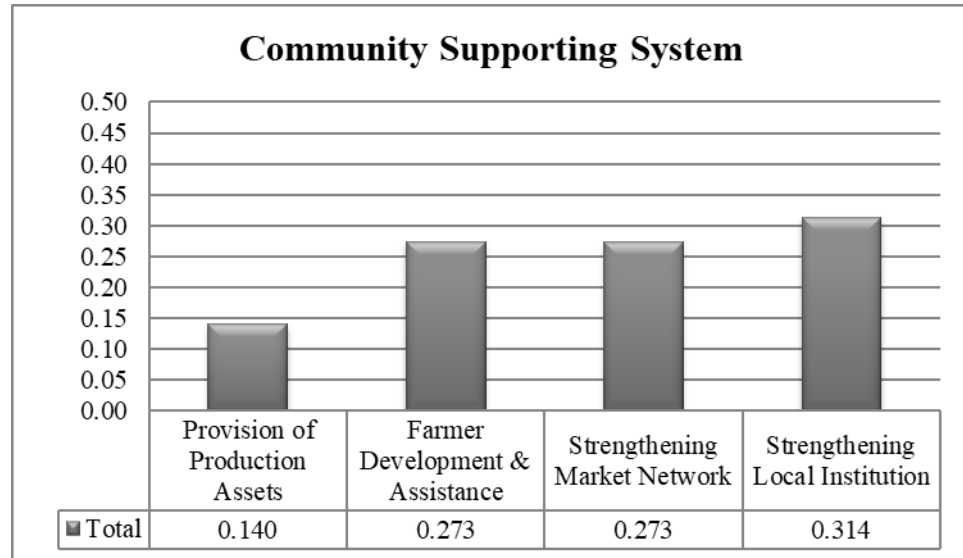
Figure 4.1.3.2.d. 1 Synthesis of Community Supporting System Priorities based on Average



Source: Author's data processing

Based on the respondents' agreement regarding the Dompot Dhuafa Intervention in the Desa Tani Program based on social factors in the community supporting system, all respondents gave the highest score to the Strengthening Market Network intervention amounted to 46.18%, slightly different from the Strengthening Local Institution intervention amounted to 43.07%. Furthermore, the agreement of all respondents resulted in an average W (rater agreement) of 7%, which means that the level of agreement of respondents is low in determining the priority of the Dompot Dhuafa intervention in the Desa Tani Program based on social factors.

Figure 4.1.3.2.d. 2 Results of Priority Synthesis of Community Supporting System



Source: Author's data processing

Despite a low overall rater agreement of 7% on social factors related to community supporting system, "Strengthening Local Institution" emerged as the top priority intervention (31.4%). This was followed by "Farmer Development & Assistance" and "Strengthening Market Network" (27.3%), and lastly, "Provision of Production Assets" (14%) as the lowest priority.

4.1.3.3. Mapping of All Dompot Dhuafa Interventions in the Desa Tani Program

This section describes the mapping results of the four Dompot Dhuafa interventions in the Desa Tani Program based on their level of importance in each indicator from both categories (economic and social factors). This analysis considers the relative significance of each intervention in addressing certain economic and social aspects that affect youth participation in agriculture.

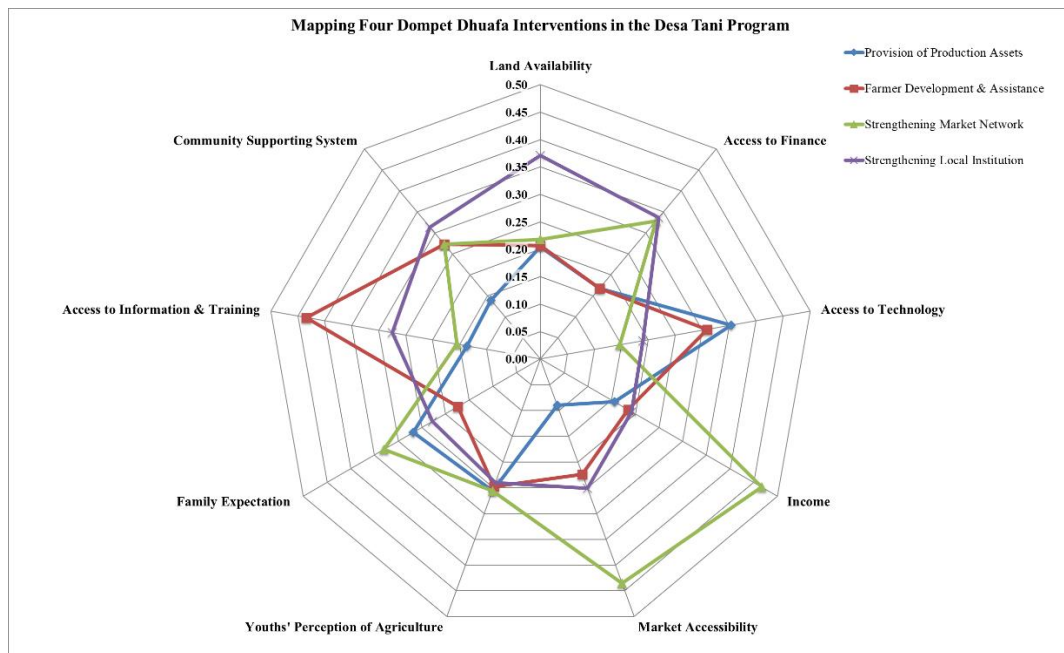
Table 4.1.3.3. 1 Comparison Table of All Interventions

Category	Indicator	Provision of Production Assets	Development & Assistance	Strengthening Market Network	Strengthening Local Institution	Total
Economic Factor	Land Availability	0.204	0.207	0.218	0.371	1.000
	Access to Finance	0.168	0.168	0.328	0.336	1.000
	Access to Technology	0.354	0.309	0.147	0.190	1.000
	Income	0.156	0.185	0.467	0.192	1.000
	Market Accessibility	0.090	0.224	0.435	0.251	1.000
Social Factor	Youths' Perception of Agriculture	0.256	0.248	0.256	0.240	1.000
	Family Expectation	0.268	0.174	0.330	0.228	1.000
	Access to Information & Community Supporting System	0.136	0.434	0.155	0.275	1.000
	Community Supporting System	0.140	0.273	0.273	0.314	1.000
	Total Average	0.197	0.247	0.290	0.266	1.000

Source: Author's data processing

Based on the results of data processing from respondents, the intervention priorities for Dompot Dhuafa in the Desa Tani Program were obtained, as visualized in the following radar graph. This graph provides a comprehensive overview of the interventions' effectiveness in tackling various factors and their overall contribution to program's goals.

Figure 4.1.3.3. 1 Radar Chart of All Dompot Dhuafa Interventions in the Desa Tani Program



Source: Author's data processing

Based on the graph above, the highest priority intervention is "Strengthening Market Network," with a score of 0.290. The priorities of this intervention are:

- Economics Factor, in the "Income" aspect with a score of 0.467.
- Social Factor, in the "Family Expectation" aspect with a score of 0.330.

The second highest priority intervention is "Strengthening Local Institutions," with a score of 0.266. The priorities of this intervention are:

- Economics Factor, in the "Access to Finance" aspect with a score of 0.336.
- Social Factor, in the "Community Supporting System" aspect with a score of 0.314.

4.2. Discussion

4.2.1. General Description of Research Locations

Lembang is an iconic area located in West Bandung Regency, West Java, which is famous for its stunning natural scenery and interesting tourist attractions. However, behind its aesthetic appeal, there is great potential in Lembang for agricultural growth with

supportive natural conditions that provide optimal growing conditions, a variety of high-quality products produced here; along with various advantages that make Lembang an attractive horticultural agrotourism destination.

Lembang offers ideal growing conditions, with an average air temperature (17°C) and humidity of 70-80%, both of which are ideal conditions for cultivating various horticultural crops. With an altitude of 1,400-1,700 meters above sea level, its altitude allows for the cultivation of species that cannot thrive in other places, such as lowlands. In addition, fertile soil rich in organic matter combined with regular rainfall (1,500-2,000 mm per year) makes Lembang an attractive environment for gardening and farming.

Lembang produces many premium quality horticultural products, from vegetables, fruits, and fresh flowers to medicinal plants. The Lembang community lives in the middle of fertile rice fields, with strong local wisdom, they demonstrate mutual cooperation through daily agricultural activities, such as planting crops to harvesting the harvest

However, Lembang residents face their own obstacles due to their relatively low level of education. Limited access to training can hinder innovation and product improvement efforts. In addition, frequent fluctuations in agricultural product prices are also an obstacle that hinders financial planning efforts because sources of income fluctuate sporadically and threaten income stability.

4.2.2. Overview of Desa Tani Program by Dompot Dhuafa

Dompot Dhuafa offers an economic empowerment program specifically suited to farmer groups called Desa Tani Program, designed to alleviate poverty through vegetable farming development. This economic empowerment initiative serves the poor or middle-low-income level individuals involved with gardening agriculture with efforts at alleviating poverty through vegetable production. Farmers from poor community groups are empowered to manage agricultural land with a mentoring scheme.

This program was first implemented in 2018 by Dompot Dhuafa in collaboration with local farmers in an area of 1.2 hectares in Cibodas, Lembang, West Java, with 12 program beneficiaries. The initiative for this program came from a local youth farmer, Mang Ade, who was also a *mustahik*. He introduced the business model of this program to Dompot Dhuafa, and the Desa Tani Program was born.

As the program developed, Dompot Dhuafa and Mang Ade started looking for state land (PTPN) that could be rented to expand the program. In 2022, the program successfully

gained access to 10 hectares of state land from PTPN (State-Owned Plantation Company) at a more affordable rental price than private land, which is 19 million rupiah per year. Dompot Dhuafa and Mang Ade also made an MoU (Memorandum of Understanding) with PTPN for a period of 15 years, with the rental fees covered by the Dompot Dhuafa using Zakat funds.

Upon receiving the land, the local farmers who participate in the Desa Tani program gain ownership rights to manage the land effectively and generate income. The program, through Agronative Cooperative (a local institution established by Dompot Dhuafa), also provides agricultural resources such as seeds, fertilizers, and pesticides. Typically, farmers repay these resources upon harvesting their crops, but the current scheme allows for monthly deductions from their harvest earnings by Agronative Cooperative.

The aim of the program is to increase the income of horticultural farmers, who are *mustahik* or beneficiaries and to provide market guarantees to farmers so that they continue to increase their income. Currently, in 2024, it has grown on 10 hectares of land and the number of beneficiaries of the program is 62 families. A closer look through the interview and analysis of the program report provides nuanced insights into the tangible effect of Desa Tani Program.

This program involves the formation of farmer groups consisting of beneficiaries. Beneficiaries receive rental assistance for land for an agreed upon duration period, assistance with agricultural production facilities and training on business management techniques and successful agricultural cultivation techniques. Furthermore, this program stresses protecting the environment by using less chemicals in agriculture production processes.

Desa Tani program beneficiaries include poor households that possess both the desire and skills for farming. Prioritizing productive age groups to promote farmer regeneration within villages. Beneficiaries (*mustahik*) are individuals or households living below poverty who possess both willingness and spirit for hard work, particularly among age-groups such as *mustahik* inti plasma who cultivate land while receiving capacity development training, while *mustahik* Mandiri members enjoy product absorption guarantees (yield protection) from commodity production networks.

Desa Tani offers a comprehensive program scheme, covering on-farm and off-farm activities. On-farm activities encompass production, assistance, asset provision (compost

houses, livestock houses and Saprodi houses), marketing crops, initiating derivative businesses and developing export markets; while off-farm activities include marketing crops, initiating derivative businesses and expanding export markets. Desa Tani begins its intervention scheme with an assessment and field survey followed by group formation, land rent assistance provision or production capital provision and group capacity development with group capacity development being strengthened further expanded business expansion or market expansion before strengthening networks & program communication.

In year two of Desa Tani, farmers' groups became *Agronative* Cooperative institutions managed by beneficiary farmers. The cooperative have an important part in Desa Tani, from upstream production to downstream marketing (such as absorption of farmers' harvests) and offering training and guidance to its member farmers as well as providing production facilities. This entity has a very valuable function.

Desa Tani offers a variety of benefits that make it a comprehensive and sustainable empowerment program. Focusing on healthy farming with minimal use of chemicals, this initiative produces superior quality products that are environmentally friendly. Their comprehensive empowerment approach involves providing production assets such as land and equipment, cultivation training, and selling the harvest in the market. The involvement of the cooperative in managing the harvest ensures that farmers receive fair and stable prices while opening access to wider markets, while expanding income and welfare while contributing to environmental sustainability. Desa Tani uses smart agricultural technology in greenhouses as part of their plan to significantly increase productivity and harvest quality.

The four main interventions of the Desa Tani program contribute to the holistic development of beneficiary farmers while upholding the principles of Islamic management embedded in Zakat. These four interventions are: (1) Provision of Production Assets for beneficiary farmers; (2) Farmer Development & Assistance provided to beneficiary farmers to increase their knowledge and abilities; (3) Strengthening Market Network so as to expand selling power/uptake of Desai Tani products wider; and (4) Strengthening Local Institution or in this case the formation of the *Agronative* cooperation. This program framework aligns seamlessly with the principles of Islamic stewardship embedded in zakat, embodying the core tenets of protecting religion (حفظ الدين), intellect (حفظ العقل), and life (حفظ النفس).

Desa Tani program also offers land management (from planting to harvesting to get good quality products), sustainable agriculture, and meaningful social contributions, which are aspects that are in line with the aspirations of the younger generation. By

channelling zakat funds towards agricultural development initiatives in Cibodas, Lembang, this program has been able to provide necessary resources for implementing sustainable practices, including the provision of production assets (such as production resources, greenhouse, land, and the adoption of IoT-based technology), farmer development & assistance, strengthening market network and local institution.

All the interventions carried out by Dompot Dhuafa on Desa Tani have allowed farmers to adopt environmentally friendly techniques, reduce reliability on chemical inputs, improve productivity and increase the profit with several sources of their revenue streams, such as vegetable farming, edu-agrotourism, packing house, guesthouse, and Saprodi Cooperation that sell various kinds of agricultural products from their crops (see the table below). In 2022, they have exported their crops of baby beans to Singapore and Hong Kong.

Table 4.2.2. 1 The Revenue Stream of Desa Tani Program

1	2	3	4	5	6	7
Vegetable Farming	Edu-tourism	Packing House	Guest Houses	SAPRODI (Production Facilities)	Seed House	Animal Farm
Existing and Potential Revenue Units in the Desa Tani Area						

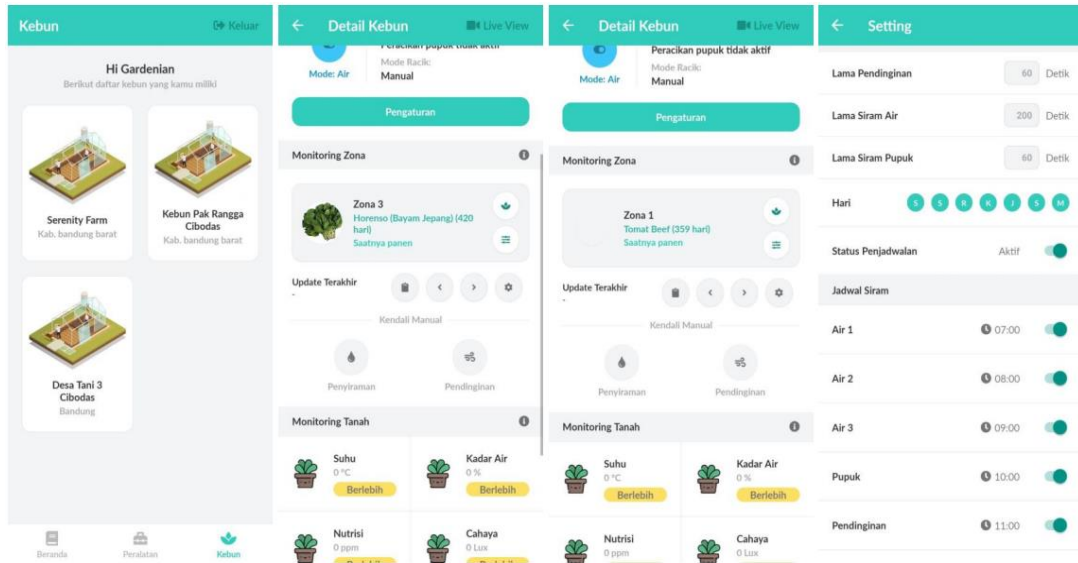
Source: Report of DESA TANI program by Dompot Dhuafa, 2022.

It has even been planned to increase their revenue stream from animal farms, and the concept of the farming will be integrated farming, so that these farmers can earn sufficient profits. And the most supportive factor in the management of the Desa Tani program is the presence of local figures who are leaders and role models in the program, such as: Mang Ade, Mang Dadan, and Mang Jajang. Local figures act as catalysts, who realize the potential for success in their communities. Ware et al (2019) have shown how social influence and positive role models can lead to behavioral change in communities.

Dompot Dhuafa's involvement has encouraged knowledge sharing, capacity building, and the dissemination of best practices among 62 beneficiary families, encouraging an ethos of sustainable agricultural management among them. Furthermore, Desa Tani aligns itself with Sustainable Development Goals 1 to 17 which show its broad social impact; specifically no poverty, no hunger, gender equality, partnerships to achieve goals, is a holistic approach that goes beyond economic improvement alone to encompass a broader idea of sustainable development embodied by Desa Tani not only as an agricultural program but as a holistic model that encourages sustainability, economic resilience, global integration among beneficiary households, and economic resilience through the transfer of local knowledge among its beneficiaries.

One of the key factors in changing the perception of agriculture lies in its integration with modern technology into the greenhouse. Interviews with program beneficiaries revealed how precision farming tools, data analysis tools, and agricultural applications have revolutionized traditional farming methods. Shiferaw et al (2009) noted how adopting modern technology helps improve efficiency while reducing risks while positioning agriculture as an innovative livelihood option.

Figure 4.2.2. 1 The Adoption of IoT-based Technology in Desa Tani Program



Source: *Desa Tani Report, 2022.*

Farmers who utilize precision farming tools, data analytics and agricultural apps are able to optimize production while simultaneously mitigating risks and staying current with agricultural trends. Entrepreneurial opportunities provide additional incentives, providing individuals with higher incomes and financial independence through farming.

4.2.3. The Effect of Zakat Empowerment Program on Youth Farmer Participation

The research findings, collected through both quantitative surveys and qualitative interviews, provide strong evidence of the various effects of the Zakat Empowerment Program (Desa Tani Program) on young farmer participation. In addition to the statistical significance alone as demonstrated by the Mann-Whitney U Test analysis, its influence can also be felt through personal experiences, perceptions, and aspirations as revealed through interview data collection.

a) Motivation to Pursue Agriculture as a Livelihood

The quantitative analyses, particularly the Mann-Whitney U Test, reveal significant disparity between youth farmers participating in the program and those not.

Table 4.2.3.a. 1 Income Before (2018) and Recent Year (2024) of Program

Income Before The Year of Program	Participants	Non-participants	Income in Recent Year (2024)	Participants	Non-participants
≤2,000,000	58.9% (20)	60.0% (6)	≤2,000,000	2.9% (1)	50.0% (5)
2.1 to ≤ 3 million	35.3% (12)	20.0% (2)	2.1 to ≤ 3 million	35.3% (12)	30.0% (3)
3.1 to ≤ 4 million	2.9% (1)	0.0% (0)	3.1 to ≤ 4 million	32.4% (11)	0.0% (0)
4.1 to ≤ 5 million	2.9% (1)	10.0% (1)	4.1 to ≤ 5 million	23.5% (8)	10.0% (1)
≥ 5.1 million	0.0% (0)	10.0% (1)	≥ 5.1 million	5.9% (2)	10.0% (1)
Total Average	Rp2.000.000	Rp 2.400.000	Total Average	Rp3.441.176	Rp 2.500.000

Source: Author's data processing

Program participants showed higher intentions to pursue farming as a career due to the positive outlook that developed through participation. Furthermore, qualitative data supported this claim with participants feeling a new sense of pride and purpose in their farming activities.

Mamat expressed how proud they felt of being farmers when young people took an interest in agriculture, *"I actually feel proud to be a farmer, especially when there are young people interested in the world of agriculture,"* while Hidayat noted the immense learning experience offered through farming, *"For me, there's a lot to learn from farming. Before the harvest, there's a process. I enjoy every step of the farming process. Also, I learn new things and get new income"*.

These sentiments, echoed by other participants, underscore the effectiveness of the program's effectiveness in changing perceptions and inspiring young people to view farming as a respected and fulfilling profession. Conversely, some non-participants expressed a desire to leave agriculture, as Oman who expressed an intention of leaving agricultural sector, *"If there's an opportunity elsewhere, I'm willing to work outside. If there's a chance outside, I would take it. Farming is self-standing, but you also bear the risks alone"*.

b) Access to Resources

Dompot Dhuafa's support in providing these resources has been invaluable. Mamat noted how access to financial support and agricultural inputs through the program was instrumental in his decision to pursue farming. Furthermore, participants reported overcoming some of the traditional barriers associated with farming such as lack of land,

according to Dentris. However, Hidayat noted the lack of fertilizer due to competition for shared equipment such as drums and hoses as another potential downside to participation.

Non-participants face greater challenges in accessing necessary resources than participants, due to the high cost and limited availability of inputs such as seeds and fertilizer. They typically rely on personal savings or informal loans as a means to obtain these essential items, Sholihin noted the high prices attached to agricultural inputs. Meanwhile, non-participant *Muzakki* typically have better access to resources due to financial stability despite some challenges related to rising input costs.

c) Economic Effect

This program has had an undeniably positive effect on its participants' economic situations. Through training and access to better markets provided by this initiative, they have seen higher productivity and greater income stability for themselves, and most interviewees have stated their income had become more consistent since joining. Most interviewees agreed their earnings had become more predictable after participating in this initiative.

Nonparticipants (*mustahik*) in contrast reported fluctuating incomes with less economic stability due to traditional farming methods and their limited access to better markets, and Oman described his income as unsteady; additional jobs had to be taken up in order to supplement farming earnings. Muzaki non-participants generally enjoyed more secure economic situations due to diverse income sources but still faced economic issues arising from market fluctuations.

The quantitative data reveals a substantial increase in income for participants. Before joining the program, 58.8% of participants earned less than IDR 2,000,000, while after joining, only 2.9% remained in this income bracket. Furthermore, a significant portion (29.4%) now earns between IDR 4.1 to 5 million, and 5.9% earn more than IDR 5.1 million. This upward income mobility is in stark contrast to the non-participant group, where 50% still earn less than IDR 2,000,000, and only 10% earn more than IDR 5.1 million, which are on *Muzakki* status. These results demonstrate both tangible economic benefits as well as its capacity for increasing socioeconomic status among youth farmers.

Additionally, *Agronative's* yield protection scheme has proven indispensable in offering financial security to farmers. This yield protection mechanism ensures farmers receive compensation should crop failure occur due to extreme weather or pest infestation,

providing economic security that allows youth farmers to focus more confidently on their agricultural endeavours.

d) Community and Social Effect

The program fosters a strong sense of community among participants, offering mutual support that has played an invaluable role in maintaining participation and encouraging newcomers to farming. Hidayat, Iman and Aseng spoke highly of fellow program participants. Hidayat spoke highly of Iman Aseng who all spoke positively of how much support they received from fellow program participants who offered friendship as well as the role of mentors who gave newcomers to farming more confidence when starting out in farming.

This sense of community is especially important for newcomers starting out in farming who need guidance as mentors provide a network of peers who provide vital support as peer learning as mentors provide a network to learn from each other as they learn together peers with mentors who can be relied on as learning and relied on during their first time in farming provide an invaluable network of mentors to learn from each other while becoming engaged participants through community engagement themselves as this network provides.

Nonparticipants (*mustahik*) were lacking this sense of structured community support, although informal ties did exist, they did not offer as much help and encouragement than experienced by participants of the program. Sholihin noted this lack of community support as one of his challenges when working alone while non-participants (*muzakki*) enjoyed strong community ties but were unaware of structured support provided.

e) Challenges Faced

Participants Even with all of the support provided by the program, participants still experienced challenges like weather variability and market fluctuations, pest/disease management and time restrictions due to additional jobs. Although training and resources from the program helped mitigate some issues related to smart farming applications being ineffective or competition for shared resources such as fertilizers; Iman noted frequent shortages.

Nonparticipants (*mustahik*) faced additional hardships, such as high input costs and limited access to modern farming techniques; greater market and weather risks; difficulties accessing affordable resources, among others. Entang's nonparticipants noted their

difficulty accessing them at reasonable costs while non-participants (*muzakki*) still faced challenges related to input costs and market risks despite financial stability.

f) Youth's Willingness to Pursue Agriculture as a Livelihood

The program has successfully changed youth perception of agriculture as an attractive livelihood option, leading them to view it more favourably as an option of livelihood than before. Many participants expressed pride and optimism regarding agriculture; Hidayat and Iman expressed particularly high levels of commitment toward continuing and even expanding their farming activities and expanding operations. Some acknowledged time limitations associated with farming, but many also highlighted its advantages as an option despite such obstacles.

Nonparticipants (*mustahik*) often had mixed views about farming as an occupation. Some perceived it as an attempt at survival due to limited opportunities elsewhere and due to an absence of structured support and training; Entang particularly saw farming as less than ideal due to limited employment options elsewhere, while non-participants (*muzakki*) often saw agriculture more positively, often as an additional income source rather than primary livelihood.

g) Future Aspirations

Participants in the program expressed ambitions to expand their farming activities, adopt more advanced techniques, mentor new farmers, and mentor more advanced farmers. The program instilled hope and optimism. Mamat and Aseng expressed a desire to learn more, expand their land holdings, and apply smart farming techniques in future ventures.

Non-participants (*mustahik*) had more modest aspirations that focused on immediate survival rather than long-term development due to limited access to resources and support; their primary goal was to secure a stable income to support their families. On the other hand, non-participants (*muzakki*) often sought to expand or diversify their farming businesses or add related businesses as part of their plans for expansion or diversification.

h) Integration of Quantitative and Qualitative Findings

Integrating quantitative and qualitative findings provides a comprehensive picture of the effect of the Desa Tani Program. While quantitative analysis often reveals statistical significance, interview responses provide rich narratives and personal stories that add a personal element that strengthens the overall validity and reliability, resulting in a more comprehensive understanding of the program's effect.

Qualitative data suggest that the program's effect varies across participants. Some individuals experience more profound changes in their perceptions and livelihoods than others. Variability can be explained by factors such as motivation, prior experience, and access to resources; those from farming families may have different expectations than those new to farming. Dentris' statement "*My father used to work as a farmer when still alive; my mother took part in wedding planning*" shows this dynamic, as do statements by Arin Hilman Iman Grei Fikri Lukman Rimon Mulyana Indra Ikhsan Amilah who do not hail from farming backgrounds.

Understanding these individual differences allows program administrators to tailor interventions more closely to the diverse needs and aspirations of youth farmers. Interviews also revealed the importance of social networks and peer support in ensuring the success of the program. Participants often noted learning from fellow farmers in the program. This sense of community not only improved their technical skills but also provided emotional support that made farming-related challenges easier to overcome. This is evident in Aseng's statement, "*The attraction here is that we can add to our circle of friends. In the group, we help each other out*".

i) Additional Discussion about Transforming *Mustahik* to *Muzakki*

An important aspect of the program's effect is the potential transformation of participants from *mustahik* (zakat recipients) to *muzakki* (zakat givers). This transition signifies a substantial improvement in their economic well-being and highlights the program's effectiveness in promoting financial independence. Even Mang Ade (the program administrator) also mentioned that this program is only a forum, facilitator, and means for them to be independent and open up opportunities for transformation from *mustahik* to *muzakki* for each program participant.

However, since the Desa Tani program was implemented, no members have left *mustahik* status. Nevertheless, based on experience and evidence from interviews, it shows that several participants have experienced significant income growth, so they have the potential to reach the threshold for becoming *muzakki*. This potential is reflected in their willingness to contribute through *infaq* and *shodaqoh*, voluntary charitable donations made during their monthly Muslim study sessions. This indicates a growing awareness and commitment to fulfilling religious obligations, which often accompanies improved economic well-being.

This potential transformation not only benefits individuals but also contributes to the sustainability of the zakat system by increasing the number of potential donors. If this

can be achieved through the Desa Tani program, the success stories of farmers who have changed their status to *muzakki* will be a source of inspiration and motivation for others. Their willingness to share their knowledge and experiences can encourage more young people to participate in the Desa Tani program, ultimately improving agriculture as an industry. By emphasizing community building and knowledge exchange, Desa Tani fosters an environment where successful farmers support and inspire each other to empower each other within the farming community.

In short, the Desa Tani Program has had a tremendous effect on young farmer participation by providing necessary resources, fostering community support, and increasing economic stability. These factors have together fostered a more positive view of agriculture among youth farmers, thus encouraging continued involvement and expansion in this field of endeavour.

4.2.4. Challenges and Opportunities in Promoting Youth Participation

Promoting youth engagement in agriculture through the Zakat Empowerment Program, the Desa Tani Program, presents both challenges and opportunities, according to research findings obtained from quantitative surveys and qualitative interviews conducted. The analysis highlights several areas where the program is struggling as well as areas with potential for expansion, growth and improvement.

A. Challenges in Promoting Youth Participation

1. Economic Barriers

One of the most significant challenges for youth farmers is the lack of access to capital. Many non-participants, especially those eligible to receive zakat (*mustahik*), cited the high cost of inputs such as seeds, fertilizers, and technology as a major barrier. Sholihin, for example, cited difficulties in obtaining loans and the high cost of agricultural inputs. This challenge is further exacerbated by the fact that many non-participant *mustahik* do not have collateral or credit history, making it difficult for them to access formal financial services.

Although the program has improved income security for participants, non-participant *mustahik* continue to face fluctuating and often insufficient incomes. According to quantitative data collected during the implementation of the *mustahik* program in 2016, many non-participant *mustahik* earn less than IDR 2,000,000 per year, reflecting the economic instability that prevents young people from pursuing agricultural livelihoods. Given the differences in stability between households

participating in the program and non-participant *mustahik*, this underscores the need for targeted interventions to alleviate economic challenges outside the program.

2. Market Condition

Both participants and non-participants identified the difficulties caused by market fluctuations as challenges they must navigate to secure stable prices for their produce. Fikri (the *Agronative* cooperation representative) mentioned difficulties in securing stable market prices for the farmer's produce. Non-participants face even greater challenges due to limited access to better markets and reliance on traditional selling methods, which often result in lower prices and higher vulnerability to market volatility. Strengthen market linkages by equipping farmers with tools and knowledge necessary for dealing with unpredictable markets, according to an ANP analysis, strengthening market networks is the single most influential intervention when it comes to income generation, being given top priority as "Income" (0.467).

3. Social Perception and Stigma

A persistent challenge facing farming programs is their image problem among youth and their families, specifically youth farmers themselves, who frequently perceive farming to be less desirable as an occupation than urban jobs, something Mang Ade noted was difficult despite efforts made by programs. Addressing stigma requires taking multiple approaches such as public awareness campaigns, educational initiatives, as well as sharing success stories of youth farmers benefited by such programs.

4. Technical Knowledge and Skills

Nonparticipants (*mustahik*) often lack access to training and technical knowledge necessary for improving their farming practices. This makes adopting modern farming techniques difficult while increasing reliance on less efficient traditional techniques. Program success providing training and education shows its effect reach among participants while expanding these programs to reach broader audiences, particularly *mustahik* youth, could bridge any knowledge gaps to encourage adoption of more productive yet sustainable agricultural methods. The ANP analysis also highlights that "Farmer Development & Assistance" emerged as the top priority in the "Access to Information & Training" aspect (43.4%),

highlighting the need for comprehensive training programs on sustainable farming practices, financial literacy, and business management.

5. Environmental and Climatic Challenges

Both participants and non-participants alike experience difficulty from unpredictable weather. Participants such as Aseng and Jajang highlighted how heavy rain caused leafy vegetables to rot due to flood and how heavy windstorms can damage existing greenhouses. Adapting farming practices continuously to mitigate risks is paramount, one way of doing this may include the use of greenhouses. However more efforts need to be put in to equip farmers with knowledge and resources needed for dealing with an ever-evolving climate.

B. Opportunities in Promoting Youth Participation

1. Enhanced Training and Education

This program has demonstrated its success at providing participants with training and education programs designed to increase technical expertise, developing their technical knowledge. Expanding these training programs so that more youth, particularly nonparticipants can benefit and bridge any knowledge gaps to further advance farming practices. Initiatives like school farms (collaborated with schools and universities) or online educational content like Desa Tani TV's YouTube channel could prove successful as models; further training can include financial literacy classes for business management purposes or marketing services that equip youth farmers to succeed in agriculture sectors.

2. Access to Resources

The program's provision of financial support and agricultural inputs to participants has proven highly advantageous, expanding this to more youth farmers, even those not currently participating, could significantly help break down economic barriers to farming participation and enable youth farmers to enter agriculture without facing initial financial hurdles. Facilitating affordable loans, microcredit schemes, or agricultural inputs will allow more youth farmers to enter farming successfully and overcome initial hurdles more readily.

3. Market Integration

Ensuring market access for youth farmers is central to maintaining steady incomes. The program should expand efforts that link them with better markets at set prices, linkages created via stronger linkages should become stronger with each

passing month, and support provided to meet market demands can ensure stable prices with fair compensation for produce produced. The ANP analysis identifies "Strengthening Local Institutions" as the second most influential intervention, with the top priority of "Access to Finance" (0.336). Therefore, the program should prioritize efforts to bolster the capacity of local institutions, such as the *Agronative* Cooperative, to facilitate farmers' access to financial resources.

4. Community Engagement and Support

Program participants have reported the sense of community as key in maintaining their engagement; expanding this support beyond program participants through structured community programs or cooperative models can enhance this sense. Involving families and wider communities in such efforts may shift social perceptions of farming while creating an encouraging ecosystem for youth farmers as well as convincing more youth to consider agriculture as viable livelihood. The ANP analysis also reveals that "Strengthening Local Institutions" emerged as the top priority intervention in the "Community Supporting System" aspect (31.4%), emphasizing the need for Dompot Dhuafa to invest in the capacity building of local institution to foster a supportive social environment for the youth.

5. Leveraging Technology

The adoption of smart farming technologies has been particularly appealing to youth farmers. Expanding the use of these technologies can enhance efficiency and productivity. However, some participants reported that the smart farming application did not always yield satisfactory results compared to manual methods. Therefore, the program should provide a robust calculation (pros and cons) on the use of IoT applications in the (smart farming) greenhouse, providing training on the use of it, precision agriculture techniques, and other modern tools can attract more youth to agriculture, improve their farming practices, and make agriculture a more attractive and technologically advanced sector.

6. Addressing Environmental Challenges

Engaging in sustainable farming practices can help mitigate weather variability risks. Agricultural programs should place greater emphasis on eco-friendly methods like greenhouses and organic farming. Moreover, providing education on sustainability topics like crop rotation, integrated pest management and water conservation could increase resilience on farms while contributing towards environmental sustainability.

C. Integration of Quantitative and Qualitative Findings

Integrating quantitative and qualitative findings provides a comprehensive assessment of the challenges and opportunities associated with increasing youth engagement in agriculture. Quantitative findings highlight significant economic and market barriers while qualitative findings provide greater insight into personal experiences, perceptions, and aspirations among youth farmers.

Qualitative data suggest that individual differences in motivation, prior experience, and access to resources play a significant role in shaping youth farmers' experiences. Participants who come from farming families may have different starting points and expectations than newcomers to agriculture; recognizing these individual differences allows program administrators to better tailor interventions to meet the varying needs and aspirations of youth farmers.

Interviews also illustrate the critical role of social networks and peer support in ensuring program success. Participants frequently mentioned learning from and working alongside fellow youth farmers who participated in the program, learning from them to improve their technical skills while providing the emotional support needed to navigate the difficulties and challenges.

While encouraging young people to engage in agriculture is not easy, there is much growth and improvement to be achieved in the Desa Tani program. When it comes to economic aspects, accessing markets and providing comprehensive training sessions that apply advanced technology, and developing a supportive community for young people, more young people will become involved in agriculture as a fulfilling and sustainable livelihood.

4.2.5. Strategic Implications of ANP Analysis for Desa Tani Program Improvement

Through the Analytic Network Process (ANP) analysis, it is possible to determine the relevance of each of the interventions towards the accomplishment of Dompot Dhuafa objectives in relation to the Desa Tani Program aimed at engaging youths in agricultural activities.

Comparing the scores of the ANP analysis, "Strengthening Market Network" holds the highest score at 28.98% with "Income" scoring the highest priority at 0.467, "Strengthening Local Institutions" sits second at 26.62% with "Access to Finance" scoring a priority of 0.336. Although market access is still recognized to be essential in the

enhancement of farmer's income, it cannot be underestimated the forces that act locally as the *Agronative* Cooperative. Such institutions offer key service such as financial support, training, and support for advocacy that is important for the growth and future sustenance for the youth farmers.

This is consistent with the access to capital and income scores gathered in the Mann-Whitney U Test that displayed disparities between program participants and non-participants. From the above findings, Dompét Dhuafa should step up the improvement of the market networks in order to gain more income which will in turn support the capacity of local institution of the *Agronative* Cooperation to assist the farmers in acquiring finances so that the youth is attracted and there is positive youth farmer outcome in the program.

Moreover, to solidify the Dompét Dhuafa's market network, the company should maintain its relationships with buyers, retailers and importers and maybe try to think about the new ways of selling products such as using online platforms that will connect farmers directly with consumers. On the same note, enhancing the capacity of local institutions on governance, financial management and business development will ensure that they enhance their responsiveness to the need to support youth farmers.

However, the analysis using ANP shows that there are other factors within the multiple dimensions of economics that are also essential in determining youth participation with agriculture. For instance, "Provision of Production Assets" became a significant priority in terms of the "Access to Technology" aspect equal to 35.4%, which means that in order to compete in the modern agri-food system, Dompét Dhuafa has to help farmers to acquire modern machinery and equipment or partner with agri-food technology companies. However, it is important to note that some program participants reported mixed results with the smart farming application, indicating that the technology may not always be effective and requires further assessment and improvement.

Moreover, the relatively low rater agreement on the "Income" aspect equal to 36%, means that the majority of the raters might have different perceptions regarding which strategy is the most effective in dealing with income issues. Dompét Dhuafa should have further discussion and consult stakeholders to address such disparities and create specific interventions and solutions that will fit well with the youth farmers.

The ANP approach has emphasized the significance of social factors that have to be combined with economic rewards. "Farmer Development & Assistance" remained the most critical in the "Access to Information & Training" section with 43.4%, mapping an urgent need for qualified training in environmentally sustainable farming, financial

management, and entrepreneurship. Also, the programs that involve successful farmers in training youth farmers can help the former to be coached, while the latter can get support and become members of the agricultural society.

There is also a need for Dompot Dhuafa to appreciate the role of family pressures and other communal supports as influential factors on youth's perception of agriculture. The program should find ways to engage families and communities (other than the program participants) to influence them to support the youth, especially the program participants to engage in farming for livelihood.

The analysis of the ANP indicates that the youth participation in agricultural activities is shaped by economic and social factors. Thus, to have the strongest effect, Dompot Dhuafa should take a multi-faceted approach that will encompass the economic and social aspects of engaging youths in farming. This includes not only building market links and local organizations but also building farmer capacity, giving access to technology along with a robust calculation on the use of it, and having the right social atmosphere.

4.3. Contextualising The Findings

The implications of this research for future studies and development interventions, particularly in the domain of Zakat Empowerment Programs and youth participation in agriculture and other sectors are numerous. This research is thus able to arrive at meaningful conclusions from these findings by situating them in the existing literature and in relation to the Desa Tani Program.

4.3.1. Increasing Agricultural Productivity

This research further demonstrated how this program positively affected youth farmers' levels of productivity. This supported previous literature which asserts that accessing resources, training and technology was instrumental in increasing yield in agriculture (Gella, 2013; Pyburn et al., 2015; Kidido et al., 2017; Rafani et al., 2023; Mulema et al., 2021; Zidana et al., 2020; Geza et al., 2021; FAO, 2021). The Desa Tani program offers financial aid and training on new farming methods such as smart farming to enhance productivity and income variability among youth farmers. Participants in the program reported higher income levels compared with nonparticipants.

The qualitative data strengthens this observation as participants indicated increased interest in farming and the need to venture more into agriculture. Its focus on the likes of smart farming also complements the literature in its call for innovation and technology as means of enhancing production in the sector (Shiferaw et al., 2009). However, some

participants reported that the smart farming application did not always yield satisfactory results compared to manual methods, suggesting that technology adoption should be approached with caution and tailored to the specific needs and skills of the farmers.

Additionally, it is possible to stipulate that the focus of the program on community work, knowledge dissemination, and peer education allows a youth farmer to address potential problems and develop his or her abilities. This corresponds with literature emphasizing on social capital and community, networks in enhancing agricultural innovation and productivity (Verhofstadt & Maertens, 2015; Mulema et al., 2021; Rosada et al., 2023; Girdziute et al., 2022; FAO, 2021). In promoting youth farmer empowerment and coordination, the program provides avenues through which farmers can share ideas, successes and challenges, and share knowledge.

However, the study also highlights barriers to replicating these productivity gains to other unaffected participants such as the *mustahik*. They cannot afford resources, training, and technologies, which have a negative effect on their effectiveness and economic growth as farmers. Efforts to address these disparities entail specific approaches in terms of available resources, training needed, and information to be shared with *mustahik* youth farmers.

4.3.2. Local Economic Development

The effect of the program is not just felt by the farmers, but it also has a ripple effect in the local economy. Youth farmers become productive members of the community not only increasing their individual income but that of other members within the society through provision of other markets. This is in accordance with the principles of Productive Zakat to promote zakat funds in economic production and productivity (Mahmud & Shah, 2009).

The effect of the program to the economic revitalization is manifested in the improvement of the households' income security and access to financial resources of the youth farmers especially those that are *mustahik*. This result coincides with the existing studies (Lucchesi & Proctor, 2012; Pyburn et al., 2015; Aziza, 2022; Mulema et al., 2021; Zidana et al., 2020; Girdziute et al., 2022; Geza et al., 2021) on the effect of agriculture on poverty reduction and rural development. Since it helps the youth farmers attain reasonable income from farming it also stimulates economic development in the targeted areas and helps reduce poverty among the inhabitants of rural areas.

With the creation of the *Agronative* Cooperative and the program aimed at gaining access to markets, the local economy has become more diversified, helping not only the farmers but other parties that are vested in the community as well. Qualitative results indicate that the program has been viewed in a positive light by officials of the local community claiming that the program has been beneficial in rates of unemployment and the local economy.

This local economic development is emphasized by the connection with the agrotourism activities that allow creating other revenue-generating opportunities for the representatives of the community and to establish the clear local economic development. This is not only beneficial to their living standards but also enhances economic turnaround within the region contributing to positive multiplier effects. The ANP analysis serves to complement this argument by stressing the need to consolidate market networks and local institutions for improvements in income and finance as vital for youth participation in agriculture.

But operating cost challenges remain, as evidenced by the comments made by the participants, including Amilah, and the ANP analysis of income challenges illustrated by the differences in opinion. While credited to have effectively pursued enhancement in market linkages to support farmers and equip them with appropriate means and information to manage market risks, these could be stated as remarkable but sensitive to constant scrutiny and need to offer steady economic returns for the farmers.

4.3.3. Welfare of the Farmers Community

The program on the farmers' welfare has significant effect in one way or many dimensions of the picture. The avails of the program include enhancing the participant's stability in income, access to resources, and support from your community to enhance the youths, farmers, and their families' quality of life. This is in concordance with other studies that have defined well-being expansively to encompass social economic, psychological, and even environmental (Ngadi et al., 2022; Aziza, 2022; Rosada et al., 2023; Rafani et al., 2023; Widiyanti et al., 2018; Girdziute et al., 2022; Ritonga et al., 2022).

Its focus on community and knowledge at the grassroots level has helped the program created a form of ownership among the youth farmers. It also leads to the improvement of their lives and those of their families, as well as increasing social capital and the ability of farmers to withstand and recover from adverse effects. The economic and social issues that are targeted by this program are also in congruence with the sustainable

development goals that embraces the integration of economic, social, and environmental factors (Hapsoro & Bangun, 2020). However, there is qualitative data that denotes social networks and peer support in the achievement of the program. As evident from the interviews, participants appreciate the idea of copying with other youth farmers in the same program. This aspect not only develops their skills in executing technicalities but also offers moral support and encouragement when it comes to dealing with issues involved in farming.

The component of education and training in the program has also benefitted the farming populace in terms of general well-being. In this regard, the program has availed key skills and knowledge to the youth farmers, thus enabling them to arrive at sound decisions, embrace modern practices in farming, and enhance their wellbeing. This emphasis on educational causes fits with the tenets of Islamic philanthropy where learning and self-betterment are valued (Sany, 2019). The success of the program in achieving this in the qualitative data may be supported by participant, indicating their willingness to learn more about agriculture. Integrative economic and social support of the program corresponds to the general concept of community empowerment, described in the existing literature (Ritonga et al., 2022), indicates the need for complex interventions with reference to complex nature of development.

Nonetheless, challenges that non-participants experience, especially the beneficiaries of Zakat (*mustahik*), imply necessity for further attempts to extend the positive outcomes of the program to the weak members of the farming population. Reducing the gaps in the quality of life between the two groups requires trying to bridge the economic and social divides between the two. The above ANP analysis reveals that to overcome these challenges and enhance the overall welfare of the farming community, steps to bolster local institutions and comprehensive training programs may offer considerable utility.

Besides the economic and social effects, it is equally important to note that the programs fall under the framework of Productive Zakat. Applying zakat to contribute to the improvement of the youth farmers and development of sustainable agriculture practices aligns and supports the long-term objectives of zakat and Islamic social finance. It also has the advantage of yielding positive returns both to the recipient and to the spiral of economic activities and social progress. In this case, the program's success can serve as a model for other zakat-based initiatives aimed at promoting sustainable livelihoods and community empowerment.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1. Research Overview

This research examines the effect of Zakat Empowerment Program known as ‘Desa Tani Program’ initiated by Dompot Dhuafa on youth participation in the agricultural sector in Indonesia. The research work adopted both qualitative and quantitative research methods as a way of providing a broad and rigorous assessment of the effects of the program. The research focused on a Desa Tani program location in Lembang, West Java, and involved two main participant groups: 34 participants out of the youth farmers involved in the program and 10 from the youths who did not participate in the program but from the neighborhoods. Qualitative interviews were also conducted with the youth farmers in the scheme (8 people), 5 individuals who did not participate and with the stakeholders such as the program administrator, employees of the *Agronative* Cooperative and a local figure.

More specifically, the Mann-Whitney U Test revealed that program participants intended to become more actively engaged in agriculture while possessing greater access to resources like land, finance and technology compared with nonparticipants and earning higher earnings overall than nonparticipants compared with them. These hypotheses support that program's efficacy at increasing economic status and work initiative among youth farmers.

Through interviews and thematic analysis, this research endeavoured to gain a comprehensive understanding of youth farmers' individual experiences, perceptions and future plans. Interview conducted revealed that the program stimulates motivation for participation in agriculture, access to resources and training and has a general positive effect on wellbeing. Other factors attributed to the success in the program included focus on community, knowledge sharing and adopting newest methods including smart farming.

In addition, the Analytic Network Process (ANP) evaluation discovered the relative importance of various program options in engaging youths as farmers. The ANP analysis concluded that the most highly prioritized interventions include both the “Strengthening Market Network” and the “Strengthening Local Institutions”, which stressed on demand-side strategies focusing on the economic and social approaches.

The research uncovers the effects of Zakat Empowerment Programs, on encouraging youth to engage in agriculture and socio-economic progress. These programs boost efficiency drive progress and enhance quality of life fostering effective Zakat

distribution and long-term development. Yet uncertainties persist regarding the effects, on those not directly benefiting and the role of market conditions.

This research proves useful in understanding the effectiveness of the Desa Tani Program and ways to enhance it. The findings can help the policymakers, the zakat management organizations and other stakeholders to design their strategies to engage the youth towards engaging in agriculture so as to support sustainable rural development across Indonesia.

5.2. Research Outcomes

The research reveals that the Zakat Empowerment Program by Dompot Dhuafa has a positive effect of youth farmers on the agricultural sector. Although the program is not solely responsible for their decision to participate, it significantly enhances their willingness and commitment to participate in agriculture sector. The program's multifaceted approach, encompassing financial support, training, mentorship, and community building, has been instrumental in creating a more conducive environment for youth to consider agriculture as a viable livelihood option. The positive effect of the program is observed in terms of income generation, acquisition of inputs and assets, and perception of farming as a desirable, fulfilling and valued livelihood among the target beneficiaries.

The research also gives insight about the prospects and difficulties of the Zakat Empowerment Program. Hence, the program has had success in achieving some of its goals; however, the program has issues of resource limitations, fluctuating markets, need to constantly improve and innovate, and proper integration of the technology. Some of the participants said that the smart farming application was not efficient in some circumstances evidencing the fact that the technology is useful but need to undergo further enhancement. However, the ideas of developing the program as a way of training potential employees, as well as a financial underpinning and a marketing platform, provide usable information about possible solutions. Successful completion of these challenges as well as building up from the existing strengths will help in betterment of the program as far as drawing the young talent towards the agriculture sector is concerned.

Furthermore, the Analytic Network Process (ANP) analysis identified the most critical interventions of the Desa Tani Program in attracting youth farmers. Strengthening market networks were identified as the most significant improved area intervention, with local institutions in the second place. These results seem to support a complex view that

encompasses economic and social dimensions that may enhance the participation of youths in farming. Therefore, by focusing on market networks, financial support, community building, and skill development, the program has an opportunity to prepare the youth for a better agriculture sector. But the rater agreement in the ANP was relatively low on some criteria such as income generation suggesting the need for further discussion and consultation with stakeholders to refine program strategies and ensure their alignment with the diverse needs and aspirations of youth farmers.

5.3. Long-Term Implications and Sustainability of the Desa Tani Program

The research findings indicate that the Desa Tani Program by Dompét Dhuafa has been successful in the short term in empowering youth farmers and promoting sustainable agricultural practices. The program's interventions, such as providing access to resources, training, mentoring, market linkages, and strengthening the local institution, have resulted in increased income, improved livelihoods, and a more positive perception of agriculture among youth people.

In the long term, the program's effect could extend beyond individual farmers and contribute to broader socio-economic development. The increased productivity and income of youth farmers could stimulate local economies, create employment opportunities, and improve food production in the region. The program's emphasis on sustainable practices could also contribute to environmental conservation and climate change mitigation.

However, to achieve these long-term goals, the program needs to address several challenges, such as the limited availability of land, the need for continuous innovation and adaptation to changing market conditions, and the importance of ensuring the program's financial sustainability.

5.3. Research Implication and Proposed Recommendations

The results of this research hold important implications for Dompét Dhuafa and other OPZs interested in increasing youth participation in agriculture. The findings derived from the quantitative and qualitative data and the ANP analysis are directions for designing purposeful interventions and strategies for tackling the problems and leveraging opportunities of this critical area.

In particular, the integrated analysis of the quantitative and qualitative results highlights the necessity of the complex intervention that focuses on the economic and social factors that limit youth participation in agriculture. Sharing of resources, knowledge and

markets, and changing perception and attracting support from the community is another achievement by the program that may inspire similar programs with intention of supporting youth farmers and rejuvenating the agricultural sector.

5.3.1. Recommendations for Dompét Dhuafa

Based on the research findings, the following recommendations are proposed for Dompét Dhuafa to enhance the effectiveness of the Desa Tani Program:

a. **Strengthen Market Linkages and Cooperative Management**

According to the ANP analysis, the most critical interventions is “Strengthening Market Network” from the income generation perspective. Dompét Dhuafa should ensure that it captures principal relationships with buyers, retailers, and importers so that it can guarantee market access and reasonable prices for products from the farmers. Furthermore, strengthening the capacity of the *Agronative* Cooperative in financial management and market negotiation expertise can improve its efficiency in empowering farmers and maintaining sustainable income.

b. **Explore Collaboration with the Government and PTPN**

The research establishes that constrained availability of resources, most especially land and capital are constraints to *mustahik* youth farmers. To address the issue of limited land availability and ensure the long-term sustainability of the program, Dompét Dhuafa should explore the possibility of collaborating with the PTPN. This could involve negotiating a partnership where Dompét Dhuafa gains access to additional land resources in exchange for providing training and support to youth farmers. Such a collaboration could be mutually beneficial for all parties involved and could significantly enhance the effect of the Desa Tani program.

c. **Address Social and Cultural Barriers**

The reluctance of youth and their families to get involved in farming is thus still a concern. Dompét Dhuafa should invest in awareness campaigns, educational initiatives, and the sharing of success stories to change perceptions about modern agriculture and highlight its potential as a viable and fulfilling livelihood path. Engaging with families and communities is crucial to garner support for youth farmers and create a more positive social environment for agricultural activities.

d. Leverage Technology and Innovation

The research findings reveal that while youth farmers are generally receptive to smart farming technologies, there have been mixed results with the current application. Therefore, Dompot Dhuafa should prioritize a comprehensive assessment of the existing technology's effectiveness (especially the suitability in targeted location) and user-friendliness. Gathering feedback from participants will help identify areas for improvement and ensure that the technology aligns with their needs and skill levels. It is important to offer comprehensive training and ongoing support to farmers, encompassing both theoretical knowledge and practical hands-on experience, to maximize the benefits of the technology.

Furthermore, fostering an approach which integrates technology and traditional farming knowledge can ease transition and help farmers leverage existing expertise. Recognizing that different farmers and crops may require tailored technology solutions tailored specifically to them by Dompot Dhuafa will ensure these are suitable, affordable, user-friendly technologies.

e. Monitor and Evaluate Program Effect

To ensure the program continues to run and achieve optimal effects, Dompot Dhuafa must develop a strong monitoring and evaluation system. This requires monitoring and collecting information on certain variables such as income levels, productivity levels, and youth participation rates in program activities (participation rates) to evaluate the program's effects and pinpoint shortcomings. Feedback from participants and stakeholders is also useful in gathering information on areas that need to be adjusted in the program.

5.3.2. Recommendations for Other Zakat Management Organizations

The findings of this study also offer valuable lessons for other zakat management organizations (OPZs) seeking to promote youth participation in agriculture:

a. Adopt a Holistic Approach

Rooted in this causes assessment, it can be concluded that the Desa Tani Program has been efficient due to its ability to address both the economic and social factors at youth participation. Other OPZs should emulate this model of financial support accompanied by training and mentorship, as well as community sensitisation in supporting youth farmers. Additionally, it is important to consider psychological barriers, such as fear of failure or lack of confidence, that might

prevent youth from participating in agriculture and develop strategies to address these barriers.

b. Prioritize Market Access and Value Chain Development

The study points out that lack of market access poses a very big challenge to youth farmers when undertaking the farming activities. OPZs should undertake the activities that will help in enhancing linkages with markets, create market access, and guarantee market price for the farmers' produce. It could therefore entail practice such as formation of cooperative and formulation of marketing plans.

c. Invest in Education and Skill Development

Efficient and effective knowledge delivery to the youth farmers is mandatory to enable them to offer their best in the agricultural business. OPZs should encourage institutions to provide good quality training to farmers and these should include training in production aspects such as farming, marketing, and financial literacy and management skills. This also means that integrating with education institutions and agricultural specialists can help increase the quality and applicability of the programs. Also, promoting agricultural education and training programs at the school and university levels can help create a pipeline of skilled youth farmers.

d. Foster Community Engagement and Support

The fellowship and family concept of mutual cooperation enjoyed by the participants became the main strength in the establishment of the Desa Tani Program. Other OPZs can focus on the areas of community mobilization that can include farmer's networks, youth farmers' guidance, and other social functions, with an aim of ensuring that youth farmers stay in business.

e. Leverage Technology and Innovation

This study highlights how technology can entice and empower youth in agriculture. It is important for OPZs to approach technology adoption strategically. Before implementing any technology-based solutions, they should conduct thorough research to identify technologies that are appropriate for the local context, affordable, and user-friendly. Investing in training and capacity-building programs to equip farmers with necessary knowledge of using it effectively remains crucial to its effectiveness.

Additionally, fostering collaboration and knowledge sharing among farmers and technology providers can facilitate the adoption and adaptation of new

technologies. OPZs could also explore the potential of using technology for knowledge sharing and networking among youth farmers, such as through online forums or mobile applications. Continuous monitoring and evaluation of technology interventions are important to assess their effectiveness and identify areas for improvement.

5.4. Contribution of the Research

This research has several important implications for advancing youth participation in agriculture and the larger spectrum of Zakat Empowerment Programs. The study shows the conditions under which young people should be empowered for agriculture; this should involve economic and social aspects. Moreover, the ANP analysis determines the most critical program interventions, offering strategic suggestions to Dompot Dhuafa and other zakat management organizations regarding the enhancement of specific program components that would benefit youth farmers.

Furthermore, the study contributes to the theoretical understanding of youth empowerment in agriculture through the concepts of youth participation, sustainable agriculture, and productive zakat. The findings enrich the existing literature and offer valuable insights for future research and practice.

5.5. Limitations of the Study and Suggestions for Future Research

This study offers important knowledge on the effect of the Desa Tani Program in the participant of youth farmers. Nevertheless, it is necessary to reveal the study limitations to present a concise analysis of the results, and define further research suggestions:

- The study was conducted in only one program location which was in Lembang, West Java. Nevertheless, the findings provide a useful understanding of program's effect in particular setting, and the conclusions may not be applicable to other areas across Indonesia or other settings. Further research should contemplate extending the study to the multiple program locations and different socio-economic environments to increase generalisability of the results.
- The overall study population however was small and so was the sample size of the quantitative and qualitative parts of the study. The selection of the sample to include both the program participants and non-participants may act as a strength or a weakness depending on the findings of the study. The sample size for the study is relatively small (even though it has covered 100% of the existing population) and this action may reduce the statistical power of the quantitative part of the study

and depth of the qualitative part of the study. Therefore, future studies should involve a large sample size to increase the credibility and applicability of the results.

- The study analyzed the Desa Tani Program by Dompot Dhuafa and as such, it excluded information about similar programs of other organizations. Although this let its researcher to do a deeper focus on this certain program, it does not reveal the variation of Zakat Empowerment Programs across Indonesia.
- The study did not compare this with other youth empowerment programs in agriculture whether as zakat organizations or those of other humanitarian organizations. It could also indicate the potential of the Desa Tani Program and its weaknesses which could be useful in other initiatives' design.

Thus, overcoming these limitations, further research based on the results received can be helpful for studying the position of Zakat Empowerment Programs of youth participation in agriculture more comprehensively and deeply.

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APPENDIX

Appendix 1. 1 Frequencies of Farmers who Participate in Desa Tani Program

		Age Generation			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Gen-Z	10	29.4	29.4	29.4
	Millenials	18	52.9	52.9	82.4
	Millenials Advanced	6	17.7	17.7	100.0
	Total	34	100.0	100.0	

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	31	91.2	91.2	91.2
	Female	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

		Educational Level			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Elementary School	12	35.3	35.3	35.3
	Junior High School	2	5.9	5.9	41.2
	Senior High School	15	44.1	44.1	85.3
	Bachelor Degree	5	14.7	14.7	100.0
	Total	34	100.0	100.0	

Family Background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farmer	21	61.8	61.8	61.8
	Not Famer	13	38.2	38.2	100.0
	Total	34	100.0	100.0	

Land Ownership Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Land from the Program	23	67.7	67.7	67.7
	Land from the Program & Owned Land	5	14.7	14.7	82.4
	Land from the Program & Rented Land	6	17.6	17.6	100.0
	Total	34	100.0	100.0	

Year Entry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2018	9	26.5	26.5	26.5
	2020	2	5.9	5.9	32.4
	2021	6	17.6	17.6	50.0
	2022	9	26.5	26.5	76.5
	2023	5	14.7	14.7	91.2
	2024	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

Income Before Program

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than IDR 2,000,000	20	58.9	58.9	58.9
	IDR 2.1 - 3 million	12	35.3	35.3	94.2
	IDR 3.1 - 4 million	1	2.9	2.9	97.3
	IDR 4.1 - 5 million	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

Income After Program

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than IDR 2,000,000	1	2.9	2.9	2.9
	IDR 2.1 - 3 million	12	35.3	35.3	38.2
	IDR 3.1 - 4 million	11	32.4	32.4	70.6
	IDR 4.1 - 5 million	8	23.5	23.5	94.1
	More than IDR 5.1 million	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

Expenditure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than IDR 2,000,000	14	41.2	41.2	41.2
	IDR 2.1 - 3 million	12	35.3	35.3	76.5
	IDR 3.1 - 4 million	6	17.6	17.6	94.1
	IDR 4.1 - 5 million	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

Appendix 1. 2 Frequencies of Farmers who Do Not Participate in Program

Age Generation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Gen-Z	6	60.0	60.0	60.0
	Millenials	4	40.0	40.0	100.0
	Total	10	100.0	100.0	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	10	100.0	100.0	100.0

Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Elementary School	6	60.0	60.0	60.0
	Junior High School	4	40.0	40.0	100.0
	Total	10	100.0	100.0	

Family Background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farmer	10	100.0	100.0	100.0

Land Ownership Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owned Land	3	30.0	30.0	30.0
	Rented Land	5	50.0	50.0	80.0
	Owned & Rented Land	2	20.0	20.0	100.0
	Total	10	100.0	100.0	

Year Entry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Participate in Program	10	100.0	100.0	100.0

Income Before the Year of Program (2016)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than IDR 2,000,000	6	60.0	60.0	60.0
	IDR 2.1 - 3 million	2	20.0	20.0	80.0
	IDR 4.1 - 5 million	1	10.0	10.0	90.0
	More than IDR 5.1 million	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Income After the Year of Program (2024)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Less than IDR 2,000,000	5	50.0	50.0	50.0
	IDR 2.1 - 3 million	3	30.0	30.0	80.0
	IDR 4.1 - 5 million	1	10.0	10.0	90.0
	More than IDR 5.1 million	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Expenditure

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Less than IDR 2,000,000	4	40.0	40.0	40.0
	IDR 2.1 - 3 million	5	50.0	50.0	90.0
	IDR 3.1 - 4 million	1	10.0	10.0	100.0
	Total	10	100.0	100.0	

Appendix 1. 3 Validity Test for Economic Factors

		Correlations										
		X1.1	X1.2	X1.3	X1.4	X1.5	X1.6	X1.7	X1.8	X1.9	X1.10	Total_X1
X1.1	Pearson Correlation	1	-.065	.268	.081	.274	.248	.339*	.038	.262	-.035	.405**
	Sig. (2-tailed)		.675	.079	.603	.072	.104	.024	.806	.086	.822	.006
	N	44	44	44	44	44	44	44	44	44	44	44
X1.2	Pearson Correlation	-.065	1	.055	.299*	.162	.104	.248	.034	.252	.344*	.364*
	Sig. (2-tailed)	.675		.725	.049	.292	.502	.105	.828	.099	.022	.015
	N	44	44	44	44	44	44	44	44	44	44	44
X1.3	Pearson Correlation	.268	.055	1	.447**	.390**	.555**	.624**	.482**	.515**	.158	.703**
	Sig. (2-tailed)	.079	.725		.002	.009	.000	.000	.001	.000	.305	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.4	Pearson Correlation	.081	.299*	.447**	1	.128	.178	.397**	.324*	.542**	.596**	.591**
	Sig. (2-tailed)	.603	.049	.002		.407	.249	.008	.032	.000	.000	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.5	Pearson Correlation	.274	.162	.390**	.128	1	.792**	.492**	.441**	.377*	.079	.746**
	Sig. (2-tailed)	.072	.292	.009	.407		.000	.001	.003	.012	.612	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.6	Pearson Correlation	.248	.104	.555**	.178	.792**	1	.612**	.600**	.485**	.087	.793**
	Sig. (2-tailed)	.104	.502	.000	.249	.000		.000	.000	.001	.576	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.7	Pearson Correlation	.339*	.248	.624**	.397**	.492**	.612**	1	.511**	.542**	.202	.780**
	Sig. (2-tailed)	.024	.105	.000	.008	.001	.000		.000	.000	.188	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.8	Pearson Correlation	.038	.034	.482**	.324*	.441**	.600**	.511**	1	.509**	.149	.622**
	Sig. (2-tailed)	.806	.828	.001	.032	.003	.000	.000		.000	.333	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.9	Pearson Correlation	.262	.252	.515**	.542**	.377*	.485**	.542**	.509**	1	.275	.734**
	Sig. (2-tailed)	.086	.099	.000	.000	.012	.001	.000	.000		.071	.000
	N	44	44	44	44	44	44	44	44	44	44	44
X1.10	Pearson Correlation	-.035	.344*	.158	.596**	.079	.087	.202	.149	.275	1	.395**
	Sig. (2-tailed)	.822	.022	.305	.000	.612	.576	.188	.333	.071		.008
	N	44	44	44	44	44	44	44	44	44	44	44
Total_X1	Pearson Correlation	.405**	.364*	.703**	.591**	.746**	.793**	.780**	.622**	.734**	.395**	1
	Sig. (2-tailed)	.006	.015	.000	.000	.000	.000	.000	.000	.000	.008	
	N	44	44	44	44	44	44	44	44	44	44	44

*. Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Appendix 1. 4 Validity Test for Social Factors

		Correlations							
		X2.1	X2.2	X2.3	X2.4	X2.5	X2.6	X2.7	Total_X2
X2.1	Pearson Correlation	1	.140	.003	.426**	.248	-.137	.094	.478**
	Sig. (2-tailed)		.364	.985	.004	.105	.376	.544	.001
	N	44	44	44	44	44	44	44	44
X2.2	Pearson Correlation	.140	1	.508**	.231	-.007	.479**	.158	.698**
	Sig. (2-tailed)	.364		.000	.131	.964	.001	.305	.000
	N	44	44	44	44	44	44	44	44
X2.3	Pearson Correlation	.003	.508**	1	.077	.038	.146	.098	.552**
	Sig. (2-tailed)	.985	.000		.620	.805	.343	.527	.000
	N	44	44	44	44	44	44	44	44
X2.4	Pearson Correlation	.426**	.231	.077	1	.487**	.186	.102	.688**
	Sig. (2-tailed)	.004	.131	.620		.001	.228	.511	.000
	N	44	44	44	44	44	44	44	44
X2.5	Pearson Correlation	.248	-.007	.038	.487**	1	.036	-.019	.483**
	Sig. (2-tailed)	.105	.964	.805	.001		.815	.904	.001
	N	44	44	44	44	44	44	44	44
X2.6	Pearson Correlation	-.137	.479**	.146	.186	.036	1	.082	.458**
	Sig. (2-tailed)	.376	.001	.343	.228	.815		.597	.002
	N	44	44	44	44	44	44	44	44
X2.7	Pearson Correlation	.094	.158	.098	.102	-.019	.082	1	.333*
	Sig. (2-tailed)	.544	.305	.527	.511	.904	.597		.027
	N	44	44	44	44	44	44	44	44
Total_X2	Pearson Correlation	.478**	.698**	.552**	.688**	.483**	.458**	.333*	1
	Sig. (2-tailed)	.001	.000	.000	.000	.001	.002	.027	
	N	44	44	44	44	44	44	44	44

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Appendix 1. 5 Validity Test for Youth Farmers' Participation

		Correlations			
		Y1.1	Y1.2	Y1.3	Total_Y
Y1.1	Pearson Correlation	1	.329*	.193	.673**
	Sig. (2-tailed)		.029	.210	.000
	N	44	44	44	44
Y1.2	Pearson Correlation	.329*	1	.501**	.822**
	Sig. (2-tailed)	.029		.001	.000
	N	44	44	44	44
Y1.3	Pearson Correlation	.193	.501**	1	.751**
	Sig. (2-tailed)	.210	.001		.000
	N	44	44	44	44
Total_Y	Pearson Correlation	.673**	.822**	.751**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	44	44	44	44

* . Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Appendix 1. 6 Validity Test for Economic & Social Factors who Participate in Program

		Correlations									
		X1.1.3	X1.2.3	X1.3.3	X1.4.3	X1.5.3	X2.1.3	X2.2.3	X2.3.3	X2.4.3	Total_X1X2
X1.1.3	Pearson Correlation	1	.339	.526**	.304	.050	.135	.231	.075	.178	.543**
	Sig. (2-tailed)		.050	.001	.081	.778	.448	.189	.673	.313	.001
	N	34	34	34	34	34	34	34	34	34	34
X1.2.3	Pearson Correlation	.339	1	.226	.284	.354*	.312	.363*	.074	.466**	.690**
	Sig. (2-tailed)	.050		.199	.104	.040	.072	.035	.679	.005	.000
	N	34	34	34	34	34	34	34	34	34	34
X1.3.3	Pearson Correlation	.526**	.226	1	.684**	.129	.063	.209	-.167	.232	.512**
	Sig. (2-tailed)	.001	.199		.000	.469	.723	.236	.345	.188	.002
	N	34	34	34	34	34	34	34	34	34	34
X1.4.3	Pearson Correlation	.304	.284	.684**	1	.317	.169	.262	.100	.286	.625**
	Sig. (2-tailed)	.081	.104	.000		.068	.338	.134	.574	.100	.000
	N	34	34	34	34	34	34	34	34	34	34
X1.5.3	Pearson Correlation	.050	.354*	.129	.317	1	.020	-.136	-.071	.372*	.386*
	Sig. (2-tailed)	.778	.040	.469	.068		.910	.442	.690	.030	.024
	N	34	34	34	34	34	34	34	34	34	34
X2.1.3	Pearson Correlation	.135	.312	.063	.169	.020	1	.560**	.350*	.026	.618**
	Sig. (2-tailed)	.448	.072	.723	.338	.910		.001	.042	.882	.000
	N	34	34	34	34	34	34	34	34	34	34
X2.2.3	Pearson Correlation	.231	.363*	.209	.262	-.136	.560**	1	.272	.125	.622**
	Sig. (2-tailed)	.189	.035	.236	.134	.442	.001		.120	.480	.000
	N	34	34	34	34	34	34	34	34	34	34
X2.3.3	Pearson Correlation	.075	.074	-.167	.100	-.071	.350*	.272	1	.000	.388*
	Sig. (2-tailed)	.673	.679	.345	.574	.690	.042	.120		1.000	.023
	N	34	34	34	34	34	34	34	34	34	34
X2.4.3	Pearson Correlation	.178	.466**	.232	.286	.372*	.026	.125	.000	1	.521**
	Sig. (2-tailed)	.313	.005	.188	.100	.030	.882	.480	1.000		.002
	N	34	34	34	34	34	34	34	34	34	34
Total_X1X2	Pearson Correlation	.543**	.690**	.512**	.625**	.386*	.618**	.622**	.388*	.521**	1
	Sig. (2-tailed)	.001	.000	.002	.000	.024	.000	.000	.023	.002	
	N	34	34	34	34	34	34	34	34	34	34

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Appendix 1. 7 Validity Test for Zakat Empowerment Program Variable

		Correlations											
		X3.1.1	X3.1.2	X3.1.3	X3.2.1	X3.2.2	X3.2.3	X3.3.1	X3.3.2	X3.3.3	X3.4.1	X3.4.2	Total_X3
X3.1.1	Pearson Correlation	1	.368*	.404*	.557**	.398*	.217	.183	.378*	.373*	.351*	.299	.624**
	Sig. (2-tailed)		.032	.018	.001	.020	.217	.300	.028	.030	.042	.086	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.1.2	Pearson Correlation	.368*	1	.485**	.515**	.204	.216	-.038	.351*	.138	.189	.297	.517**
	Sig. (2-tailed)	.032		.004	.002	.247	.220	.831	.042	.437	.284	.088	.002
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.1.3	Pearson Correlation	.404*	.485**	1	.422*	.174	.390*	.259	.497**	.379*	.376*	.441**	.674**
	Sig. (2-tailed)	.018	.004		.013	.325	.023	.139	.003	.027	.029	.009	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.2.1	Pearson Correlation	.557**	.515**	.422*	1	.493**	.349*	.202	.592**	.341*	.388*	.301	.726**
	Sig. (2-tailed)	.001	.002	.013		.003	.043	.251	.000	.048	.023	.084	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.2.2	Pearson Correlation	.398*	.204	.174	.493**	1	.307	.290	.418*	.194	.262	.226	.550**
	Sig. (2-tailed)	.020	.247	.325	.003		.077	.096	.014	.271	.134	.199	.001
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.2.3	Pearson Correlation	.217	.216	.390*	.349*	.307	1	.575**	.552**	.305	.439**	.401*	.676**
	Sig. (2-tailed)	.217	.220	.023	.043	.077		.000	.001	.079	.009	.019	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.3.1	Pearson Correlation	.183	-.038	.259	.202	.290	.575**	1	.500**	.498**	.411*	.554**	.609**
	Sig. (2-tailed)	.300	.831	.139	.251	.096	.000		.003	.003	.016	.001	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.3.2	Pearson Correlation	.378*	.351*	.497**	.592**	.418*	.552**	.500**	1	.399*	.463**	.295	.767**
	Sig. (2-tailed)	.028	.042	.003	.000	.014	.001	.003		.019	.006	.090	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.3.3	Pearson Correlation	.373*	.138	.379*	.341*	.194	.305	.498**	.399*	1	.520**	.509**	.653**
	Sig. (2-tailed)	.030	.437	.027	.048	.271	.079	.003	.019		.002	.002	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.4.1	Pearson Correlation	.351*	.189	.376*	.388*	.262	.439**	.411*	.463**	.520**	1	.447**	.696**
	Sig. (2-tailed)	.042	.284	.029	.023	.134	.009	.016	.006	.002		.008	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
X3.4.2	Pearson Correlation	.299	.297	.441**	.301	.226	.401*	.554**	.295	.509**	.447**	1	.652**
	Sig. (2-tailed)	.086	.088	.009	.084	.199	.019	.001	.090	.002	.008		.000
	N	34	34	34	34	34	34	34	34	34	34	34	34
Total_X3	Pearson Correlation	.624**	.517**	.674**	.726**	.550**	.676**	.609**	.767**	.653**	.696**	.652**	1
	Sig. (2-tailed)	.000	.002	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000
	N	34	34	34	34	34	34	34	34	34	34	34	34

*. Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Appendix 1. 8 Reliability for All Variables

Case Processing Summary

		N	%
Cases	Valid	34	77.3
	Excluded ^a	10	22.7
	Total	44	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	
Alpha	N of Items
.918	40

Appendix 1. 9 Reliability for Economic Factor Variable

Case Processing Summary

		N	%
Cases	Valid	44	100.0
	Excluded ^a	0	.0
	Total	44	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.750	11

Appendix 1. 10 Reliability for Social Factor Variable

Case Processing Summary

		N	%
Cases	Valid	44	100.0
	Excluded ^a	0	.0
	Total	44	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.715	8

Appendix 1. 11 Reliability for Youth Farmers' Participation Variable

Case Processing Summary

		N	%
Cases	Valid	44	100.0
	Excluded ^a	0	.0
	Total	44	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	
Alpha	N of Items
.802	4

Appendix 1. 12 Reliability for Economic & Social Factors who Participate

Case Processing Summary

		N	%
Cases	Valid	34	77.3
	Excluded ^a	10	22.7
	Total	44	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	
Alpha	N of Items
.688	9

Appendix 1. 13 Reliability for Zakat Empowerment Program Variable

Case Processing Summary

		N	%
Cases	Valid	34	77.3
	Excluded ^a	10	22.7
	Total	44	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.862	11

Appendix 1. 14 Mann-Whitney Test of Youth Farmers' Participation Variable

Ranks

Group	N	Mean Rank	Sum of Ranks
Total_Y Participate in Program	34	23.28	791.50
Total_Y Do Not Participate in Program	7	9.93	69.50
Total	41		

Test Statistics^a

	Total_Y
Mann-Whitney U	41.500
Wilcoxon W	69.500
Z	-2.743
Asymp. Sig. (2-tailed)	.006
Exact Sig. [2*(1-tailed Sig.)]	.005 ^b

a. Grouping Variable: Group

b. Not corrected for ties.

Appendix 1. 15 Mann-Whitney Test of Economic Factor Variable

		Ranks		
	Group	N	Mean Rank	Sum of Ranks
Total_X1.1	Participate in Program	34	23.40	795.50
	Do Not Participate in Program	7	9.36	65.50
	Total	41		
Total_X1.2	Participate in Program	34	22.94	780.00
	Do Not Participate in Program	7	11.57	81.00
	Total	41		
Total_X1.3	Participate in Program	34	24.50	833.00
	Do Not Participate in Program	7	4.00	28.00
	Total	41		
Total_X1.4	Participate in Program	34	23.93	813.50
	Do Not Participate in Program	7	6.79	47.50
	Total	41		
Total_X1.5	Participate in Program	34	22.26	757.00
	Do Not Participate in Program	7	14.86	104.00
	Total	41		
Total_X1	Participate in Program	34	24.35	828.00
	Do Not Participate in Program	7	4.71	33.00
	Total	41		

Test Statistics^a						
	Total_X 1.1	Total_X 1.2	Total_X 1.3	Total_X 1.4	Total_X 1.5	Total_ X1
Mann-Whitney U	37.500	53.000	.000	19.500	76.000	5.000
Wilcoxon W	65.500	81.000	28.000	47.500	104.000	33.000
Z	-2.961	-2.388	-4.253	-3.701	-1.549	-3.969
Asymp. Sig. (2-tailed)	.003	.017	.000	.000	.121	.000
Exact Sig. [2*(1-tailed Sig.)]	.003 ^b	.021 ^b	.000 ^b	.000 ^b	.144 ^b	.000 ^b

a. Grouping Variable: Group

b. Not corrected for ties.

Appendix 1. 16 Mann-Whitney Test of Social Factor Variable

		Ranks		
	Group	N	Mean Rank	Sum of Ranks
Total_X2.1	Participate in Program	34	23.38	795.00
	Do Not Participate in Program	7	9.43	66.00
	Total	41		
Total_X2.2	Participate in Program	34	20.38	693.00
	Do Not Participate in Program	7	24.00	168.00
	Total	41		
Total_X2.3	Participate in Program	34	23.74	807.00
	Do Not Participate in Program	7	7.71	54.00
	Total	41		
Total_X2.4	Participate in Program	34	20.56	699.00
	Do Not Participate in Program	7	23.14	162.00
	Total	41		
Total_X2	Participate in Program	34	23.07	784.50
	Do Not Participate in Program	7	10.93	76.50
	Total	41		

Test Statistics^a					
	Total_X2. 1	Total_X2. 2	Total_X2. 3	Total_X2. 4	Total_X 2
Mann-Whitney U	38.000	98.000	26.000	104.000	48.500
Wilcoxon W	66.000	693.000	54.000	699.000	76.500
Z	-3.036	-.759	-3.363	-.576	-2.465
Asymp. Sig. (2-tailed)	.002	.448	.001	.565	.014
Exact Sig. [2*(1-tailed Sig.)]	.004 ^b	.486 ^b	.001 ^b	.623 ^b	.012 ^b

a. Grouping Variable: Group

b. Not corrected for ties.

Appendix 1. 17 Mann-Whitney Test All Variables

		Ranks		
	Group	N	Mean Rank	Sum of Ranks
Total_Y	Participate in Program	34	23.28	791.50
	Do Not Participate in Program	7	9.93	69.50
	Total	41		
Total_X1	Participate in Program	34	24.35	828.00
	Do Not Participate in Program	7	4.71	33.00
	Total	41		
Total_X2	Participate in Program	34	23.07	784.50
	Do Not Participate in Program	7	10.93	76.50
	Total	41		

Test Statistics^a			
	Total_Y	Total_X1	Total_X2
Mann-Whitney U	41.500	5.000	48.500
Wilcoxon W	69.500	33.000	76.500
Z	-2.743	-3.969	-2.465
Asymp. Sig. (2-tailed)	.006	.000	.014
Exact Sig. [2*(1-tailed Sig.)]	.005 ^b	.000 ^b	.012 ^b

a. Grouping Variable: Group

b. Not corrected for ties.

Appendix 2. 1 Limiting Result from Super Decision

	UNAIR	Kementan	DD Pusat	DD Jabar	Desa Tani	ALL
1.1. Provision of Production Assets	0.0470	0.0585	0.0249	0.0301	0.0065	0.0226
1.2. Farmer Development and Assistance	0.0252	0.0144	0.0249	0.0116	0.0234	0.0230
1.3. Strengthening Market Networks	0.0137	0.0144	0.0459	0.0182	0.0234	0.0242
1.4. Strengthening Local Institutions	0.0252	0.0237	0.0153	0.0513	0.0578	0.0412
2.1. Provision of Production Assets	0.0122	0.0210	0.0565	0.0116	0.0118	0.0187
2.2. Farmer Development and Assistance	0.0210	0.0210	0.0132	0.0301	0.0118	0.0187
2.3. Strengthening Market Networks	0.0390	0.0562	0.0207	0.0182	0.0267	0.0363
2.4. Strengthening Local Institutions	0.0390	0.0129	0.0207	0.0513	0.0608	0.0374
3.1. Provision of Production Assets	0.0505	0.0562	0.0191	0.0301	0.0571	0.0393
3.2. Farmer Development and Assistance	0.0291	0.0210	0.0365	0.0513	0.0220	0.0343
3.3. Strengthening Market Networks	0.0157	0.0210	0.0191	0.0116	0.0100	0.0164
3.4. Strengthening Local Institutions	0.0157	0.0129	0.0365	0.0182	0.0220	0.0211
4.1. Provision of Production Assets	0.0157	0.0300	0.0389	0.0249	0.0064	0.0173
4.2. Farmer Development and Assistance	0.0157	0.0180	0.0209	0.0144	0.0234	0.0206
4.3. Strengthening Market Networks	0.0505	0.0513	0.0389	0.0249	0.0579	0.0519
4.4. Strengthening Local Institutions	0.0291	0.0117	0.0125	0.0469	0.0234	0.0214
5.1. Provision of Production Assets	0.0115	0.0128	0.0160	0.0116	0.0058	0.0100
5.2. Farmer Development and Assistance	0.0174	0.0388	0.0288	0.0182	0.0182	0.0248
5.3. Strengthening Market Networks	0.0517	0.0388	0.0502	0.0513	0.0435	0.0484

5.4. Strengthening Local Institutions	0.0305	0.0208	0.0160	0.0301	0.0435	0.0279
6.1. Provision of Production Assets	0.0222	0.0262	0.0414	0.0301	0.0143	0.0285
6.2. Farmer Development and Assistance	0.0444	0.0479	0.0142	0.0182	0.0143	0.0276
6.3. Strengthening Market Networks	0.0222	0.0262	0.0414	0.0116	0.0413	0.0285
6.4. Strengthening Local Institutions	0.0222	0.0109	0.0142	0.0513	0.0413	0.0266
7.1. Provision of Production Assets	0.0369	0.0392	0.0222	0.0182	0.0143	0.0298
7.2. Farmer Development and Assistance	0.0186	0.0230	0.0444	0.0116	0.0143	0.0193
7.3. Strengthening Market Networks	0.0186	0.0392	0.0222	0.0513	0.0413	0.0367
7.4. Strengthening Local Institutions	0.0369	0.0098	0.0222	0.0301	0.0413	0.0253
8.1. Provision of Production Assets	0.0291	0.0128	0.0119	0.0219	0.0086	0.0152
8.2. Farmer Development and Assistance	0.0505	0.0388	0.0514	0.0397	0.0428	0.0482
8.3. Strengthening Market Networks	0.0157	0.0208	0.0302	0.0098	0.0168	0.0172
8.4. Strengthening Local Institutions	0.0157	0.0388	0.0176	0.0397	0.0428	0.0306
9.1. Provision of Production Assets	0.0444	0.0444	0.0109	0.0116	0.0086	0.0156
9.2. Farmer Development and Assistance	0.0222	0.0222	0.0262	0.0182	0.0428	0.0303
9.3. Strengthening Market Networks	0.0222	0.0222	0.0262	0.0513	0.0168	0.0303
9.4. Strengthening Local Institutions	0.0222	0.0222	0.0479	0.0301	0.0428	0.0349

Appendix 2. 2 Normalize Result from Super Decision

	UNAIR	Kementan	DD Pusat	DD Jabar	Desa Tani	ALL
1.1. Provision of Production Assets	0.4233	0.5265	0.2242	0.2707	0.0581	0.2038
1.2. Farmer Development and Assistance	0.2267	0.1300	0.2242	0.1041	0.2107	0.2073
1.3. Strengthening Market Networks	0.1233	0.1300	0.4135	0.1634	0.2107	0.2180
1.4. Strengthening Local Institutions	0.2267	0.2135	0.1380	0.4618	0.5206	0.3709
2.1. Provision of Production Assets	0.1099	0.1892	0.5087	0.1041	0.1061	0.1682
2.2. Farmer Development and Assistance	0.1888	0.1892	0.1184	0.2707	0.1061	0.1682
2.3. Strengthening Market Networks	0.3507	0.5058	0.1865	0.1634	0.2406	0.3271
2.4. Strengthening Local Institutions	0.3507	0.1159	0.1865	0.4618	0.5472	0.3365
3.1. Provision of Production Assets	0.4547	0.5058	0.1715	0.2707	0.5135	0.3540
3.2. Farmer Development and Assistance	0.2620	0.1892	0.3285	0.4618	0.1984	0.3089
3.3. Strengthening Market Networks	0.1416	0.1892	0.1715	0.1041	0.0897	0.1474
3.4. Strengthening Local Institutions	0.1416	0.1159	0.3285	0.1634	0.1984	0.1897
4.1. Provision of Production Assets	0.1416	0.2704	0.3499	0.2241	0.0576	0.1558
4.2. Farmer Development and Assistance	0.1416	0.1624	0.1878	0.1299	0.2109	0.1851
4.3. Strengthening Market Networks	0.4547	0.4615	0.3499	0.2241	0.5207	0.4668
4.4. Strengthening Local Institutions	0.2620	0.1057	0.1124	0.4219	0.2109	0.1923
5.1. Provision of Production Assets	0.1035	0.1148	0.1443	0.1041	0.0526	0.0902
5.2. Farmer Development and Assistance	0.1567	0.3492	0.2592	0.1634	0.1639	0.2236

5.3. Strengthening Market Networks	0.4652	0.3492	0.4522	0.4618	0.3917	0.4355
5.4. Strengthening Local Institutions	0.2746	0.1869	0.1443	0.2707	0.3917	0.2507
6.1. Provision of Production Assets	0.2000	0.2355	0.3726	0.2707	0.1283	0.2561
6.2. Farmer Development and Assistance	0.4000	0.4308	0.1274	0.1634	0.1283	0.2483
6.3. Strengthening Market Networks	0.2000	0.2355	0.3726	0.1041	0.3717	0.2561
6.4. Strengthening Local Institutions	0.2000	0.0981	0.1274	0.4618	0.3717	0.2395
7.1. Provision of Production Assets	0.3323	0.3527	0.2000	0.1634	0.1283	0.2679
7.2. Farmer Development and Assistance	0.1677	0.2068	0.4000	0.1041	0.1283	0.1739
7.3. Strengthening Market Networks	0.1677	0.3527	0.2000	0.4618	0.3717	0.3302
7.4. Strengthening Local Institutions	0.3323	0.0878	0.2000	0.2707	0.3717	0.2281
8.1. Provision of Production Assets	0.2620	0.1148	0.1070	0.1972	0.0776	0.1366
8.2. Farmer Development and Assistance	0.4547	0.3492	0.4627	0.3572	0.3854	0.4337
8.3. Strengthening Market Networks	0.1416	0.1869	0.2717	0.0884	0.1516	0.1547
8.4. Strengthening Local Institutions	0.1416	0.3492	0.1587	0.3572	0.3854	0.2751
9.1. Provision of Production Assets	0.4000	0.4000	0.0985	0.1041	0.0776	0.1405
9.2. Farmer Development and Assistance	0.2000	0.2000	0.2354	0.1634	0.3854	0.2729
9.3. Strengthening Market Networks	0.2000	0.2000	0.2354	0.4618	0.1516	0.2729
9.4. Strengthening Local Institutions	0.2000	0.2000	0.4307	0.2707	0.3854	0.3139

Appendix 3. 1 Questionnaire for Youth Farmers in Desa Tani Program and the Surrounding Areas

Questionnaire for Youth Farmers in Desa Tani Program and Surrounding Areas				
This questionnaire uses a 5-point Likert scale, as follows: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree				
Research variable	Indicator	Questionnaire Items	No	Source
<i>Socio-demographics (Background Information)</i>	Age	Age Range	-	-
	Gender	L/P	-	-
	Education Level	Elementary / Middle School / High School / Bachelor's / Master's / Doctoral	-	-
	Marital status	Single/Married	-	-
	Family's background	Farmers / Non-Farmers	-	-
	Land Ownership Status	Farmers (Owned) / Farm Workers (Rented)	-	-
	Participant / Non-Participant	Are you currently participating in the Desa Tani Program?	-	-
<i>Youth Farmer Participation</i>	Interest in Participating in Agriculture	I am enthusiastic about developing the agricultural sector in the long term	1	Development from Rosada et al., 2023
		I am motivated to get involved in agriculture.	2	Development from Girdziute et al., 2022
		I believe agriculture offers promising opportunities for young people like me.	3	Development from Girdziute et al., 2022
<i>Economic Factors</i>	Land Availability	It is easy for me to obtain land for agricultural purposes in my village	4	Author's development
		Easy and smooth access to land is an important factor for me to start a farming business in this area.	5	Development from Rosada et al., 2023
		The Desa Tani Program has helped me overcome challenges related to accessing land for farming.	6	Author's development
	Access to Capital	I have the ease of obtaining financial resources to manage my agricultural activities.	7	Development from Rosada et al., 2023

		Easy and affordable access to loans or grants is very important for me to achieve success in the agricultural sector.	8	Development from Rosada et al., 2023
		This program has provided me with financial support to start or expand my farming business.	9	Author's development
Access to Technology		I have access to the latest technology and equipment needed for modern farming.	10	Development from Girdziute et al., 2022
		Modern agricultural technology is easily accessible and affordable for me.	11	Development from Girdziute et al., 2022
		This program has helped me learn about and use new technologies in my farming practices.	12	Author's development
Income		My agricultural activities generate a stable and sufficient income.	13	Development from Girdziute et al., 2022; Zidana et al., 2020
		I have a great opportunity to achieve financial sufficiency in agriculture.	14	Development from Girdziute et al., 2022; Zidana et al., 2020; Rosada et al., 2023
		This program has helped me increase my income from agricultural activities.	15	Author's development
Product Market Accessibility		It is easy for me to sell my agricultural products at a reasonable price.	16	Development from Rosada et al., 2023
		Close distance to the market / easy transportation is an important factor for me to market my harvest.	17	Development from Rosada et al., 2023
		This program has helped me connect with potential buyers and increase market access for my products.	18	Author's development
Social Factors	Youth's Views on Agriculture	I see agriculture as a compelling source of income.	19	Development from Girdziute et al., 2022; Zidana et al., 2020; Rosada et al., 2023
		This program has helped change negative perceptions about	20	Author's development

		agriculture among the youth.		
Family Hopes for the Next Generation		My family encouraged me to become a farmer	21	Development from Zidana et al., 2020; Rosada et al., 2023
		I feel motivated to continue my family's business in agriculture	22	Development from Zidana et al., 2020; Rosada et al., 2023
		This program has helped me to talk to my family about the benefits of being a farmer.	23	Development from Rosada et al., 2023
Access to Information and Training		I have access to adequate information and training opportunities to improve my agricultural skills and knowledge.	24	Development from Rosada et al., 2023
		Special training in agriculture will encourage me to work in agriculture	25	Development from Girdziute et al., 2022; Rosada et al., 2023
		This program has provided me with valuable training and knowledge to improve my farming capabilities.	26	Author's development
Community Support Systems		There is a strong support network among youth farmers in my village.	27	Development from Rosada et al., 2023
		I feel connected and supported by local people who have experience in the agricultural sector.	28	Development from Rosada et al., 2023
		This program has helped me connect with other youth farmers and build a supportive network.	29	Author's development
Zakat Empowerment Program (participants only)	Increase Interest & Knowledge	This program has increased my interest in becoming a farmer.	30	Author's development
		The activities of this program have helped me gain valuable knowledge about agricultural practices.	31	Author's development
		This program has broadened my understanding of potential opportunities in agriculture.	32	Author's development
	Increase Skills &	This program has equipped me with the skills necessary	33	Author's development

	Access Capital	to be successful in agriculture.		
		This program's financial assistance has helped in starting or expanding my farming business.	34	Author's development
		This program has connected me with resources to obtain the tools and equipment needed for my farming activities.	35	Author's development
	Increase Income & Standard of Living	My participation in this program has increased my income from farming.	36	Author's development
		This program has helped me improve my overall standard of living.	37	Author's development
		I am confident that I can achieve a better future through agriculture with the support of this program.	38	Author's development
	Program Satisfaction	I am satisfied with the overall design and implementation of the Desa Tani Program.	39	Author's development
		The program organizers have provided me with adequate support and guidance.	40	Author's development

Appendix 3. 2 Randomized Questionnaire for Program Participants

A. Respondent's identity

1. Name :
2. Age :
3. Gender :
4. Educational level :
5. Family Background :
6. Land Ownership Status :
7. Year of joining the Dompot Dhuafa Desa Tani program:
8. Average income (per month/season) before the program (Rp):
9. Average income (per month/season) after the program (Rp):
10. Average monthly household expenditure (Rp):

B. Instructions for Filling Out the Questionnaire:

This questionnaire uses a Likert scale with the following information:

- a. Scale 1 = Strongly Disagree (STS)
- b. Scale 2 = Disagree (TS)
- c. Scale 3 = Neutral/Undecided (N)
- d. Scale 4 = Agree (S)
- e. Scale 5 = Strongly Agree (SS)

No.	Statement Item	STS	TS	N	S	SS
1	This program has helped me connect with potential buyers and increase market access for my products.					
2	It is easy for me to obtain land for agricultural purposes in my village					
3	I have access to the latest technology and equipment needed for modern farming.					
4	This program has provided me with financial support to start or expand my farming business.					
5	It is easy for me to sell my agricultural products at a reasonable price.					
6	My agricultural activities generate a stable and sufficient income.					
7	Easy and smooth access to land is an important factor for me to start a farming business in this area.					
8	The Desa Tani Program has helped me overcome challenges related to accessing land for farming.					
9	I am motivated to get involved in agriculture.					
10	Easy and affordable access to loans or grants is very important for me to achieve success in the agricultural sector.					
11	This program has helped me learn about and use new technologies in my farming practices.					
12	I am enthusiastic about developing the agricultural sector in the long term.					
13	This program has helped me increase my income from agricultural activities.					

No.	Statement Item	STS	TS	N	S	SS
14	I have the ease of obtaining financial resources to manage my agricultural activities.					
15	Close distance to the market / easy transportation is an important factor for me to market my harvest.					
16	I believe agriculture offers promising opportunities for young people like me.					
17	Modern agricultural technology is easily accessible and affordable for me.					
18	I have a great opportunity to achieve financial sufficiency in agriculture.					
19	I feel connected and supported by local people who have experience in the agricultural sector.					
20	My family encouraged me to become a farmer.					
21	Special training in agriculture will encourage me to work in agriculture					
22	This program has provided me with valuable training and knowledge to improve my farming capabilities.					
23	There is a strong support network among youth farmers in my village.					
24	This program has helped me connect with other youth farmers and build a supportive network.					
25	I have access to adequate information and training opportunities to improve my agricultural skills and knowledge.					
26	I see agriculture as a compelling source of income.					
27	I feel motivated to continue my family's business in agriculture.					
28	This program has helped change negative perceptions about agriculture among the youth.					
29	This program has helped me to talk to my family about the benefits of being a farmer.					
30	I am satisfied with the overall design and implementation of the Desa Tani Program.					
31	This program has equipped me with the skills necessary to be successful in agriculture.					
32	This program's financial assistance has helped in starting or expanding my farming business.					
33	My participation in this program has increased my income from farming.					
34	This program has increased my interest in becoming a farmer.					

No.	Statement Item	STS	TS	N	S	SS
35	I am confident that I can achieve a better future through agriculture with the support of this program.					
36	The program organizers have provided me with adequate support and guidance.					
37	The activities of this program have helped me gain valuable knowledge about agricultural practices.					
38	This program has helped me improve my overall standard of living.					
39	This program has connected me with resources to obtain the tools and equipment needed for my farming activities.					
40	This program has broadened my understanding of potential opportunities in agriculture.					

Appendix 3. 3 Randomized Questionnaire for Non-Participants

A. Respondent's identity

1. Name :
2. Age :
3. Gender :
4. Educational level :
5. Family Background :
6. Land Ownership Status :
7. Average income (per month/season) in 2017-2018:
8. Average income (per month/season) for the last 2 years:
9. Average monthly household expenditure (Rp):

B. Instructions for Filling Out the Questionnaire:

This questionnaire uses a Likert scale with the following information:

- a. Scale 1 = Strongly Disagree (STS)
- b. Scale 2 = Disagree (TS)
- c. Scale 3 = Neutral/Undecided (N)
- d. Scale 4 = Agree (S)
- e. Scale 5 = Strongly Agree (SS)

No.	Statement Item	STS	TS	N	S	SS
1	It is easy for me to obtain land for agricultural purposes in my village					
2	I have access to the latest technology and equipment needed for modern farming.					
3	It is easy for me to sell my agricultural products at a reasonable price.					
4	My agricultural activities generate a stable and sufficient income.					
5	Easy and smooth access to land is an important factor for me to start a farming business in this area.					
6	I am motivated to get involved in agriculture.					
7	Easy and affordable access to loans or grants is very important for me to achieve success in the agricultural sector.					
8	I am enthusiastic about developing the agricultural sector in the long term					
9	I have the ease of obtaining financial resources to manage my agricultural activities.					
10	Close distance to the market / easy transportation is an important factor for me to market my harvest.					
11	I believe agriculture offers promising opportunities for young people like me.					
12	Modern agricultural technology is easily accessible and affordable for me.					
13	I have a great opportunity to achieve financial sufficiency in agriculture.					

No.	Statement Item	STS	TS	N	S	SS
14	I feel connected and supported by local people who have experience in the agricultural sector.					
15	My family encouraged me to become a farmer.					
16	Special training in agriculture will encourage me to work in agriculture					
17	There is a strong support network among youth farmers in my village.					
18	I have access to adequate information and training opportunities to improve my agricultural skills and knowledge.					
19	I see agriculture as a compelling source of income.					
20	I feel motivated to continue my family's business in agriculture.					

Appendix 3. 4 Interview Questions for Participants & Non-Participants

A. For Desa Tani Program Participants

Perception of Agriculture:

1. What do you think about agriculture as a livelihood path?
2. What are the biggest challenges you see faced by young people who want to enter the world of agriculture?
3. How do you view the social status of being a farmer in your community

Experience with the Desa Tani Program:

1. What motivated you to join this program?
2. What specific aspects of the program did you find most helpful or beneficial? (e.g., training, mentoring, financial assistance)
3. How has this program affected your knowledge and skills related to agriculture?
4. Did you face any challenges while participating in this program? If so, how do you solve it?
5. Do you feel this program has influenced your decision to pursue a livelihood in agriculture?
6. How can the Desa Tani Program be improved to better attract and support youth farmers?

B. For Non-Participants in the Desa Tani Program

Perception of the Program:

1. What do you think about agriculture as a livelihood path?
2. What are the biggest challenges you see faced by young people who want to enter the world of agriculture?
3. How do you view the social status of being a farmer in your community

Views on Agriculture as a livelihood:

1. Would you consider pursuing a livelihood in agriculture? Why or why not?
2. What are the biggest obstacles you see for youth who want to get involved in agriculture?
3. What support or resources do you need to feel comfortable starting your own farming business?

C. Closing Questions (Participants and Non-Participants):

1. Is there anything else you would like to share about your experiences or thoughts on agriculture and youth participation in this sector?

Appendix 3. 5 Interview Questions for Program Stakeholders

A. Program Design and Implementation

- For Program Administrators:
 1. Can you explain the aims and objectives of the Desa Tani Program?
 2. How does the program identify and recruit youth farmers to participate?
 3. Can you explain the different types of interventions offered by this program (e.g., training, financial assistance, mentoring)?
 4. How does the program monitor and evaluate its effectiveness in attracting and supporting youth farmers?
 5. What is the biggest challenge you faced in implementing this program?
- For Agronative Cooperatives' Representatives:
 1. Can you explain the role of your organization in supporting the Desa Tani Program?
 2. How does your expertise contribute to the training and technical assistance programs provided to youth farmers?
 3. Have you observed any changes in the knowledge and skills of youth farmers who took part in this program?
 4. What new trends or needs are you seeing in terms of agricultural practices among youth farmers?
- For Local Community Figures:
 1. What is the general perception of agriculture as a livelihood path among youth in this community?
 2. How does the Desa Tani Program effect the community's overall attitude towards youth involvement in agriculture?
 3. Do you see any challenges faced by youth farmers participating in this program when reintegrating into the local agricultural sector?
 4. How do you think this program can be further strengthened to create a more supportive environment for youth farmers in the community?

B. Program Effectiveness

- For All Stakeholders:
 1. In your experience, how effective is the Desa Tani Program in attracting young people's interest in agriculture?
 2. What evidence do you have to support the positive effect of the program on youth participation in the sector?
 3. What are the success stories of youth farmers who have benefited from this program?
 4. Are there any areas where you see this program could be improved to better achieve its goals?

C. Closing

1. Is there anything else you would like to share about the Desa Tani Program or youth participation in agriculture in this community?

Appendix 3. 6 Research Questionnaire for ANP Approach

Research Questionnaire for ANP Approach

<i>Signature</i>

Respondent:

Position:

Date :

ASSESSMENT SCALE HOW INFLUENTIAL

SCORING SCALE	NUMERICAL SCALE
The influence is much greater	9
	8
The influence is much greater	7
	6
Slightly bigger influence	5
	4
Greater influence	3
	2
Just as big an influence	1

NOTES:

1. Instructions for filling out the Appropriateness Scale for Intervention Aspects: Fill in the scale column with numbers 9 to 1, a score of 9 indicates the element with the highest level of suitability, it is possible for different items to have the same assessment scale.
2. Instructions for completing the Intervention Role Appropriateness Ratings: Rating assessment scores are given on a scale of 1-4. Scores for rating assessments may not be the same across items.

ECONOMIC FACTOR CATEGORIES

No	Economic Factors: Land Availability	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings	
		1	2	3	4	5	6	7	8	9	1-4	
1	How appropriate is the role of Production Asset Provision on land availability to attract the participation of youth farmers?											

2	How appropriate is the role of Farmer Development & Assistance regarding land availability to attract the participation of youth farmers?																	
3	How appropriate is the role of Strengthening Market Networks on land availability to attract the participation of youth farmers?																	
4	How appropriate is the role of Strengthening Local Institutions in land availability to attract the participation of youth farmers?																	

No	Economic Factors: Access to Capital	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings							
		1	2	3	4	5	6	7	8	9	1-4							
1	How appropriate is the role of Provision of Production Assets in access to capital to attract the participation of youth farmers?																	
2	How appropriate is the role of Farmer Development & Assistance in access to capital to attract the participation of youth farmers?																	
3	How appropriate is the role of Strengthening Market Networks in access to capital to attract the participation of youth farmers?																	
4	How appropriate is the role of Strengthening Local Institutions in access to capital to attract the participation of youth farmers?																	

No	Economic Factors: Access to Technology	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings
		1	2	3	4	5	6	7	8	9	
1	How appropriate is the role of Production Asset Provision for technology access to attract the participation of youth farmers?										
2	How appropriate is the role of Farmer Development & Assistance regarding technology access to attract the participation of youth farmers?										
3	How appropriate is the role of Strengthening Market Networks in technology access to attract the participation of youth farmers?										
4	How appropriate is the role of Strengthening Local Institutions for access to technology to attract the participation of youth farmers?										

No	Economic Factors: Income	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings
		1	2	3	4	5	6	7	8	9	
1	How appropriate is the role of Production Asset Provision on income to attract the participation of youth farmers?										

2	How appropriate is the role of Farmer Development & Assistance towards income to attract the participation of youth farmers?													
3	How appropriate is the role of Strengthening Market Networks on income to attract the participation of youth farmers?													
4	How appropriate is the role of Strengthening Local Institutions on income to attract the participation of youth farmers?													

No	Economic Factors: Market Accessibility	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings			
		1	2	3	4	5	6	7	8	9	1-4			
1	How appropriate is the role of Production Asset Provision for market accessibility to attract the participation of youth farmers?													
2	How appropriate is the role of Farmer Development & Assistance towards market accessibility to attract the participation of youth farmers?													
3	How appropriate is the role of Strengthening Market Networks in market accessibility to attract the participation of youth farmers?													
4	How appropriate is the role of Strengthening Local Institutions in market accessibility to attract the participation of youth farmers?													

SOCIAL FACTOR CATEGORIES

No	Social Factors: Youth Perceptions of Agriculture	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings
		1	2	3	4	5	6	7	8	9	1-4
1	How appropriate is the role of the Provision of Production Assets on youth perceptions about agriculture to attract the participation of youth farmers?										
2	How appropriate is the role of Farmer Development & Mentoring to youth perceptions about agriculture to attract the participation of youth farmers?										
3	How appropriate is the role of Strengthening Market Networks on youth perceptions about agriculture to attract the participation of youth farmers?										
4	How appropriate is the role of Strengthening Local Institutions on youth perceptions about agriculture to attract the participation of youth farmers?										

No	Social Factors: Family Expectations for the Next Generation	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings
		1	2	3	4	5	6	7	8	9	
1	How appropriate is the role of Providing Production Assets to the family's expectations for the next generation to attract the participation of youth farmers?										
2	How appropriate is the role of Farmer Development & Mentoring to the family's hopes for the next generation to attract the participation of youth farmers?										
3	How appropriate is the role of Strengthening Market Networks to family expectations for the next generation to attract the participation of youth farmers?										
4	How appropriate is the role of Strengthening Local Institutions to family expectations for the next generation to attract the participation of youth farmers?										

No	Social Factors: Access to Information and Training	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings
		1	2	3	4	5	6	7	8	9	
1	How appropriate is the role of Production Asset Provision for access to information and training to attract the participation of youth farmers?										

2	How appropriate is the role of Farmer Development & Assistance regarding access to information and training to attract the participation of youth farmers?												
3	How appropriate is the role of Strengthening Market Networks in access to information and training to attract the participation of youth farmers?												
4	How appropriate is the role of Strengthening Local Institutions for access to information and training to attract the participation of youth farmers?												

No	Social Factors: Community Support	Intervention Role Appropriateness Scale									Intervention Role Appropriateness Ratings	
		1	2	3	4	5	6	7	8	9	1-4	
1	How appropriate is the role of Production Asset Provision for community support to attract the participation of youth farmers?											
2	How appropriate is the role of Farmer Development & Mentoring towards community support to attract the participation of youth farmers?											
3	How appropriate is the role of Strengthening Market Networks for community support to attract the participation of youth farmers?											
4	How appropriate is the role of Strengthening Local Institutions for community support to attract the participation of youth farmers?											