



DOI: 10.31186/jagrisep.21.2.381-396

DAIRY FARMERS' GROUP DYNAMICS IN "NEW NORMAL" ADAPTATION (A Study Case in Pujon District)

*Dinamika Kelompok Peternak Sapi Perah Terhadap Adaptasi New
Normal (Studi Kasus di Kecamatan Pujon)*

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ABSTRACT

Dairy farming in East Java, particularly in Malang Regency, is supported by several districts such as Karangploso, Ngantang, Ngajum, and Pujon as the dairy production centers. Pujon district is one of the dairy production centers in Malang Regency, reaching 20,411 cattle. This research aims to describe the dairy farmers' group dynamics condition and determine its group dynamics level. The location was purposively determined by considering the dairy center area in Malang Regency, where the majority population is dairy farmers. The researcher used the descriptive analysis method and selected 50 respondents by Purposive Sampling. The data were collected using a structured questionnaire, interview, observation, and documentation. Furthermore, the results showed that the majority of group dynamics is categorized as "high," yet only two elements are categorized as "moderate," namely group structure (70.3%) and group training and development (70.4%). In this view, the high number of group dynamics showed pride and satisfaction with their work performance regarding achieving the group's goals. Also, good leadership will improve group effectiveness.

Keyword: *agriculture, dairy cattle, farm, group dynamics*

ABSTRAK

Kecamatan Pujon merupakan salah satu sentra penghasil susu sapi perah di Kabupaten Malang dengan populasi sapi perah terbanyak dengan jumlah populasi sapi

perah sebesar 20.411 ekor. Penelitian ini bertujuan untuk mendeskripsikan kondisi dinamika kelompok peternak sapi perah serta mengetahui tingkat dinamika kelompok ternak sapi perah di Kecamatan Pujon. Pemilihan lokasi ditentukan secara purposive yakni dengan mempertimbangkan daerah sentra penghasil susu di Kabupaten Malang dengan mayoritas penduduk memiliki pekerjaan sebagai peternak terutama komoditas susu perah. Penelitian ini mengambil sampel sebanyak 50 responden dengan metode Purposive Sampling. Analisis deskriptif dan studi kasus digunakan untuk menggambarkan informasi permasalahan penelitian dengan jelas serta mendalam dengan bentuk kata-kata dengan Metode pengumpulan data menggunakan metode pengisian kuisioner terstruktur, wawancara secara langsung, observasi dan dokumentasi. Hasil penelitian menggambarkan unsur-unsur dinamika kelompok pada peternak sapi perah di Kecamatan Pujon, Kabupaten Malang mayoritas berkategori tinggi, dengan dua unsur yakni struktur (70.3%) serta pembinaan dan pengembangan kelompok (70.4%) yang menduduki kategori sedang. Tingginya nilai dinamika kelompok menunjukkan dengan rasa bangga dan puas anggota kelompok dalam kinerja kelompok ternak perah dalam pengampaian tujuan bersama. Kepemimpinan kelompok yang baik tentunya akan berjalan searah dengan tingkat efektifitas kelompok yang baik pula.

Kata Kunci: pertanian, sapi perah, peternakan, dinamika kelompok

INTRODUCTION

As an agricultural and maritime country, Indonesia has proven that it has various natural wealth, ranging from oil and gas to vegetable and animal wealth. One of which that annual positively increases is livestock sector. According to BPS data (2020), the increasing livestock population in Indonesia in 2019 was 16,930,025, while in 2020 reached 17,466,792 cattle. In other words, the livestock sector within a year (2019 - 2020) experienced a population growth of 536,767 cattle. Livestock data (2020) showed that, from the total livestock population in Indonesia in 2020, 3.3% are cattle or 584,080. It is produced chiefly in East Java 298,520, followed by West Java 120,650 cattle. According to Noviana et al. (2021), the average increase of dairy farmers' population is 2%. The development of new farmers must support the rapid growth of livestock in Indonesia, yet the fact happening in the field is disproportionate (Mahmud et al., 2020; Rusdina & Soeharsono, 2019). Such issues have become one of the internal factors affecting the livestock sector in Indonesia. However, new external factors such as the Covid-19 pandemic may also become the issue.

Dairy farming in East Java, particularly in Malang Regency, is supported by several districts such as Karangploso, Ngantang, Ngajum, and Pujon as the dairy production centers. Pujon District has the largest dairy population, 20,411 cattle (BPS,2019). However, this large population has not been supported by a qualified breeding method. The dairy farmers in Pujon are small-scale-categorized, in which the breeding method used is still traditional without a

qualified tool for a larger production. Consequently, they are able to raise 1-3 cattle only. According to Muhyidin et al. (2019), the farmers are classified as contemporary breeders. That will obstruct the growth of milk production. Malau et al. (2021) mentioned that most dairy farmers in Indonesia are smallholder farmers who perform traditional management and low production. Therefore, the livestock groups become an essential tool in developing and adapting technology for the development of dairy farming.

Pujon as one of the sub-districts of milk-producing centers located in the mountainous area, the temperature is cold with an average temperature of 19-26 degrees Celsius and rainfall of 2,310 mm per year, making it possible to become a breeding ground for dairy cattle. Dairy farming activities in Pujon District began since the colonial era of the Dutch East Indies, around the middle of the 19th century. The livestock business in the Pujon district is classified as small-scale people's livestock, but almost all of the people of Pujon depend on the economy of their family on the livestock sector, especially milk. The rapid development of dairy farming occurred after the government's support program by providing imported Friesian Holland cattle as many as 90 heads in 1964 with a noise system and the establishment of a cooperative relationship between PT. Nestle with the SAE Pujon Cooperative, the enthusiasm of the community began to increase along with the stability of livestock business activities in Pujon District.

Covid-19 pandemic in early March 2020, which quickly spread in many regions, made Indonesia have to prepare anticipatory policies. It is in line with Purwanto et al. (2020) that through the National Disaster Management Agency (NDMA), the governments implement Large-Scale Social Restrictions (LSSR) to suppress the spread of the covid-19 virus. Another policy is the allocation of finance from various sectors, including the agriculture-livestock, allocated to the health sector. According to Thaha (2020), the governments' policies to suppress the spread of covid-19 cause economic activities, such as sale-purchase, export-import, and logistics, to falter and decline. These circumstances certainly affect the decline in demand and price of livestock. Statistics Indonesia in 2020 has predicted that livestock business will experience long-term losses due to reduced labor, hampered feed logistics, and decreased productivity. The enactment of the LSSR policy hindered the farmers from distributing livestock products and finding the feeds. These restrictions also impact the limitation of farmers' group activity, which they are not allowed to gather for meetings or discussions to solve several problems within the group.

Farmer's group is an organization formed and developed in the livestock community. It is created based on the common goals to achieve and the same issues experienced by the members. According to Nurhayati & Swastika (2016) and Wildan et al. (2019), a formed group purposes to solve problems and obstacles that cannot be solved individually. Farmer groups are a means of

intermediary between farmers and the government as a forum for counseling and learning (Hariri et al., 2016). Rural areas, where most farmers like in Pujon District, made the farmer groups easy to find. Bakhtiar et al. (2020), expressed that the activities carried out simultaneously through the farmer groups will be effective for the farmers. Therefore, the primary purpose of this research to conduct, which is to determine the condition and group dynamics of dairy farmers in Pujon District in the new normal adaptation in Malang district.

The importance of knowing the level of dynamics of the dairy farmer group in Pujon District, will be a benchmark for the success and performance of the group. Group dynamics are forces that emerge from within the group which are characterized by nine elements, namely: (1) Leadership, (2) Group goals, (3) Group Structure, (4) Function & Responsibilities, (5) Group training & development, (6) Group Cohesiveness, (7) Group Atmosphere, (8) Group Pressure and (8) Group Effectiveness. These elements will certainly have an influence on group life, activity and productivity to achieve goals. Therefore, it is important for this research to be carried out in order to assess and improve the changes caused by internal and external problems during the Covid-19 pandemic in the livestock group of Pujon District.

The previous research regarding group dynamics was conducted by Rosyidi et al. (2021), who took the Fishermen Association in Paciran District, Lamongan Regency, East Java, as the subject. The research was conducted from February to March 2019. The researcher used a quantitative survey method using simple random sampling. The indicators of group dynamics included group goals, structure, functions and responsibilities, training and development, cohesiveness, atmosphere, pressure, effectiveness, concealed agenda, and group dynamics. The results showed that the group dynamics and fishers' independence are high; however, the group dynamics do not affect the independence of fishers. A similar study was conducted by Bakhtiar et al. (2020), in which the subject was a group of horticultural farmers, aiming to compare the results of the farmers' group dynamics in Malang and the city of Batu. The descriptive analysis method results showed 77,18% of the farmers' group dynamics in Malang and 77.27% and 77.08% in Batu and Pujon District. Both are high-classified.

Based on this background, this research aims to 1) describe the dairy farmers' group dynamics in Pujon District 2) figure out the levels of the dairy farmers' group dynamics in Pujon District towards "new normal" adaptation in Malang Regency. This research expectedly provides information regarding dairy farmers in Pujon District in a "new normal" adaptation.

RESEARCH METHOD

The research location was purposively determined based on the milk-producing centers in Malang Regency, with a significant population as a dairy

farmers. In this regard, the researcher found Pujon District because it is easy-accessed to obtain the primary data. The research was conducted within seven months, from April to November 2021.

The data collection was focused on the livestock group in Pujon District, including the organizer such as the chief, secretary, and treasurer. The sample selected was purposive sampling, in which the respondents must meet the criteria: a dairy farmer, joining a dairy farmer group, and domiciled in Pujon District. The population was two farmer groups. The first group was Anjasmoro Agrilestari from Pandesari Village, consisting of 16 farmers, while the second was Tortosari Krisna Gemilang from Ngabab Village, composed of 200 farmers. Only 50 respondents were selected for the samples. 0 respondents were selected because they met the selection criteria, namely being active in group activities starting from daily meetings, working on work programs. Respondents are considered able to represent the picture of the livestock group because of their activeness in group activities compared to other members who are not active. Inactive members are considered less able to explain and describe group dynamics in their group.

Meanwhile, the data was collected from the interview, observation, and documentation, in the form of photos, videos, and note-taking. The source of data included primary data and secondary data. The main data was the interviewee's response to the group members in Pujon District based on the structured questionnaire, consisting of related indicators. The secondary data referenced literature studies, including published and unpublished books and archived data. The researcher applied both qualitative and quantitative data.

Furthermore, the researcher used the qualitative descriptive analysis method to describe the research problems clearly and in-depth (Nasution, 2017). In answering the first objective, this method was supported by the results of tabulated data processed in the form of age, sex, and education level. The second objective was explained by descriptive analysis technique to determine the level of group dynamics based on the indicators of variables which consist of (1) leadership, (2) group goals, (3) group structure, (4) functions and responsibilities, (5) group training and development, (6) group cohesiveness, (7) group atmosphere, (8) group pressure, and (9) the effectiveness of the group. Each dynamic groups variable indicator are described in detail through statement items. These indicators of variables were obtained from the questionnaire results using the Linkert scale, consisting of 5 categories, Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), Strongly Disagree (1). The level of group dynamics was determined based on the total percentage score of all components, which was divided into three: low ($\leq 46\%$), moderate (47% - 73%), and high (74% - 100%). For more details, the scale in filling out the questionnaire is presented in Table 1.

Table 1. Linkert Scale Table

No	Symbol	Explanation	Score
1	SA	Strongly Agree	5
2	A	Agree	4
3	U	Uncertain	3
4	D	Disagree	2
5	SD	Strongly Disagree	1

RESULT AND DISCUSSION

Respondents' Characteristics

The following table includes sex, age, and education level. These three characteristics describe the farmer's demographics in Pujon District. For more details, the characteristics of the respondents are presented in Table 2.

Table 2. Respondent's Profile

No	Characteristics	Total	%
1	Sex		
	Male	42	84,00
	Female	8	16,00
2	Age		
	21-30	6	12,00
	31-40	16	32,00
	41-50	24	48,00
	51-60	4	8,00
3	Education Level		
	Elementary school	11	22,00
	Junior high school	10	20,00
	High school	28	56,00
	Bachelor	1	2,00

Source : Primary data (processed), 2021

Table 2 shows various respondents' characteristics with three criteria: sex, age, education level. Based on sex, 84.00% of the population is dominated by males (42 persons), followed by 16.00% of females (8 persons). This comparison shows that dairy farm requires heavy labor, and therefore, the majority of the

farmers are males. The Female's role in livestock activities is to help ease men's work. According to Ervina et al. (2019), women generally have the part of business supervisors while their husbands are taking care of their livestock. Patriarchal culture, housewives, and discrimination are the causes of the low participation of women workers (Lusiyanti, 2020).

Table 2 shows that the majority of farmers' age is divided into four: 21-30, 31-40, 41-50, and 51-60. From all respondents, the most active farmers are dominated by 24 respondents aged 41-50 (48.00%), followed by 16 respondents aged 31-40 (32.00%), 6 respondents aged 21-30 (12.00%), and 4 respondents age 51-60 (8.00%). These various ages are closely related to the mindset and productivity in managing the livestock business. Between 15-64 is considered productive age, while ≥ 64 is stated as unproductive age (Otampi et al., 2017). In addition, 48.00%, entering vulnerable unproductive age, dominates all respondents represented by the age 41-50. The low percentage aged 21-30 was caused by the low generation process of breeders. The younger generation prefers to work in sectors that are considered prestigious. In this regard, motivation becomes crucial as it determines the younger generation's mindset in finding their interests (Astuti, Arso, & Wigati, 2019).

Regarding education level, 28 respondents are high school graduates (56.00%), followed by 11 elementary school graduates (22.00%), 10 junior high school graduates (2.00%), 1 bachelor (2.00%). These respondents are well-informed of the 12-Year Compulsory Education. According to Hasanah & Jabar (2017), 12-Year Compulsory Education increases the minimum number of high school graduates. However, some respondents who reached education up to elementary school might be due to lack of learning motivation. The number of respondents who reached a high level of education will undoubtedly affect the process of adaptation in fostering and developing technology in animal husbandry. The higher the level of education will lead the decision-making to be efficient in livestock activities. Utami et al. (2020), mentioned that the higher the education level, the higher the efficiency value and the impact of the farmers' ability on finding novelty in the use of production factors.

Group Dynamics

Group dynamics are the forces within the group that can determine group strengths in group behavior and the behavior of its members to achieve group goals effectively (Ibrahim, 2019). For more details, the Group dynamics are presented in Table 3.

Table 3. Percentage of Group Dynamics Level

Element	Value %				Category
	Anjasmoro Agrilestari	Tirtasari Tresno Gemilang	Total	Average	
Leadership	80.4	71.9	152.3	76.1	High
Group goals	87.5	70.0	157.5	78.8	High
Group Structure	76.3	64.3	140.6	70.3	Moderate
Function & Responsibilities	86.3	70.6	156.8	78.4	High
Group training & development	80.4	60.4	140.8	70.4	Moderate
Group Cohesiveness	87.1	69.0	156.1	78.1	High
Group Atmosphere	85.0	65.6	150.6	75.3	High
Group Pressure	84.6	66.7	151.3	75.6	High
Group Effectiveness	80.0	70.0	150.0	75.0	High

Source : Primary Data (processed), 2021

Leadership

Leadership is an essential element in group dynamics to successfully achieve common goals. According to the field results, the Anjasmoro Agrilestari farmer group includes a high category (80.4%), while the moderate category for Tirtasari Tresno Gemilang (71.9%). Meanwhile, the average score for the leadership element is categorized as "high," reaching 76.1%, which means that a leader has a significant impact. A leader who has good leadership skills will influence the development of the group performance to be more focused. It is in line with Bakhtiar et al. (2020) that leadership significantly affects group development to achieve predetermined goals and organized groups. Likewise, Haq, Nurlina, & Alim (2016) and Amalia (2019) mentioned that all group members have the equal opportunity to become a leader in a group potentially.

Leadership in the organization is determined by voting by each group member. This is done to accommodate all opinions among members about what kind of leader they want in leading the group. However, the pandemic era has made the culture of selecting group leaders hampered because of restrictions on social scale. Restrictions that

result in reduced group activities mean that leadership has no time limit during the pandemic. This impact does not rule out the possibility that leadership will continue to run well during the pandemic.

Group Goals

Group goals are goals or final results to be achieved, either in the form of an object or an achievement in the form of conditions that are in accordance with the wishes and satisfy all group members. Group goals are an important element in a group. It can function as the direction and final result to be achieved by the members based on Table 3. The Anjasmoro Agrilestari group has a higher category (87.5%) than the Tirtasari Tresno Gemintang (70.0%) as the moderate category. Thus, with an average value of 78.8%, the group goals are categorized as "high," meaning the significant members understand the group goals. According to Andarwati et al. (2017), understanding the group goals shows that the members consciously reflect the same goals as their personal goals. The high value of group goals indicates the members' strong interest in collectively carrying out the goals. The group goals can be a direction and consideration in rational decision-making regarding the types and number of activities, which are the criteria for the group's progress (Yani & Faridha, 2018).

Changes in the situation that are quite urgent with a short time during the pandemic will certainly affect the work program and goals that have been planned from the start. A clear understanding of group goals means that they know and are able to state and adapt to changing group goals (Andarwati, Guntoro, Haryadi, & Sulastri, 2017). If group members do not know about the goals of the group, then their participation in the livestock group does not know the direction of the group's goals and results in group activities being undirected and unproductive in the future.

Group Structure

Group structure can function as a pattern of the group members' relationship, which describes its position, role, and contribution within the group activities (Andarwati et al., 2017). The results of Table 3 show that the structure of group dynamics in Pujon District is considered decent and classified as "moderate," reaching the average value of 70.3%. The responsibilities among farmer groups in Pujon have been largely well-distributed. The group leader divides the tasks into members; however, the implementation is under the leader's command. In this accord, the leader hierarchically plays an important role. According to

Daniel et al. (2021), the leader makes a decision; therefore, members always rely on the leader as a companion in decision making.

The shift in interest of the younger generation as seen in the Age Table, makes the majority of the management occupied by members aged 31 years and over. Group administrators want renewal or regeneration of structural members of the organization. It is hoped that other members, especially young members, will be able to experience and increase members' skills and insights in technological developments and others.

Group Function and Responsibility

Task function is a set of tasks to be performed by each member of a group corresponds with their respective functions as well as position in the group structure. This element has to obey by all members as a means of responsibility to carry out the functions and duties in the group. This element's value is classified as high with an average of 78.4%, which means that the farmer group's functions and responsibilities in the Pujon District are well-regulated. Each member has the initiative in carrying out their duties and functions based on the group's goals without the leader's command and depending on other members. There are six categories of measuring task functions in a group, 1) the function of disseminating information, 2) satisfying members, 3) organizing coordination, 4) growing initiatives, 5) inviting participation, and 6) explaining (Andarwati et al., 2017).

Group Training and Development

Group training and development is one indicator of group dynamics that becomes a benchmark for group development starting from member participation, group activities, group facilities, social control or supervision and the socialization process for recruiting new members (Andarwati, Guntoro, Haryadi, & Sulastris, 2017). This component is a means to maintain the sustainability of the group's life. The dairy farmer's group training and development in Pujon District are "moderate," reaching 70.4%. It means that there have been specific activities to maintain the group's life, yet the livestock group members are passive or indifferent to implement. Bakhtiar et al. (2022) stated that those who acquire moderate category are less active in carrying group's tasks. Maximizing group coaching and development requires collaboration between members and external parties to bring up innovations and group openness (Kharis & Mutrofin, 2019).

The dairy cattle group in the Pujon sub-district is aggressively developing and maximizing forage forage preservation technology in order to overcome the scarcity of forage feed in the dry season. In the era

of the pandemic, training and group development activities have changed. Changes made such as online training and sending group member representatives to attend training activities carried out by the government or certain organizations.

Group Cohesiveness

Group cohesiveness determines whether the group succeeds or not. It describes how strong the group survives facing the pressure from both inside and outside the group. The average value of group cohesiveness is high-categorized, reaching 78.1%, meaning that the farmer group in Pujon District has a sense of mutual cooperation and a high attitude of maintaining the group coping with problems such as different opinions within group activities. As mentioned by Kelbunan et al. (2018), a high sense of group cohesiveness creates a close interest and attachment by all members to helping each other achieve the group's shared goals. On the other hand, Bakhtiar et al. (2022) mentioned that group cohesiveness classified as "moderate" does not determine the group dynamics, perceived that the lack of interest in helping each other among members.

Group Atmosphere

The group atmosphere describes the members' relationship within the group, ranging from their attitudes, morals, and apathy. This element significantly affects the contentment and tranquility of the group; thus, each member must be able to keep a peaceful atmosphere and high solidarity. For instance, the group farmer in Pujon District, reaching the average value of 75.3% direct high category, indicates that they have succeeded in creating a good atmosphere in the group. According to Kelbunan et al. (2018), a group is classified as a "good group" if several factors include democracy, environment, morals, and brotherhood growth. Bakhtiar et al. (2020) stated that an attractive group atmosphere comes from the attitude of solidarity by all members. The high value of group atmosphere in Pujon District comes from the cohesiveness and contentment created by all members.

Group Pressure

Group pressure purposely aims to provide challenges and train group members to solve a problem. It can come from both in and outside parties in unilateral problems or directed at one party only. The results of this research find the average value of the group pressure in Pujon District is high category, reaching 75.6%, which proves that the majority of the farmer group have been trained in dealing with problems and

solving them with mutual cooperation. According to Lanuhu et al. (2020), group pressure can strengthen the relationship among members, develop ideas, and improve the relations in the social environment.

The Covid-19 pandemic has become an external pressure in the running of livestock group activities in Pujon District. This pressure is certainly a problem experienced by every member of the livestock. Problems that arise such as the economy, less than optimal group activities and the lack of counseling held by the government during the pandemic. However, this pressure has become an impetus for livestock groups in Pujon District to create activities that are in accordance with existing conditions, such as counseling on feed preservation technology represented by several members.

Group Effectiveness

Group effectiveness can be regarded as an assessment to measure whether the group succeeded in carrying out its agendas and achieving the goals. Therefore, this research shows that the average value of group effectiveness in Pujon District reaches 75.0%, categorized as "high." It means that each member has high efforts to improve and carry out the group's tasks and increase the group productivity optimally. As an active member carrying out group activities, such as counseling or weekly meetings, makes group goals easier to achieve. Moreover, group effectiveness, part of group dynamics, is closely influenced by leadership factors, in which good leadership will certainly improve group effectiveness (Rangga, Effendi, Listiana, & Pranata, 2019). According to Andarwati et al. (2017), the high value of group effectiveness creates pride and satisfaction with their achieved goals.

CONCLUSION AND SUGGESTION

Conclusion

In conclusion, most elements of the dairy farmer's group dynamics in Pujon District are categorized as "high." There are only two elements in the moderate category, group structure, and group training and development. It is indicated by the pride and satisfaction of group members in achieving the common goals. Also, it is supported by the group function and responsibilities that run positively. All members actively share their ideas to advance the group and support each other in achieving their common goals. Furthermore, the "new normal" adaptation policy considerably restricts group members from attending the group coaching activities and routine meetings, which causes group training and development to be a "moderate" category.

Suggestion

This research suggests:

1. The dairy farmer's group dynamics in Pujon District must be maintained, particularly the structural elements and the group training and development.
2. A simple organizational structure will make it the members easier to understand their positional functions and responsibilities.
3. Training in human resources (HR) in the administrative field is necessary to hold for the sake of helping ease the members determining their directions and plans of activities.
4. A group training and development, which includes collaboration with outside parties, is needed to maximize to bring up innovations.
5. The needs of plan activities conducted online should be.

REFERENCES

- Amalia, A. A. (2019). Analisis Hubungan Dinamika Kelompok dengan Efektivitas Kelompok Tani Tranggulasi di Desa Batur, Kecamatan Getasan, Kabupaten Semarang. *AGRISAINTEFIKA: Jurnal Ilmu-Ilmu Pertanian*, 2(2), 94-100. doi:10.32585/ags.v2i2.258
- Andarwati, S., Guntoro, B., Haryadi, F. T., & Sulastris, E. (2017). Dinamika Kelompok Peternak Sapi Potong Binaan Universitas Gadjah Mada di Provinsi Daerah Istimewa Yogyakarta. *Sains Peternakan*, 10(1), 39-46. doi:10.20961/sainspet.v10i1.4838
- Astuti, S. I., Arso, S. P., & Wigati, P. A. (2019). Analisis Standar Pelayanan Minimal Pada Instalasi Rawat Jalan di RSUD Kota Semarang. *Jurnal Kesehatan Masyarakat*, 4(2), 114-119. doi: doi: 10.14710/jkm.v3i1.11129
- Bakhtiar, A., Mahmud, A., Agustina, Y., Novanda, R. R., Thus, O. O. A. H., Fibriyanti, D., & Maisaroh, S. (2022). The Dynamics of Cow Farmer Group towards the Development of Feed Canning Technology. *SOCA: Jurnal Sosial Ekonomi Pertanian*, 16(1), 759-771
- Bakhtiar, A., Pulung Sudibyo, R., Indriani, I., & Muhammad Shodiq, W. (2020). The Dynamics of Horticultural Farmers Groups in Malang Regency and Batu City. *SOCA: Jurnal Sosial, Ekonomi Pertanian*, 14(3), 473-481. doi:10.24843/soca.2020.v14.i03.p09
- Badan Pusat Statistik [BPS]. (2017). Statistik Indonesia 2017. Jakarta. Retrieved from [https://jatim.bps.go.id/statictable/2019/10/11/877 produksi-susu-perah-menurut-kabupaten-kota-di-provinsi-jawa-timur-kg-2017.html](https://jatim.bps.go.id/statictable/2019/10/11/877%20produksi-susu-perah-menurut-kabupaten-kota-di-provinsi-jawa-timur-kg-2017.html)

- Badan Pusat Statistik [BPS]. (2020). Statistik Indonesia 2017. Jakarta. Retrieved from <https://www.bps.go.id/indicator/24/469/1/populasi-sapi-potong--menurut-provinsi.html>
- Daniel, R., Maad, F., & Wibaningwati, D. B. (2021). Dinamika Kelompok Tani Padi Sawah (*Oryza sativa* L.) di Kecamatan Rumpin, Kabupaten Bogor. *Agrisintech (Journal of Agribusiness and Agrotechnology)*, 2(1), 9-20. doi:10.31938/agrisintech.v2i1.311
- Ervina, D., Setiadi, A., & Ekowati, T. (2019). Analisis Faktor-Faktor Yang Mempengaruhi Pendapatan Usaha Ternak Sapi Perah Kelompok Tani Ternak Rejeki Lumintu di Kelurahan Sumurrejo Kecamatan Gunungpati Semarang. *SOCA: Jurnal Sosial Ekonomi Pertanian*, 13(2), 187-200. doi:10.24843/soca.2019.v13.i02.p04
- Haq, I. M. N., Nurlina, L., & Alim, S. (2016). Peran Kepemimpinan Ketua Kelompok Peternak Kambing Perah terhadap Keberlanjutan Usaha Anggotanya. *Jurnal Sosial Bisnis Peternakan*, 5(4), 1-11. Retrieved from <http://jurnal.unpad.ac.id/ejournal/article/view/10158/4590>
- Hariri, A., Dewi Andaru, S., & Suliyanto, A. (2016). Pengembangan Kelompok Tani Yang Dinamis dalam Pengembangan Agribisnis Hortikultura di Kota Batu. *Agriekstensia*, 16(2), 269-275. doi:10.34145/agriekstensia.v16i2.5
- Hasanah, Y. M., & Jabar, C. S. A. (2017). Evaluasi Program Wajib Belajar 12 Tahun Pemerintah Daerah Kota Yogyakarta. *Jurnal Akuntabilitas Manajemen Pendidikan*, 5(2), 228-239. doi:10.21831/amp.v5i2.8546
- Ibrahim, J. T. (2019). *Sosiologi Pedesaan*. In Universitas Muhammadiyah Malang (pp. 1-185)
- Kelbulan, E., Tambas, J. S., & Parajouw, O. (2018). Dinamika Kelompok Tani Kalelon di Desa Kauneran Kecamatan Sonder. *Agri-Sosioekonomi*, 14(3), 55-65. doi:10.35791/agrsosek.14.3.2018.21534
- Kharis, A., & Mutrofin, M. (2019). Pemberdayaan Kelompok Ternak Kambing "Satwa Makmur" Melalui Program CSR PT. PLN (Persero) di Desa Tubanan. *Jurnal Pemberdayaan Masyarakat: Media Pemikiran Dan Dakwah Pembangunan*, 3(1), 97-118. doi:10.14421/jpm.2019.031-05
- Lanuhu, N., Jamil, H., Busthanul, N., Demmallino, E. B., & Melinda, I. (2020). Leadership Relations of the Rice Farmers' Head Group with Group Dynamics in Tugondeng Village. *IOP Conference Series: Earth and Environmental Science*, 486(1), 1-4. doi:10.1088/1755-1315/486/1/012038
- Lusiyanti, L. (2020). Kesenjangan Penghasilan Menurut Gender di Indonesia. *Jurnal Litbang Sukowati : Media Penelitian Dan Pengembangan*, 4(1), 123-138. doi:10.32630/sukowati.v4i1.214

- Mahmud, A., Busono, W., Surjowardojo, P., & Tribudi, Y. A. (2020). Produksi Susu Sapi Perah Friesian Holstein (Fh) pada Periode Laktasi yang Berbeda. *Angewandte Chemie International Edition*, 6(11), 79–84
- Malau, L. R. E., Asmarantaka, R. W., & Suharno, S. (2021). Keragaan Koperasi Susu dan Pendapatan Usahaternak Sapi Perah: Sebuah Studi di KPSBU Lembang. *Jambura Agribusiness Journal*, 3(1), 15–27. doi:10.37046/jaj.v3i1.10370
- Muhyidin, M., Arman, C., & Zaenuri, L. A. (2019). Analisis Tingkat Pengetahuan, Sikap, dan Motivasi Peternak Sapi dalam Adopsi Teknologi Inseminasi Buatan di Sumbawa Barat. *Jurnal Ilmu dan Teknologi Peternakan Tropis*, 6(3), 304–312. doi:10.33772/jitro.v6i3.6529
- Nasution, L. M. (2017). Statistik Deskriptif. *Jurnal Hikmah*, 14(1), 49–55
- Noviana, R., Fariyanti, A., & Winandi, R. (2021). Preferensi Risiko Peternak Sapi Perah Di Kecamatan Cisarua Kabupaten Bogor Provinsi Jawa Barat Risk Preference of Dairy Farmers in Cisarua District Bogor Regency West Java Province. *Agriseip*, 20(1), 1–12. doi:10.31186/jagrisep.20.1.1-12
- Nuryanti, S., & Swastika, D. K. S. (2016). Peran Kelompok Tani dalam Penerapan Teknologi Pertanian. *Forum Penelitian Agro Ekonomi*, 29(2), 115–128. doi:10.21082/fae.v29n2.2011.115-128
- Rangga, K. K., Effendi, I., Listiana, I., & Pranata, D. (2019). Hubungan Kepemimpinan Ketua Kelompok Dengan Keefektifan Kelompok Tani Padi Sawah di Kecamatan Sukoharjo Kabupaten Pringsewu. *Jurnal Pengkajian dan Pengembangan Teknologi Pangan*, 22(2), 131–141
- Rosyidi, H., Ibrahim, J. T., Sutawi, S., Anne, O., & Rachmawati, D. (2021). Relationship Of Group Dynamics and Fishermen Independence in Fisheries Agribusiness Attaining Maximum Sustainable Yield. *E3S Web of Conferences*, 226. doi:10.1051/e3sconf/202122600019
- Rusdiana, S., & Soeharsono, S. (2019). Upaya Pencapaian Daya Saing Usaha Sapi Perah Melalui Kebijakan Pemerintah dan Peningkatan Pendapatan Peternak. *Agriekonomika*, 8(1), 36–50. doi:10.21107/agriekonomika.v8i1.5111
- Statistik, badan pusat. (2020). *Peternakan Dalam Angka 2020*. (Subdirektorat Statistik Peternakan, Ed.) (katalog:53). jakarta: © BPS-RI/BPS-Statistics Indonesia
- Utami, A. W., Salman, L. B., & Firman, A. (2020). Analisis Efisiensi Teknis pada Usaha Sapi Perah di Kecamatan Tanjungsari. *Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, 6(1), 254–264. doi:10.25157/ma.v6i1.3087
- Wildan Jadmiko, M., Ayu Harsita, P., Widodo, N., & Setyo Poerwoko, dan M. (2019). Sumber Daya Internal Peternak Sapi Perah dan Pengaruhnya

terhadap Dinamika Kelompok dan Konteks Kerentanan Internal
Maret, 7(1), 192-200

Yani, D. E., & Faridha, I. (2018). Analisis Dinamika Kelompok Sentra Penyuluhan Kehutanan Dan Pedesaan Mangga Delima Taman Nasional Karimunjawa. *JSEP (Journal of Social and Agricultural Economics)*, 10(3), 58-67. doi:10.19184/jsep.v10i3.7009