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THE INFLUENCE OF SOCIAL CAPITAL ON THE SUCCESS OF URBAN FARMING PROGRAMS AT THE DAHLIA FARMERS' GROUP SEMARANG CITY

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ABSTRACT

The concept of urban agriculture can overcome the problem of shrinking productive agricultural land. Urban agriculture can run successfully in communities that have good social capital. This study aimed to investigate the role of social capital in urban farming success within the Dahlia Farmer Group. Conducted from December to January 2024. This research uses the methods analysis technique used is quantitative and statistical in the form of multiple linear regression. This research shows that norms have an important role in supporting the success of urban agriculture by establishing SOPs for members. The contribution of norms is essential because they create the basis for effective coordination within the group and ensure the achievement of common goals. Trust and networks have proven to be less influential because urban farming relies more on management and knowledge than on interpersonal relationships. The differences in previous studies bring newness (gap) in the research to be conducted. This study will contribute new understanding of the relationship between social capital and urban agriculture in farmer groups in urban areas, namely the Dahlia Farmer Group. Suggestions for the Dahlia Farmers Group are to prioritize strengthening norms that support urban agriculture, such as strengthening digital networks, developing mentorship, organizing social activities, establishing partnerships with external parties, and implementing a reward system.

Keywords: *farmer groups, social capital, urban agriculture*

BACKGROUND

The development of the agricultural sector is expected to be one of the mainstays in national development. This is because the agricultural sector is one of the fields that significantly contribute to national revenue and income. The Central Statistics Agency (2022) explained that in 2021, the contribution of the agricultural sector to the national GDP was around 13.7%, making it the second strongest sector after the manufacturing industry. The contribution of the agricultural sector makes its development program important as it relates to food provision and the increasing population every year. This is in line with research by Ismail (2018) stating that the increasing population also increases food consumption regionally and nationally. However, land availability in Indonesia remains a major issue concerning food provision due to various factors such as climate change, deforestation, and urbanization affecting the available land (Global Forest Watch, 2019). The Central Statistics Agency (2021) elaborated that the agricultural land area in Indonesia in 2020 reached about 29.1 million hectares, a decrease of around 0.15% from the previous year.

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One of region in Indonesia, Central Java, which has a relatively high population density, is Semarang City. Semarang City has a population density of 4,431.92 inhabitants/km² (Central Statistics Agency, 2021). As a metropolitan city in Indonesia, Semarang has experienced rapid population growth in recent years. This growth is accompanied by an increasing demand for food, but the availability of land for food production continues to decline (Fauzi et al., 2016). Moreover, the quality of land around urban areas is deteriorating due to industrial activities and urbanization, which trigger land degradation. This situation further limits the availability of agricultural land in Semarang and poses a threat to food security in the city. Additionally, the low level of awareness among the population about the importance of local food production and environmental sustainability exacerbates the problem. Many residents of Semarang tend to choose imported food products, which are cheaper than local ones (Semarang City Agriculture and Food Security Agency, 2021).

The narrowing of land in Semarang City, especially in Banyumanik District, further exacerbates the limited agricultural land and poses a threat to food security in the city. To address the issue of land limitation in Semarang City, serious efforts are needed, one of which is through the use of urban farming methods. Urban farming programs are initiatives aimed at maintaining quality of life and environmental sustainability. Urban farming programs can help in food security to maintain the quality of life of the population (Utari and Parining, 2020). One such farming group in Banyumanik District is the Dahlia Farmer Group. This farming group serves as both a platform and a source of information exchange in the social network for urban agriculture development or as a driving force in agriculture in Banyumanik District within Semarang City. The Dahlia Farmer Group has 36 members residing in the vicinity of the managed demonstration plot.

The Dahlia Farmer Group has been designated as an example for urban areas in implementing regenerative agricultural transformation. The existence of the urban farming concept can occur due to the presence of social capital within the community (Zutter and Stoltz, 2022). Social capital within farming groups refers to network relationships, norms, trust, and cooperation. Social capital is important to understand in order to know how farmers can obtain, recognize, accept, and apply information acquired for the sustainability of a farming group (Ermawati et al., 2021). Trust is a belief that exists in individuals who are part of a social group that they will trust each other which is useful for gluing and also maintaining relationships that have been established and there are attitudes, awareness, and also collective actions to achieve the goals of all group members (Nurhadiyono, 2019). Networks in social capital theory are relationships that are formed because of trust that is regulated by applicable values or norms. Social networks can be formed because of values and norms that are held firmly together by each member that underlie cooperation (Fathy, 2019). According to Putnam in Tjahjono (2017), norms consist of understandings, values, and goals set by the group. Norms are built and developed based on cooperation that has been carried out, implemented, and agreed upon to improve cooperation in a group.

Based on this theory, researchers are researching social capital and its influence on the success of urban agriculture. In the context of urban farming, social capital can play a crucial role in shaping a solid community, supporting each other, and sharing knowledge and resources needed in urban farming activities. This role can make farming groups active in various activities related to urban agriculture. Social capital also serves as an effort to manage, enhance, and utilize social relations as resources invested to gain economic benefits and social advantages, thereby helping to increase productivity. Several similar studies have been conducted previously (Tambunan et al., 2018). Differences in previous research bring novelty to the research to be conducted. This study will

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Vol 8 (3): 921-936, November 2024

contribute new understanding of the relationship between social capital and urban agriculture in farming groups in urban areas, namely the Dahlia Farmer Group located in Banyumanik District, using a quantitative approach, employing multiple linear regression analysis. This is expected to provide additional contributions to the development of knowledge and understanding of urban farming practices and the influence of social capital on its success.

RESEARCH METHODS

The sampling selection in this study was carried out to ensure accurate representation of the population. Based on previous research, sampling was conducted on the 36 members of the Dahlia Farmer Group using saturation sampling technique. The types of data used in this study are primary and secondary data. The primary data required include the implementation of urban farming and social capital applied by the Dahlia Farmer Group, including norms, networks, and trust, obtained through interviews and observations. Interviews were conducted with all 36 members, including the Chairperson, Secretary, and members of the Dahlia Farmer Group by visiting their homes. The estimated time for each interview was around 40 minutes per member. Interviews were conducted by distributing a questionnaire consisting of 37 questions, with each question guided by the researcher to facilitate respondents in answering. Observations were conducted simultaneously with the interviews by observing and directly recording the conditions and behaviors of each member of the Dahlia Farmer Group.

The secondary data required include the number of members of the Dahlia Farmer Group, agricultural land area, relevant books, and journals obtained through data collection and documentation techniques. Documentation was carried out by capturing photos using a mobile phone during visits to the Dahlia Farmer Group, participating in external activities, and during interviews to support the research findings. Analyzing the social capital in the Dahlia Farmer Group was conducted using descriptive analysis to present the characteristics of variables clearly, by conducting in-depth interviews with respondents. Analyzing the success of the farming program in the Dahlia Farming Group was done by measuring according to the success indicators of the activities carried out by the group, and analyzing the influence of social capital on the success of the farming program in the Dahlia Farmer Group was conducted by performing multiple linear regression based on the questionnaire to identify the influence of independent variables on the dependent variable using SPSS 26 in regression analysis to ensure accuracy in calculation and interpretation of results.

RESULT AND DISCUSSION

This research was conducted in the Dahlia Farmer Group, Semarang City. The Dahlia Farmer Group continues to actively engage in urban farming and consistently maintains and manages the demonstration plots they own. The Dahlia Farmers Group, located at Jalan Genade Selatan number 9, occupies a strategic position in the context of urbanization and regional development in Banyumanik District, Semarang City. This sub-district, with a total area of 2,509,084 hectares, is divided into eleven sub-districts, displaying significant geographic and demographic diversity. Their location, which is strategic yet limited, reflects the challenges faced by urban farmers in maintaining agricultural sustainability in a continuously developing area. This group faces challenges in maintaining land productivity amidst urbanization pressures, while also adapting to environmental

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Vol 8 (3): 921-936, November 2024

and economic changes brought about by infrastructure development and settlement expansion. Members of the Dahlia Farmer Group are also involved in environmental conservation initiatives, such as water resource management and the use of organic pesticides, to minimize negative impacts on the surrounding environment.

In this research, respondent characteristics include various variables that play an important role in detailing and analyzing research data. The characteristics of respondents who are research subjects will provide a comprehensive picture of their background and key characteristics. Respondent characteristics show the age distribution of the 36 Dahlia Farmer Group respondents, with significant variations ranging from 23 to 74 years and an average age of 54.44 years. A standard deviation of 12.171 indicates that most of the group members are mature, indicating experience and possibly in-depth knowledge of agriculture. This relatively low age variability shows that the majority of group members are in a similar age range. The Dahlia Farming Group, whose members are on average 54 years old, mostly uses old farming methods because they are used to and comfortable with using these methods. This means that they often farm in ways they have known for a long time, such as planting in traditional ways with simple tools such as hoes, sickles and gembors. However, this can make them slow in trying new things, such as using technology, such as plant watering drones, which can make farming easier with higher yields. Even though this group has many older members, they are still willing to learn and try new things. Young people who are members of the Dahlia Farming Group appear to be more adaptive to news and the use of modern agriculture. Often in Dahlia Farming Groups there are classes or workshops that teach about new technologies in agriculture, such as hydroponics which does not use soil for planting or aquaponics which combines fish and plants in one system.

Gender distribution in the Dahlia Farmers Group shows a predominance of women (77.8%) compared to men (22.2%). The presence of a majority of women in this group reflects the general trend of women's empowerment in the agricultural sector, especially in urban areas, where women often play an important role in food production and management of family resources. Female predominance may also indicate a more collaborative and communal approach to group management, which may increase the group's sustainability and effectiveness in achieving shared goals. The presence of male members, although fewer, is important to ensure diversity of perspectives and inclusion in decision making and resource allocation. Female members of the Dahlia Farming Group appear more active than male members. This can be seen when carrying out routine gathering activities for members, the dominant active members are mothers who are members of the group. The latest educational analysis of the Dahlia Farmer Group respondents shows significant variations in education levels, from elementary school to master's degree. The majority of members with higher education (50% have a Bachelor's degree) shows high potential for the integration of modern agricultural practices and current research in the group's activities. Diversification of educational levels allows for the transfer of diverse knowledge, from agricultural techniques to group management. Members with lower levels of education bring local and practical knowledge vital to day-to-day agricultural success. The job distribution of Dahlia Farmer Group respondents reflects the diversity of economic and professional backgrounds. The predominance of housewives (41.7%) and retirees (25%) indicates that this group may offer opportunities for members who may not be involved in the formal labor market to contribute productively and earn an income. The presence of entrepreneurs (16.7%) and civil servants (8.3%) adds a layer of managerial skills and networks that can support group operations and expansion. This diversity offers the potential for broader economic

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Vol 8 (3): 921-936, November 2024

activity, allowing groups to access a variety of resources and information, and integrate different perspectives in decision making and innovation.

Established in Semarang in 2019 by three founders, namely Mrs. Dani, Mrs. Srimulyana, and Mr. Noko, the Dahlia Farmer Group has experienced significant growth in building strong social capital. This social capital is not only evident from the increasing number of members but also from the active involvement of members in various group activities, including monthly contributions of Rp2,000. Group funding from various sources ranging from local government support, member-driven initiatives, to Corporate Social Responsibility (CSR) programs from Indomaret demonstrates a broad and diverse supporting ecosystem. Strategic collaborations with the Semarang City Department of Agriculture and Diponegoro University, which provide mentoring every two months, such as land processing assistance, integrated farming system development, and activity evaluations, have been supporting factors for the success of the Dahlia Farmer Group.

The development of a robust social network within the Dahlia Farmer Group is evident from several aspects. First, there is a sense of collective ownership of the group and its activities, where each member feels involved and responsible for the group's success. Second, the use of vacant land in urban areas for farming not only increases local food production but also encourages the surrounding community to actively engage in urban farming activities. Third, the practice of mutual cooperation manifested in collaborative planting, hydroponic maintenance, and catfish cultivation strengthens social ties among members and with the wider community. The social capital of the Dahlia Farmer Group is also reflected in community engagement. The surrounding community actively participates in utilizing vacant land for farming, creating synergy in urban farming activities. Social Capital in the Dahlia Farming Group can also be discussed in terms of three elements of social capital, namely norms, trust and networks. Norms function in the Dahlia Farming Group as guidelines that regulate interaction and cooperation between members. These norms include mutual agreements regarding land use, sharing of harvests, and management of shared resources. These norms not only ensure that agricultural activities run efficiently and sustainably but also maintain a balance between individual profits and the interests of the group as a whole.

The division between norms is divided into two, namely written and unwritten. Written norms include existing cooperation agreements, a formal document that establishes a schedule and system of joint work (mutual coorporation) for agricultural activities, such as planting, maintenance and harvesting. For example, the practice of written norms is regarding the collective work agreement, where the Dahlia Farmers Group can hold a meeting every six months to develop and agree on a joint work schedule that covers the entire cycle of agricultural activities from land preparation, planting, maintenance, to harvest. The document is then saved and used as an archive. Then, profit sharing, Written rules governing the distribution of harvests based on each member's contribution, ensuring fair and transparent distribution. The Dahlia Farming Group practices a profit sharing system, developing a detailed and fair harvest sharing formula, which is adjusted to the real contribution of each member, whether in the form of energy, resources or capital investment. This document should include a mechanism for assessing contributions and a transparent way of sharing results. Equipment and Environmental maintenance, guidelines that explain members' responsibilities in maintaining a clean and healthy agricultural environment, including waste management and the use of organic pesticides. The Dahlia Farming Group created a guidebook that explains in detail the responsibilities of members in maintaining the cleanliness of the agricultural environment and maintaining equipment. After that, unwritten norm, include, mutual trust, even though it is not written down,

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Vol 8 (3): 921-936, November 2024

mutual trust between members is very important, reflected in the habit of lending equipment to each other without requiring collateral. The practice of unwritten norms about mutual trust can be reflected when members of the Dahlia Farming Group lend equipment without asking for collateral to other members who need it. Support for members who experience difficulties, the habit of members volunteering to help their colleagues who are sick or experiencing difficulties in managing agricultural land. This reflects the strong solidarity and social concern among members. An example of the practice of unwritten norms regarding support for members who experience difficulties is that members of the Dahlia Farmers Group spontaneously organize community service. Knowledge exchange, the practice of sharing agricultural knowledge and experience, whether through informal discussions or through demonstrations of agricultural practices, is an unwritten norm that supports mutual learning and innovation.

Trust between members of the Dahlia Farming Group is the foundation that enables effective cooperation and coordination. This trust is built through shared experiences in facing challenges and achieving success. This trust is also reflected in the way group members communicate and share information, facilitating the exchange of knowledge and minimizing the need for close supervision. This strengthens the sense of belonging to the group and motivation to contribute more. Trust is maintained through transparency, especially in the management of the group's finances, and through achieving mutual success, which increases members' confidence in the group and the potential of urban agriculture as a means of economic improvement. Trust in this farmer group is realized from: financial transparency, trust is strengthened by the existence of transparent financial reports. Group members have access to review the use of funds, whether from monthly fees, government support, or CSR funds, ensuring all members feel treated fairly and with respect. Then, unconditional mentoring, more experienced members often provide assistance and training to newer or less experienced members without expecting anything in return. This practice reflects the belief that each contribution of knowledge will strengthen the group as a whole. Conflict management, the way the group handles internal conflicts also shows a high level of trust. Conflicts are resolved through open dialogue and mediation, strengthening trust that the group can overcome challenges together. For example, there was a disagreement between two members, Mrs. Ani and Mrs. Isti, regarding the transparency of harvest results. Ibu Ani felt that she did not know the harvest results for October, while Ibu Isti argued that all data regarding harvest results had been read orally but no data had been shared through the group.

The Dahlia Farmers Group's social network facilitates access to a variety of resources, including capital, the latest information on agricultural technology, and markets for their products. For example, a partnership with the Semarang City Agriculture Service and CSR support from Indomaret shows how networks can increase a group's capacity to face challenges and take advantage of new opportunities. These networks are also important in exchanging knowledge and experience between farmers, strengthening group social capital, and opening access to wider markets. Thus, through an effective network, the Dahlia Farmers Group can not only increase the productivity and sustainability of its business but also make a positive contribution to the welfare of the surrounding community. The network built by the Dahlia Farmers Group involves various parties providing resources, knowledge and market opportunities, collaboration with government agencies, strategic partnerships with the Department of Agriculture not only providing access to technical assistance and information about the latest agricultural practices but also opening up opportunities for get subsidies and direct assistance that can increase group productivity. The collaboration between the Dahlia

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

Farmers Group and the Department of Agriculture directly contributed to increasing the group's technical capabilities and productivity. Through an agreed partnership program, this group regularly receives training related to sustainable agricultural techniques and the use of the latest agricultural technology, such as the use of drip irrigation systems to optimize water use. Synergy with the private sector, CSR programs from companies such as Indomaret not only provide financial support but also enable groups to access wider markets and develop more professional packaging and marketing for their products. The Dahlia Farmers Group's partnership with Indomaret through the CSR program provides direct investment for the development of agricultural infrastructure, such as the construction of greenhouses which enable vegetable production throughout the year without being hampered by seasonal changes. Indomaret also provides training for the Dahlia Farmer Group on how to market products more effectively, including developing attractive packaging designs and effective branding strategies for organic vegetables. Indomaret allocates space in their outlets as the main distribution channel for products from the Dahlia Farming Group, ensuring this group has direct access to the retail market.

The success of the Dahlia Farmer Group's agricultural program in Semarang City has created positive impacts, such as the adoption of renewable energy sources, namely solar panels in hydroponic farming, demonstrating the group's success in adopting environmentally friendly technology. Additionally, community empowerment through neighborhood development, education, and positive contributions to food security and household expenditure savings of the surrounding residents demonstrate the positive and concrete impact of the Dahlia Farmer Group's agricultural program due to direct interaction and benefits perceived by the local community. This program has succeeded in several aspects, as detailed and specified in Table 1.

Table 1. Success Indicators of Dahlia Farmer Group Activities

No.	Aspect of Succes	Indicator of Succes	Measurement Method
1.	Integrated Agricultural Diversification	a. Types of plants and animals cultivated b. Land productivity	a. Inventory of plant and animal species b. Annualproduction report
2.	Use of Renewable Energy	a. Installed solar panel capacity b. Reducing conventional energy use	a. Technical data for solar panel installation b. Energy consumption reduction report
3.	Regenerative Agriculture	a. Regenerative agricultural land area b. Reducing the use of chemical pesticides	a. Land area measurement b. Notes on pesticide use
4.	Active Participation in Competitions and Awards	a. Number of competitions and awards won	a. List of awards and certificates received
5.	Community Empowerment	a. Number of sub-districts involved	a. List of partner subdistricts b. Household cost savings survey

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

No.	Aspect of Succes	Indicator of Succes	Measurement Method
	and Increased Welfare	b. Decrease in household spending on rice	
6.	Network Development (Pentahelix)	a. Number of partners b. Frequency and results of FGDs	a. List of collaboration partners b. FGD report
7.	Transparency and Good Management	a. Frequency of financial and activity reports b. Member involvement in decision making	a. Schedule and report archives b. Member meeting notes
8.	Education and Extension	a. Number of participants b. Participants' knowledge before and after training	a. Number of partners b. Knowledge evaluation

Source: Research Primary Data (2024)

Based on table 1. above, the following is a description of each success point of the Dahlia Farming Group:

1. Integrated Agricultural Diversification. The success of the Dahlia Farming Group in implementing an integrated agricultural system is measured by increasing productivity and sustainability. This system succeeded in increasing production yields by up to 20% in the first year of implementation, as evidenced by an increase in the number of crop harvests and livestock production.
   a. Impact before integrated agricultural diversification. Before implementing an integrated farming system, the Dahlia Farming Group may experience several challenges, such as:
      1) Dependence on Chemical Inputs: High use of chemical fertilizers and pesticides to increase production which can damage soil and environmental health.
      2) Limited Productivity: Crop and livestock productivity is limited by nutritional deficiencies and suboptimal resource management.
      3) Lack of Sustainability: Agricultural practices that do not pay attention to natural resource regeneration and long-term sustainability.
   b. Impact After Diversification. After implementing the integrated farming system, the Dahlia Farming Group experienced significant improvements in various aspects, such as:
      1) Increased Productivity: Production output increased by up to 20% in the first year of implementation, thanks to the synergy between crop farming, catfish cultivation and rabbits.
      2) Reduction of Chemical Input: Integration of this system reduces the need for chemical fertilizers and pesticides because organic waste from livestock is used as natural fertilizer to improve soil health.
      3) Environmental Sustainability: The ecological cycle created supports the regeneration of natural resources, such as improving soil quality and water use efficiency.
2. Use of Renewable Energy, the use of solar panels in a hydroponic irrigation system has succeeded in reducing electricity use from the main grid by 30%. This is a significant step in adopting renewable energy, with operational cost savings that can be allocated to other activities within the group. This energy efficiency also contributes to reducing carbon emissions, supporting

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

environmental conservation efforts. Before the adoption of renewable energy, the Dahlia Farming Group depended on electricity from the main grid which resulted in high operational costs. Using solar panels in a hydroponic irrigation system reduces electricity use by 30%. This marks a significant step towards sustainability by saving costs and reducing carbon emissions.

3. Regenerative Agriculture and Healthy Agriculture Guidelines, the selection of the Dahlia Farmers Group as the location for the regenerative agriculture project by Bappenas and the Langit Biru Foundation was based on specific indicators such as increasing biodiversity and sustainable management of water resources. This success is measured by an increase in the number of plant and animal species recorded on agricultural land, as well as water use efficiency of 25% compared to conventional methods. The project also succeeded in reducing soil erosion and increasing soil carbon stocks, which are direct indicators of regenerative agriculture. Initially, the Dahlia Farming Group was faced with the problem of increasingly infertile land and wasteful use of water. They then implemented regenerative farming practices, which not only increased biodiversity and managed water resources more sustainably but also increased water use efficiency by up to 25%. This proves that with the right methods, agriculture can become more sustainable and productive.
4. Active Participation in Competitions and Awards, the group's success in agricultural competitions and environmental awards is not just external recognition, but also a reflection of the innovation and quality of the agricultural practices implemented. This group succeeded in winning the urban farming competition with assessment criteria which included innovation in agricultural techniques, effectiveness of resource management, and socio-economic impact on the community. Awards from the Ministry of Environment and Forestry are based on specific indicators such as organic waste management and contribution to local food security. The Dahlia Farmers Group was previously little known outside their local community. However, after participating in and winning urban farming competitions, they gained recognition for their innovation and resource management effectiveness. This award not only enhances their reputation but also proves the success of their farming practices.
5. Community Empowerment and Increased Welfare, success in community empowerment is measured by increasing agricultural skills among local residents, who are involved in education and training programs. The direct impact can be seen from the increase in the number of families implementing homestead farming, with 150 families succeeding.

The selection of the Dahlia Farming Group as the location for the regenerative agriculture project by Bappenas and the Langit Biru Foundation indicates the group's success in implementing sustainable agriculture that is recognized nationally. According to Hidayat et al (2022), strong support from the government, private sector and community to facilitate the development of urban agriculture and increase knowledge and skills in agriculture. Recognition and support from the government for farmer groups as a model of sustainable agriculture at the national level reflects the group's success in implementing regenerative agricultural practices. The group's achievements in urban agricultural competitions, pro-clim, and awards from the Ministry of Environment and Forestry reflect the level of quality and innovation in implementing agricultural programs. According to Avlasovich et al (2020), the success of farmer groups in achieving recognition and success from competitions and awards not only provides additional motivation, but also increases the spirit of participation and involvement of members in group activities, because this external recognition provides positive encouragement and shows appreciation for their contribution. in agricultural programs.

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Vol 8 (3): 921-936, November 2024

Community empowerment through village development, education, and positive contributions to food security and saving on household expenses for local residents shows the positive and concrete impact of the Kempok Tani Dahlia agricultural program, because of the direct interaction and benefits felt by the local community. The Dahlia Farmer Group program has not only achieved internal success, but also made a real contribution to welfare and food security at the local level. According to Mulema et al (2019), empowering local communities through education and agricultural support, farmer groups strengthen their role as agents of positive change in local communities with a wider and more sustainable impact. The group's collaboration with various external parties, including the urban agricultural community, business world, media, universities and local government, illustrates success in building a strong network (pentahelix) to support agricultural programs. According to Henry (2023), cross-sector collaboration is the key to the success of farmer groups in building diverse and resilient networks, because synergy between parties who have different interests and roles in urban agricultural development increases program effectiveness through the exchange of knowledge, resources and mutually beneficial support. Transparency in group management, involving members in decision making, and regular reporting to the Department of Agriculture demonstrate the principles of good governance, supporting sustainability and member trust. According to ElMassah and Mohieldin (2020) transparency in resource management and decision making, involving members, as well as regular reporting to the government, builds a solid foundation for farmer groups in achieving operational sustainability and growth, while maintaining members' trust and support from related parties.

The success of the Dahlia Farmers Group as a learning center for urban agriculture and regenerative agriculture with a number of members reaching 300 people from 50 learning organizations confirms the positive impact on local community knowledge about sustainable agriculture because this group has become a significant source of education. According to Wang et al (2023) many members and various learning organizations involved can make farmer groups create a multiplier effect in disseminating sustainable agricultural information and practices, reflecting society's broad interest in agricultural learning and indicating the group's positive role as a credible learning center to improve understanding and awareness of the surrounding community. The success of the Dahlia Farming Group is not only reflected in its achievements and external recognition, but also in the positive impact it has had on its members and surrounding communities in terms of welfare, food security and environmental conservation. According to O'Hara and Toussaint (2021), the success of an entity or individual is not only visible from the achievements or awards received from outside, but also from its contribution to the welfare of its members and surrounding communities, its ability to create food security, and its efforts to maintain sustainability environment.

The influence of social capital on the success of urban farming programs in the Dahlia Farmer Group was conducted by using an instrument test, which was done by testing the validity and reliability of the questionnaire results conducted on a different farming group, namely the Seruni Farmer Group, consisting of 20 members, which shares some similarities with the Dahlia Farmer Group based on location, activities conducted, and commodities grown. The results of the validity test in this study showed a significant relationship between each indicator of the variables Trust, Network, Norms, and Urban Farming Success. Therefore, it can be concluded that the instrument used in this research has been proven valid. The results of the reliability test showed that the research instrument used is reliable or has met reliability criteria. Furthermore, classical assumption tests were conducted, consisting of a normality test which resulted in residual values having a distribution close

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Vol 8 (3): 921-936, November 2024

to normal, multicollinearity test which resulted in all VIF values of the variables being below 10, indicating no multicollinearity issues in this research model, and heteroskedasticity test which resulted in scattered points without consistent patterns at the top or bottom, as well as around the number 0. This indicates that there is no indication of heteroskedasticity in this model.

Table 2. Multiple Linear Regression Analysis Model

Model	Unstandardized Coefficients B	Std. Error	Standadized Coefficients Beta	t	Sig.
(Constant)	38.550	5.359		7.194	.000
X1	.353	.302	.155	1.170	.251
X2	.407	.306	.202	1.331	.193
X3	1.105	.300	.574	3.689	.001

Source: Research Primary Data (2024)

The multiple linear regression analysis model is a statistical method used to model the relationship between one dependent variable (or response variable) and two or more independent variables (or predictor variables). This model assumes a linear relationship between the dependent variable and the independent variable. The main objective is to predict the value of the dependent variable based on a combination of independent variables and to assess the strength and form of the relationship between the dependent variable and one or more independent variables. Based on the results of the analysis, a mathematical equation can be formed as below:

$$Y = 38.550 + 0.353X1 + 0.407X2 + 1.105X3 + e$$

Based on the calculation above, the following is the interpretation:

1. X1, refers to Trust. Trust between actors in the urban agricultural ecosystem, including between farmers and consumers and farmers and service providers, is known to have a positive impact on success. In the model, the coefficient for X1, which is at magnitude 0.353, confirms the significant contribution of trust in increasing the success of urban agriculture. Trust between members of the Dahlia Farmer Group is the foundation that enables effective cooperation and coordination. This trust is built through shared experiences in facing challenges and achieving success. For example, group members who lend each other equipment or share resources without requiring formal collateral demonstrate high levels of trust. This trust is also reflected in the way group members communicate and share information, facilitating the exchange of knowledge and minimizing the need for close supervision. This strengthens the sense of belonging to the group and motivation to contribute more. Trust is maintained through transparency, especially in the management of the group's finances, and through achieving mutual success, which increases members' confidence in the group and the potential of urban agriculture as a means of economic improvement.
2. X2, refers to Network. Strong social and professional networks among urban agriculture actors facilitate the exchange of information, resources, and support, all of which are crucial for success. The coefficient of 0.407 for X2 indicates that expanding and strengthening the network contributes positively to the success of urban agriculture. The Dahlia Farmers Group's social network facilitates access to a variety of resources, including capital, the latest information on agricultural

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

technology, and markets for their products. For example, a partnership with the Semarang City Agriculture Service and CSR support from Indomaret shows how networks can increase a group's capacity to face challenges and take advantage of new opportunities. These networks are also important in exchanging knowledge and experience between farmers, strengthening group social capital, and opening access to wider markets. Thus, through an effective network. The Dahlia Farmer Group can not only increase the productivity and sustainability of its business but also make a positive contribution to the welfare of the surrounding community.

3. X3, includes norms. Social norms and values prevailing in society play a crucial role in shaping behavior and decisions regarding urban agriculture. With a coefficient of 1.105, X3 shows a very strong influence on success, indicating that supportive communal norms and values can substantially increase the success of urban farming. Norms function in the Dahlia Farmer Group as guidelines that regulate interaction and cooperation between members. These norms include mutual agreements regarding land use, sharing of harvests, and management of shared resources. For example, there is a clear agreement on a joint work schedule (mutual cooporation) and a profit sharing system aimed at ensuring fair distribution based on the contribution of each member. Apart from that, there is also individual responsibility in maintaining the cleanliness and health of the agricultural environment, which if violated, can result in social sanctions such as reprimands from other members or reduction of rights in sharing the results. These norms not only ensure that agricultural activities are efficient and sustainable but also maintain a balance between individual profits and the interests of the group as a whole.
4. The constant in the model, denoted by a and having a value of 38,550, shows the predicted value of Y when all independent variables are zero. This reflects the basis of success that can be expected without the influence of the factors being measured.

Table 3. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860	.739	.714	2.64152

Source: Research Primary Data (2024)

The coefficient of determination is an indicator that describes the extent to which variations in a variable can be explained by other variables. In other words, the coefficient of determination is used to measure the effectiveness of the independent variable in explaining variations in the dependent variable. The coefficient of determination value of 0.739 in this model can be interpreted to mean that around 73.9% of the variation in urban agricultural success data can be explained by trust, network and norm factors. In contrast, around 25.1% of the variation was explained by other factors not included in the analysis model.

Table 4. F Test

Model	ANNOVA[a] Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	612.836	3	204.279	29.276	.000[b]
Residual	216.307	31	6.978		
Total	829.143	34			

Source: Research Primary Data (2024)

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

The F test is often applied to significantly assess the influence of an independent variable on the dependent variable. If the significance value is less than 0.05, it can be concluded that together the independent variables have an influence on the dependent variable. In other words, changes in the dependent variable can be explained by changes in the independent variable, with a significance level set at 0.5%. The significance value is 0.001 which is smaller than 0.05, it can be concluded that the independent variables have a joint influence on the dependent variable. Based on the interpretation of the F test results, it shows that the variables of trust, network and norms which simultaneously form social capital, have a significant influence simultaneously on the success of urban agriculture represented by the Dahlia Farmer Group in Semarang City. This analysis, based on a significance value much lower than 0.05, confirms that changes in the dependent variable, namely the success of urban agriculture, can be jointly explained by the independent variables. Significant F value, this research supports the hypothesis that social capital, through the elements of trust, networks, and norms, contributes significantly to the dynamics and success of urban agriculture. This simultaneous influence emphasizes that not one aspect of social capital stands alone in influencing the success of urban agriculture, but rather a combination of mutually integrated beliefs, networks and norms. Trust facilitates effective cooperation and communication between group members; the network provides a platform for the exchange of information, resources, and support; while norms influence individual and group behavior and decisions in accordance with the values and standards accepted by the community. All of this creates a conducive ecosystem for urban agriculture that does not only focus on production aspects, but also on empowering members and communities, sustainability and social welfare.

This interpretation supports the view that building social capital is a key strategy in increasing the capacity of urban farmer groups. The Dahlia Farmers Group's ability to collect funds through various sources, collaborate with external parties such as the Semarang City Agricultural Service, and activate participation and mutual cooperation between members and the surrounding community, directly reflects the value of strong social capital. Based on a research perspective, these results underscore the importance of considering and integrating elements of social capital in urban agricultural development strategies. It also shows that the success of urban agricultural interventions depends not only on technical or financial factors, but also on social dimensions that influence interactions between individuals and between groups in the context of urban agriculture.

Tabel 5. t-Test

Coefficients[a]					
Model	**Unstandardized Coeffients**		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
1 (Constant)	38.550	5.359		7.194	.000
X1	.353	.302	.155	1.170	.251
X2	.407	.306	.202	1.331	.193
X3	1.105	.300	.574	3.689	.001

Source: Research Primary Data (2024)

The t-test is used to evaluate the partial influence of independent variables, such as social capital including trust, networks, and norms, on the dependent variable, namely the success of urban farming, assuming that other dependent variables remain constant. If the significance value is greater

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

than 0.05, it can be concluded that the independent variable does not have a significant partial influence on the dependent variable. Based on the analysis results, it can be concluded that, partially, the independent variable of social capital, namely the Norms variable (X3), has an influence on the dependent variable, namely the success of urban farming program in the Dahlia Farmer Group, Semarang City, with a significance value below 0.05, namely 0.001. Meanwhile, for the variables Trust and Networks, they do not have an influence on the success of the Program because their significance values are above 0.005, namely 0.251 (X1) and 0.193 (X2).

The interpretation of the t-test results (partial) in the research of the Dahlia Farmer Group in Semarang City indicates that the Norms variable (X3) has a significant influence on the success of urban farming, while the Trust (X1) and Networks (X2) variables do not show significant influence. This indicates that, in the context of the Dahlia Farmer Group, social norms and values embraced by the community play a crucial role in supporting the success of their urban farming efforts. The significant contribution of Norms to the success of urban farming, with a significance value of 0.001, confirms that practices and behaviors regulated by shared norms and values within the community have a greater impact compared to trust and social network aspects in this case. The insignificance of the influence of Trust and Networks on the success of urban farming, with significance values of 0.251 for X1 and 0.193 for X2, may indicate that although trust and network formation are important elements of social capital, they may not directly contribute to specific outcomes in the context of urban farming in the Dahlia Farmer Group. There may be other factors that play a more dominant role in determining success, such as the ability to adapt to social norms and the effective implementation of values in farming practices, which directly affect the performance and success of urban farming.

CONCLUSION AND SUGGESTION

Based on the research results, it can be concluded that:

1. This research shows that the Dahlia Farmers Group has succeeded in building strong social capital, consisting of trust, networks and sustainable social norms. This social capital is formed through active participation and cooperation between members, which supports the exchange of information and resources, and strengthens mutual trust. Success in collecting funds from various sources, including member fees, sub-district assistance, self-help, and CSR, shows the group's effectiveness in managing finances and creating sustainable resources. Collaboration with the Semarang City Agriculture Service and involvement of local communities in group activities emphasizes the value of social capital in increasing the effectiveness and sustainability of urban agriculture
2. The success of the Dahlia Farmers Group's agricultural program in Semarang City is manifested in the integration of sustainable agriculture, use of renewable energy, achievements in competitions and awards, as well as positive contributions to community empowerment and environmental conservation.
3. The social capital variable, namely the norm variable, has a significant influence on the success of the urban farming program in the Dahlia Farmer Group, Semarang City. Social capital variables, which include trust and network variables, do not have a significant influence on the success of the urban farming program in the Dahlia Farmer Group, Semarang City.

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http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (3): 921-936, November 2024

Based on the research findings, a number of suggestions have been put forward to increase the success of the urban farming program in the Dahlia Farmer Group, Semarang City, including:

1. Holding Shared Values Workshops and Training: Hold Shared Values Workshops and Training: Organize regular workshops and training sessions to strengthen social norms that support urban farming practices. Focusing on establishing shared values, such as sustainability, organize regular workshops and training sessions to strengthen social norms that support urban farming practices. Focusing on establishing shared values, such as sustainability, fairness in profit sharing, and social responsibility, can increase member awareness and involvement. This will also help new members integrate themselves with the group's values and goals more quickly and effectively.
2. Building and Strengthening Digital Networks: Considering that trust and networks do not show a significant influence, there is an opportunity to improve both aspects through the use of digital platforms. Groups can utilize social media, group messaging applications, or online collaboration platforms to facilitate the exchange of information, share resources, and support each other in daily activities. Digital platforms can also be used to market products, share successes, and increase group visibility.
3. Organize Social Activities every Two Weeks: Organizing regular social activities, such as member dinner gatherings, family days, or other social activities that can strengthen personal bonds and trust between members. These kinds of social activities not only improve morale but also open up opportunities for informal discussions that can strengthen cooperation within the group.
4. Implement a Reward and Recognition System: Implement a reward and recognition system for members who demonstrate dedication, innovation, or extraordinary contributions to the group. This kind of recognition not only motivates members but also strengthens positive values and norms within the group. In order to appreciate and motivate members of the Dahlia Farmers Group, a reward and recognition system can be implemented that is not based on money but focuses on prestigious awards. This may include the presentation of certificates of appreciation at the group's annual event to members who demonstrate exceptional innovation or dedication, opportunities for further training, as well as the appearance of their name on an awards board as a form of ongoing recognition. As a very prestigious form of appreciation, groups can name plant varieties or projects after members who contributed significantly, as well as publish their success stories in local media or group social media to increase the motivation of other members and strengthen positive values and norms within the group and increase profile of farmer groups in wider society.

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