

Integrating SAFA Framework for Optimizing and Strengthening Sustainable Indonesian Dairy Cooperative

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ABSTRAK

The sustainability of dairy cooperatives in Indonesia faces complex structural challenges due to dependence on a single commodity, limited institutional capacity, and the lack of a comprehensive sustainability evaluation framework in multi-stakeholder partnership practices. The research uses an exploratory mixed methods approach with an explanatory sequential design. Data were collected through in-depth interviews, focus group discussions, field observation and document analysis of two dairy cooperatives with different KMP typologies, involving cooperative management, dairy farmers, and recognised expertise stakeholders in dairy industry. The results of the study show that KMP type I tends to be transactional and prescriptive with an inhibited sustainability impact that rise to structural dependence, especially on the dimension of economic resilience. However, both types of KMP have similar vulnerabilities in terms of occupational health and safety and animal welfare. This study concludes that the integration of the SAFA framework is able to function as an analytical and strategic instrument to map, evaluate, and strengthen the sustainability of dairy cooperatives, while making a practical contribution to improving the design of multi-stakeholder partnerships oriented towards the Sustainable Development Goals.

INTRODUCTION

The sustainability of the global food system is currently a strategic issue that has received widespread attention as environmental pressures, economic instability, and social inequality in the agricultural value chain increase. The dairy farming sector, as an important part of the food system, faces serious challenges in the form of environmental degradation, price volatility, and inequality in the bargaining position of small-scale producers in market partnerships (FAO, 2021). In many developing countries, dairy cooperatives are seen as the main institutional instruments to strengthen economic inclusion and social sustainability, but their effectiveness is highly dependent on the quality of governance and partnership patterns implemented (Bijman et al., 2020). Therefore, a comprehensive and measurable sustainability approach is an urgent need in the management of dairy cooperatives.

In the Indonesian context, dairy cooperatives play a central role in maintaining the national milk supply while supporting the livelihoods of smallholder farmers. However, the production structure that still relies on a single commodity, low business diversification, and high dependence on the dairy processing industry cause structural economic vulnerability (Daryanto & Hafidhuddin, 2021). This condition is exacerbated by the limited institutional capacity of cooperatives in managing risks, innovation, and business transformation in a sustainable manner. A number of studies show that without proper institutional interventions, cooperatives tend to get caught up in transactional partnership patterns that weaken long-term resilience (Ruben et al., 2021).

Multi-Stakeholder Partnerships (KMPs) are promoted globally as a collaborative mechanism to encourage the achievement of the Sustainable Development Goals (SDGs) through the integration of public, private, and community actors (Selsky & Parker, 2020). In the agriculture and livestock sector, Multi-Stakeholder Partnerships are believed to be able to strengthen knowledge transfer, market access, and capacity building for smallholder producers. However, the effectiveness of Multi-Stakeholder Partnerships varies greatly depending on the institutional design, distribution of power, and adopted sustainability orientation (Dentoni et al., 2022). This emphasizes the importance of evaluation instruments that are able to distinguish between partnerships that are transactional and those that are transformative.

The Sustainability Assessment of Food and Agriculture system (SAFA) framework was developed by the Food and Agriculture Organization (FAO) as a holistic evaluation tool that covers governance, economic, environmental, and social dimensions in food and agricultural systems. A number of international studies have shown that SAFA is effective in mapping the sustainability performance of agribusiness organizations and the food value chain in a multidimensional manner (Schader et al., 2020). However, the application of the SAFA in the context of dairy cooperatives, especially in developing countries, is still relatively limited. In addition, studies that integrate SAFA with Multi-Stakeholder Partnership analysis are comparatively rare in the up-to-date literature.

The main research gap in this study lies in the lack of empirical studies that examine how the Multi-Stakeholder Partnership (KMP) typology affects the sustainability profile of dairy farmer cooperatives through a standardized and comprehensive assessment approach. Previous studies have tended to focus on economic or social aspects partially, without linking them to an integrated sustainability evaluation framework (Meemken & Bellemare, 2020). In addition, research on dairy cooperatives in Indonesia is generally descriptive and has not explored the institutional dynamics of partnerships in depth. Thus, an analytical approach is needed that is able to bridge the gap between partnership practices and the achievement of cooperative sustainability systemically.

Based on the background and gaps of the research, this study aims to analyze the characteristics of Multi-Stakeholder Partnership (KMP) practices in dairy cooperatives in Indonesia and its impact on the sustainability of dairy cooperatives through the integration of the SAFA framework. In particular, this study examines the differences in sustainability profiles between two different Multi-Stakeholder Partnership typologies, with an emphasis on the dimensions of economic resilience, governance, social well-being, and environmental integrity. This approach is expected to provide a deeper understanding of the relationship between partnership design and cooperative sustainability performance. Thus, the purpose of the research is directed at strengthening the analytical base for the sustainable development of dairy cooperatives.

This research makes a theoretical contribution by expanding the application of the Sustainability Assessment of Food and Agriculture (SAFA) framework in the study of institutional economics and agribusiness partnerships, especially in the context of dairy cooperatives in developing countries. In practical terms, the findings of this study provide an empirical basis for policy makers, cooperative managers, and industry partners in designing more transformative and sustainability-oriented Multi-Stakeholder Partnerships (KMPs). In addition, this research supports efforts to achieve the Sustainable Development Goals (SDGs) through strengthening cooperative institutions as key actors in the national food system. Thus, this study contributes to solving real problems in the field as well as the development of development and sustainability economics.

LITERATURE REVIEW

Sustainability of Dairy Farmer Cooperatives in the Modern Food System

Dairy farming cooperatives are positioned as key institutions in strengthening the sustainability of food systems, especially in the context of smallholder-based production. Recent literature shows that cooperatives are able to improve production efficiency, income stability, and access to inputs and markets if supported by adaptive and inclusive governance (Grashuis & Su, 2020). However, studies have also confirmed that many livestock cooperatives still face limitations in integrating sustainability principles as a whole, especially in environmental and social aspects. This puts cooperatives in a vulnerable position to market shocks and changes in global food policy (Forney & Stock, 2021).

Economic Resilience and Business Diversification in Dairy Cooperatives

Economic resilience is a crucial dimension in the sustainability of dairy farming cooperatives, especially in the midst of fluctuations in milk prices and dependence on single buyers. Research shows that cooperatives that develop business diversification, such as value-added product processing and livestock support services, tend to have better economic stability (Candemir et al., 2021). In contrast, cooperatives that operate in a narrow, prescriptive business structure are more susceptible to structural dependencies. Therefore, the literature emphasizes the importance of economic strategies that go beyond the mere marketing function of milk to strengthen the long-term sustainability of cooperatives.

Multi-Stakeholder Partnerships in the Sustainable Livestock Sector

Multi-Stakeholder Partnerships are seen as an effective collaborative approach in addressing the complexity of sustainability challenges in the livestock sector. International studies show that collaboration between cooperatives, the private sector, government, and supporting institutions can increase innovation, collective learning, as well as the adaptive capacity of farmers (Kilelu et al., 2021). However, not all Multi-Stakeholder Partnerships produce equal impact. Some studies have identified that partnerships that are asymmetric and transaction-oriented tend to reinforce dependency relationships, rather than institutional transformations (Bitzer & Hamann, 2022).

Typology of Partnerships and Dynamics of Institutional Power

The current literature highlights the importance of understanding the typology of Multi-Stakeholder Partnerships in assessing their contribution to sustainability. Transactional partnerships are generally characterized by the dominance of certain actors in decision-making and control of resources, which can limit cooperative learning spaces (Bäckstrand et al., 2021). Instead, transformative partnerships emphasize a more balanced division of roles, local capacity building, and participatory decision-making processes. This power dynamic is a determining factor in the success or failure of partnerships in encouraging structural changes at the cooperative level.

Sustainability Assessment of Food and Agriculture Framework in Sustainability Assessment

The Sustainability Assessment of Food and Agriculture (SAFA) framework was developed to answer the need for a holistic and cross-dimensional sustainability evaluation tool. Empirical research shows that this framework is able to systematically identify trade-offs between economic, social, environmental, and governance dimensions (Zimon et al., 2020). In the context of agribusiness, the Sustainability Assessment of Food and Agriculture is used to evaluate the sustainability performance of the organization and the value chain comparatively. However, the application of this framework to dairy cooperatives is still relatively limited, especially in linking it to institutional partnership patterns.

Integration of Sustainability Assessment and Institutional Analysis

Recent studies have emphasized that sustainability assessments will be more meaningful if integrated with institutional analysis and stakeholder relations. This approach allows for a more comprehensive understanding of how partnership structures affect an organization's sustainability achievement (Gaitán-Cremaschi et al., 2023). Without such integration, sustainability assessments risk becoming a technocratic instrument that is detached from social and economic dynamics on the ground. Therefore, the literature supports the use of sustainability evaluation frameworks as a strategic tool, rather than just a measuring tool.

METHODOLOGY

Research Approach and Design

This study uses a descriptive exploratory mixed methods approach with a case study design, which aims to gain a comprehensive understanding of the dynamics of Multi-Stakeholder Partnerships and their implications for the sustainability of dairy cooperatives. The qualitative approach is used as the main framework to explore meaning, processes, and institutional interactions in depth, while the quantitative approach plays a supporting role in processing and visualizing numerical data based on sustainability indicators (Creswell & Plano Clark, 2021). The research design used is a sequential exploratory design, where a qualitative analysis is carried out first and the results are constructed into a quantitative stage to strengthen the interpretation of the findings (Busetto et al., 2020). This approach was chosen because it is appropriate for sustainability research involving complex and contextual socio-economic phenomena.

Case Study Approach and Research Location

The case study approach was applied to explore the impact of the free variable in the form of Multi-Stakeholder Partnership on the bound variable, namely the sustainability of dairy cooperatives. The object of the study includes two dairy farmer cooperatives with different characteristics and typologies of partnerships, located in West Java and West Sumatra Provinces. The selection of locations was purposively carried out by considering the variety of agro-industrial models, the role of cooperatives in the milk supply chain, and the existence of a large-scale dairy processing industry as the main partner. This approach allows for comparative analysis between cases to identify structurally distinct patterns of sustainability and partnership dynamics (Yin, 2020).

Population and Sampling Techniques

The research population includes all stakeholders who are directly involved in dairy cooperative partnership activities. The sampling technique used stratified purposive sampling with a total of 22 recognised expertise stakeholders in dairy industry, who were selected based on the criteria of operational relevance, experience, and strategic role in the partnership system. The resource persons consisted of cooperative members, cooperative administrators, representatives of the private sector, government agencies, as

well as non-governmental organizations and reputable dairy associations. All resource persons have at least five years of experience in the field of dairy farming or cooperatives, so they are considered able to provide valid and in-depth information. This sampling approach aims to obtain data coverage vertically and horizontally to increase the validity of empirical representations (Palinkas et al., 2020).

Data Collection Techniques

Data collection techniques include semi-structured in-depth interviews, selective field observations, and document analysis. Interviews were conducted face-to-face and online using a semi-structured list of questions compiled with reference to the Sustainability Assessment of Food and Agriculture framework. The interview instrument was modified by the researcher to fit the local context and materiality principles, without omitting the substance of the sustainability indicators. Secondary data were obtained from scientific publications, policy reports, government regulations, and institutional documents of cooperatives and partners. The use of these various data sources allows the application of triangulation to increase the credibility of research findings (Flick, 2022).

Sustainability Research and Operationalization Variables

The research variables included Multi-Stakeholder Partnerships as independent variables and cooperative sustainability as dependent variables. The operationalization of sustainability variables refers to the four main dimensions of the Sustainability Assessment of Food and Agriculture, namely good governance, environmental integrity, economic resilience, and social welfare. Each dimension is broken down into indicators and sub-indicators that reflect the empirical practices of cooperatives and partnerships. This approach allows for multidimensional and standardized sustainability mapping, thus the research results can be systematically compared between study objects (Schader et al., 2020).

Qualitative Data Analysis

Data analysis is carried out with the content analysis approach as the main method for qualitative data, which includes the process of coding, thematic grouping, and interpretation of meaning based on the frequency and context of the dominant keywords. This technique is used to identify explicit and implicit patterns in the speaker's narrative that represent partnership dynamics and their impact on sustainability. The analysis was carried out inductively until data saturation was achieved, with the support of source triangulation to ensure the consistency of the findings (Silverman, 2021). Irrelevant data are selected and reduced before further thematic interpretation is carried out.

Quantitative Analysis and Integration of the SAFA Framework

The qualitative data that has been categorized is then constructed into a quantitative analysis using the Sustainability Assessment of Food and Agriculture baseline scoring technique. Each indicator is scored based on the

Food and Agriculture Organization's official guidelines using a five-level scale. The most dominant score is often determined as a representation of the empirical condition of the indicator in question. All scores are then fed into the SAFA Tool software version 2.4.1 to produce radar chart visualizations and bar charts. These quantification results are juxtaposed with qualitative findings as the basis for integrative interpretation and the drawing of final conclusions

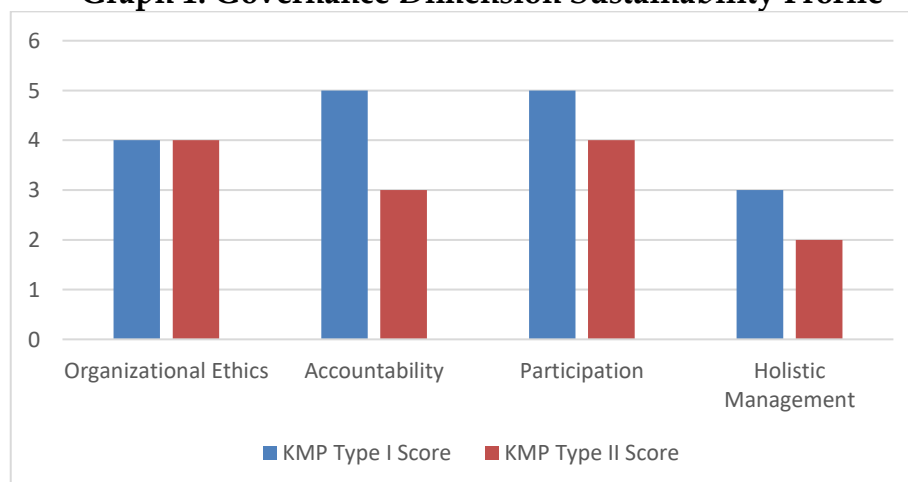
RESULT & DISCUSSION

Based on the results of qualitative and quantitative data processing using SAFA software version 2.4.1. The presentation was carried out systematically following the flow of the SAFA framework which includes the Governance Dimension, the Environmental Integrity Dimension, the Economic Resilience Dimension, and the Social Welfare Dimension. Each dimension is analyzed through indicators and sub-indicators that represent the practices of Multi-Stakeholder Partnerships in each of the research objects. This approach aims to produce a complete, standardized, and comparative overview of the sustainability profile between KMP Type I and KMP Type II.

1. Sustainability Profile of Governance Dimension

The findings on the governance dimension show a clear characteristic difference between the two types of Multi-Stakeholder Partnerships. KMP Type I shows strength in the aspects of administrative accountability and member participation, but it is still procedural and has not been strategically integrated with the sustainability agenda. In contrast, KMP Type II exhibits more reflective and visionary governance, although it still faces limitations in comprehensive sustainability management. This difference shows that the quality of governance is greatly influenced by the level of maturity of the organization and the orientation of the partnership that is carried out.

Graph 1. Governance Dimension Sustainability Profile



Graph 1 shows that KMP Type I has the highest scores on accountability and participation indicators, which indicates strength in reporting, auditing, and member engagement mechanisms. However, a moderate score on comprehensive management indicates that the sustainability aspect is not yet fully integrated in organizational planning. In KMP Type II, although

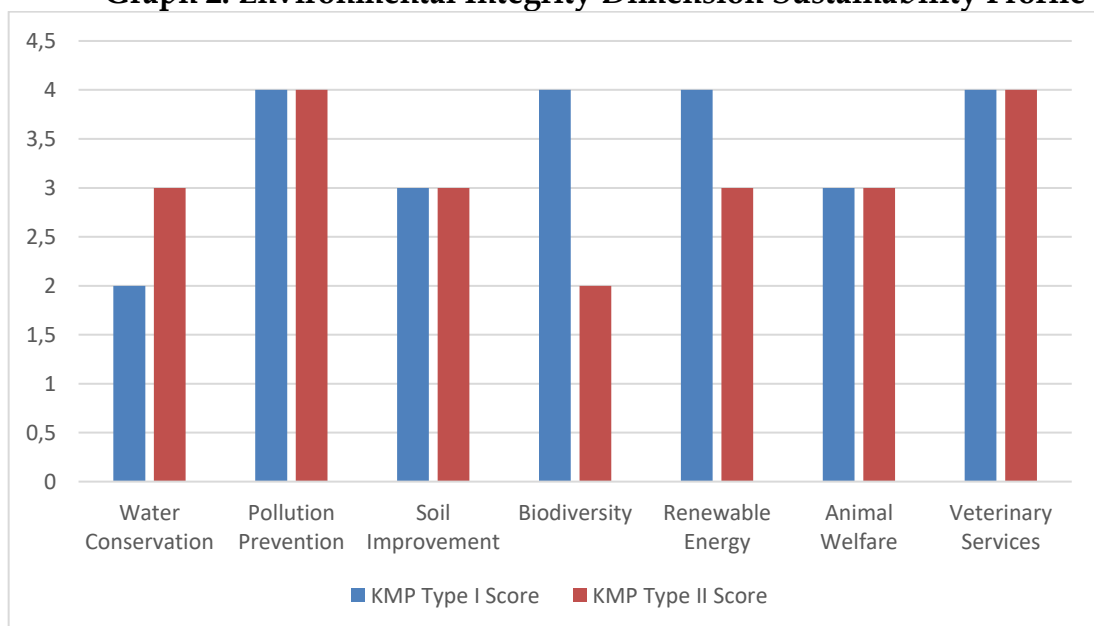
organizational participation and ethics are in the good category, the limited score on comprehensive management indicates that sustainability is still positioned as a long-term agenda that has not been institutionalized systemically.

The results of the interviews show that in KMP Type I, governance practices tend to be understood as the fulfillment of administrative obligations to industry partners. Cooperative management interprets partnership as an operational relationship that requires compliance with external standards. On the other hand, in KMP Type II, cooperative administrators and members began to view governance as a tool to strengthen bargaining positions, organizational learning, and business network expansion, although limited human resource capacity is still the main obstacle. Thus, the governance dimension shows that KMP Type I is still in a transactional business as usual pattern, while KMP Type II is starting to move towards more adaptive and transformative governance, although it is not yet fully integrated with the principles of holistic sustainability.

2. Sustainability Profile of Environmental Integrity Dimension

Findings on the environmental integrity dimension show that the two KMP types have relatively similar achievement patterns with less contrasting variations. Environmental practices tend to be partial and oriented towards direct economic benefits, such as the treatment of waste into fertilizer or biogas. Indicators that require long-term planning, such as water conservation and sustainable land management, are still in the risk category in both study objects.

Graph 2. Environmental Integrity Dimension Sustainability Profile



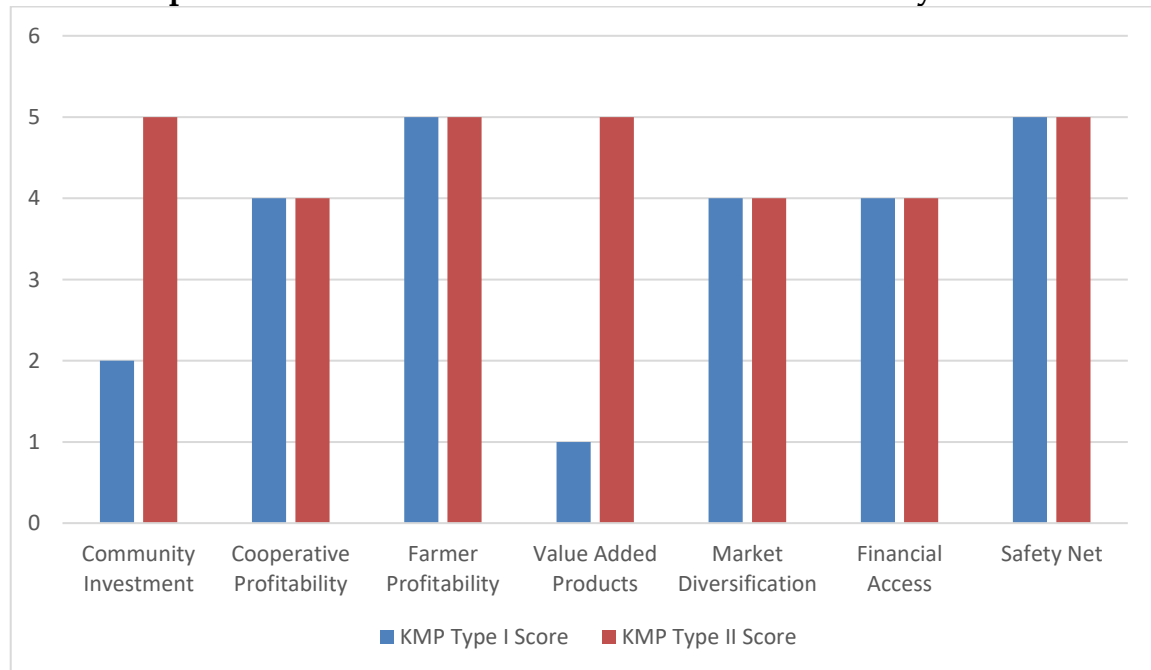
Graph 2 shows that the indicators of pollution prevention and animal health services are relatively better than other indicators. However, low scores on water conservation and animal welfare indicate a gap between technical practices and comprehensive ecological sustainability principles. This indicates that the environmental dimension has not yet become a strategic priority in the design of Multi-Stakeholder Partnerships.

Qualitatively, farmers and cooperative administrators reveal that environmental practices are carried out to the extent that they have a direct impact on cost efficiency or increased income. Water conservation and animal welfare are not perceived as an urgent need, but rather as a long-term issue that is beyond the capacity of cooperatives. The environmental integrity dimension in both types of KMP is still reactive and has not been systemically integrated, so environmental sustainability has not yet become the main foundation in partnership practices.

3. Sustainability Profile of Economic Resilience Dimension

The dimension of economic resilience is the dimension with the most contrasting difference between the two types of KMP. KMP Type I shows high structural vulnerability due to dependence on one commodity and one market segment. In contrast, KMP Type II has a more solid economic foundation through brand activation, product diversification, market expansion, and strengthening of social investment.

Graph 3. Economic Resilience Dimension Sustainability Profile

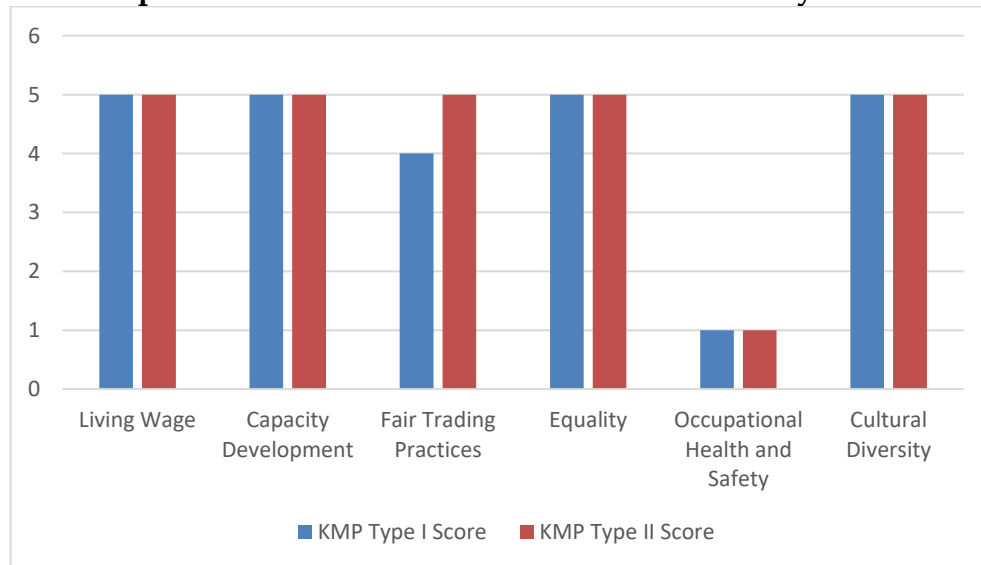


Graph 3 shows that the main weakness of KMP Type I lies in the value-added product indicator, which is in the unacceptable category. On the other hand, KMP Type II shows a relatively optimal and balanced economic resilience profile in almost all indicators. The interview revealed that in KMP Type I, the partnership is focused on fulfilling fresh milk supply contracts, so that cooperatives do not have incentives to develop business diversification. In KMP Type II, partnerships are interpreted as shared learning spaces that encourage product innovation, capacity building, and business independence. The economic resilience dimension confirms that the transactional character of Type I KMPs results in structural dependence, while the transformative character of Type II KMPs contributes to strengthening long-term economic sustainability.

4. Sustainability Profile of Social Welfare Dimension

The social welfare dimension shows relatively optimal achievements in both types of KMP, especially in the indicators of decent living, capacity development, and business fairness. However, both types of KMPs have the same and significant vulnerabilities to occupational health and safety indicators.

Graph 4. Social Welfare Dimension Sustainability Profile



Graph 4 shows that occupational health and safety indicators are in the unacceptable category for both types of KMP, which indicates the absence of a formal protection system for farmers and workers. Qualitatively, occupational health and safety are perceived as the individual responsibility of farmers, not as part of the institutional responsibility of cooperatives or partnerships. This perception explains why the indicator has not been systematically touched. The social welfare dimension emphasizes that although the social capital of cooperatives is strong, KMP practices are not fully responsive to occupational health and safety risks, thus becoming a critical point of social sustainability in both types of partnerships.

DISCUSSION

The results of this study show that the characteristics of Multi-Stakeholder Partnership practices have a significant influence on the direction and quality of sustainability of dairy farming cooperatives. The empirical findings clearly distinguish between type I KMP which is transactional-prescriptive and type II KMP which is transformative based on capacity building. This difference emphasizes that partnership is not just a mechanism of economic coordination, but an institutional construction that forms a pattern of power relations, benefit distribution, and sustainability orientation. In the context of development partnership theory, transactional partnerships tend to operate on a logic of short-term efficiency, while transformative partnerships move on a logic of long-term value creation (Selsky & Parker, 2020). Thus, the findings of this study enrich the understanding that the quality of KMP design determines whether cooperatives become resilient entities or are trapped in structural dependence.

In the governance dimension, SAFA results show that KMP type I scores high on accountability and participation indicators, but low on holistic sustainability management. This condition indicates strong governance that is administratively strong but strategically weak. This phenomenon is in line with the view that many cooperative organizations in developing countries implement compliance-based governance, rather than organizational learning and sustainability (Bijman et al., 2020). In contrast, KMP type II shows more reflective governance, although it is not yet fully institutionalized. The important significance of these findings is that effective governance is not measured by transparency and participation alone, but by the extent to which it is able to systemically integrate economic, social, and environmental dimensions in decision-making.

The environmental integrity dimension of both types of KMP showed relatively moderate achievements with similar vulnerabilities, especially in the indicators of water conservation and animal welfare. These findings show that environmental aspects are not yet a strategic priority in partnership practice, but rather are treated as additional activities of a technical nature. This pattern is consistent with global research findings that state that environmental sustainability in the smallholder livestock sector often lags behind the economic and social dimensions (Herrero et al., 2021). Limited technical capacity, traditional livestock culture, and lack of environmental incentives are the main explanatory factors for these conditions. Therefore, the results of this study confirm that without the integration of environmental indicators into contracts and partnership mechanisms, environmental sustainability practices will remain partial and vulnerable.

The dimension of economic resilience is the dimension that most distinguishes the sustainability performance between the two types of KMP. KMP type I shows high vulnerability due to dependence on a single commodity and a single market segment, which is reflected in the very low score on the value-added product indicator. In contrast, type II KMPs exhibit a stronger economic resilience profile through product diversification, social investment, and market network expansion. These findings support the theory of economic resilience that emphasizes the importance of diversification and innovation as structural risk mitigation strategies (Meuwissen et al., 2021). An important consequence of these findings is that partnerships that only guarantee market access without encouraging new value creation actually magnify the long-term risks for the cooperative and its members.

In the social welfare dimension, the two types of KMP show relatively optimal achievements in the indicators of decent living, capacity development, and equality. However, occupational health and safety indicators emerged as the same weak points in both study objects. This condition reflects the existence of an institutional blind spot, where health and safety risks are perceived as individual responsibilities, rather than the collective responsibility of organizations and partnerships. A similar phenomenon has also been found in international studies that highlight the weak integration of occupational safety in small-scale agricultural cooperatives (Garrido et al., 2022). These findings have

important implications that social sustainability cannot be achieved in its entirety without the recognition and management of occupational risks as part of partnership governance.

Analysis of KMP's contribution to the Sustainable Development Goals shows that both types of KMPs contribute significantly to poverty alleviation, food security, gender equality, and global partnership goals. However, the contribution is still uneven, especially in the areas of responsible consumption and production and decent work. KMP type I shows limited contribution to inclusive economic growth due to dependence on the contractual supply-absorption model. On the other hand, KMP type II is better able to articulate contributions across development goals through an integrative and community-based approach. This reinforces the view that transformative partnerships have a greater capacity to generate systemic development impacts (UNDP, 2022).

Although this study has successfully demonstrated the compatibility of the Sustainability Assessment of Food and Agriculture framework in analyzing KMP practices, there are several limitations that need to be observed. The complexity of the SAFA framework and low sustainability literacy at the actor level are the main obstacles in the operationalization process. In addition, the limited number of case studies limits the generalization of the findings to a broader context. Therefore, further research is recommended to develop a simpler and more applicable SAFA adaptation model, and test it at different scales and regions. Conceptually, this research contributes to the development of institutional economics by showing that the integration of comprehensive sustainability instruments can shift partnerships from a pattern of dependency towards a sustainable transformation of independence (Schader et al., 2020).

CONCLUSION

This study concludes that the characteristics and quality of Multi-Stakeholder Partnerships significantly determine the direction and level of sustainability of dairy farming cooperatives in Indonesia. The integration of the Sustainability Assessment of Food and Agriculture (SAFA) framework has proven to be effective as an analytical and strategic instrument in mapping the sustainability profile of cooperatives in a multidimensional manner, while revealing the fundamental difference between transactional-prescriptive partnerships and transformative partnerships based on capacity building. Type I KMPs tend to generate structural dependence, especially on the dimension of economic resilience, while type II KMPs show a more balanced sustainability through business diversification and institutional strengthening. However, both types of partnerships still face similar vulnerabilities in occupational health and safety and animal welfare, which shows that the social-environmental dimensions have not been optimally integrated. These findings also confirm the existence of structural challenges in the form of low introduction of the SAFA framework in public policy in the livestock sub-sector as well as factual challenges at the operational level of partnerships that have various motives and formats.

Therefore, this study emphasizes the importance of mainstreaming SAFA in policy design and partnership practices, and recommends expanding the scope of research on large-scale and cross-regional dairy cooperatives to strengthen the reliability and credibility of SAFA as an instrument for assessing the sustainability of the dairy sector oriented towards the Sustainable Development Goals.

REFERENCES

- Bäckstrand, K., Kuyper, J. W., Linnér, B. O., & Lövbrand, E. (2021). Non-state actors in global climate governance. *Environmental Politics*, 30(1-2), 1-25. <https://doi.org/10.1080/09644016.2020.1818153>
- Bijman, J., Iliopoulos, C., Poppe, K., Gijselinckx, C., Hagedorn, K., Hanisch, M., Hendrikse, G., Köhl, R., Ollila, P., Pyykkönen, P., & van der Slangen, G. (2020). Support for farmers' cooperatives: Final report. European Commission. <https://doi.org/10.2762/76495>
- Bijman, J., Muradian, R., & Schuurman, J. (2020). Cooperatives, economic democratization and rural development. *Journal of Rural Studies*, 74, 1-10. <https://doi.org/10.1016/j.jrurstud.2019.12.003>
- Bitzer, V., & Hamann, R. (2022). The business of social and environmental innovation. *Business Strategy and the Environment*, 31(1), 1-14. <https://doi.org/10.1002/bse.2881>
- Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, 2(14), 1-10. <https://doi.org/10.1186/s42466-020-00059-z>
- Candemir, A., Duvaléix-Treguer, S., Latruffe, L., & Stéphan, M. (2021). The impact of farm organization on efficiency. *Agricultural Economics*, 52(2), 241-256. <https://doi.org/10.1111/agec.12604>
- Creswell, J. W., & Plano Clark, V. L. (2021). Designing and conducting mixed methods research (3rd ed.). SAGE Publications. <https://doi.org/10.4135/9781071870695>

- Daryanto, A., & Hafidhuiddin, D. (2021). Institutional challenges of dairy cooperatives in Indonesia. *Asian Journal of Agriculture and Development*, 18(2), 45–62. <https://doi.org/10.37801/ajad2021.18.2.3>
- Dentoni, D., Bitzer, V., & Schouten, G. (2022). Harnessing wicked problems in multi-stakeholder partnerships. *Journal of Business Ethics*, 176(2), 333–352. <https://doi.org/10.1007/s10551-020-04600-0>
- Food and Agriculture Organization. (2021). Sustainability pathways for food systems transformation. *Agricultural Systems*, 190, 103087. <https://doi.org/10.1016/j.agsy.2021.103087>
- Forney, J., & Stock, P. V. (2021). Conversion of family farms and cooperative sustainability. *Journal of Rural Studies*, 82, 234–245. <https://doi.org/10.1016/j.jrurstud.2021.01.020>
- Flick, U. (2022). An introduction to qualitative research (6th ed.). SAGE Publications. <https://doi.org/10.4135/9781529770279>
- Gaitán-Cremaschi, D., Klerkx, L., Duncan, J., Trienekens, J., & Huenchuleo, C. (2023). Governing sustainability transitions in agri-food systems. *Global Food Security*, 36, 100655. <https://doi.org/10.1016/j.gfs.2022.100655>
- Garrido, A., Mendelez-Ortiz, A., & Varela-Ortega, C. (2022). Occupational health and safety challenges in small-scale agriculture. *Safety Science*, 150, 105694. <https://doi.org/10.1016/j.ssci.2022.105694>
- Grashuis, J., & Su, Y. (2020). A review of the empirical literature on farmer cooperatives. *Journal of Economic Surveys*, 34(4), 1–29. <https://doi.org/10.1111/joes.12392>
- Herrero, M., Thornton, P. K., Mason-D'Croz, D., Palmer, J., Benton, T. G., Boudirsky, B. L., Bogard, J. R., Hall, A., Lee, B., Nyborg, K., & West, P. C. (2021). Innovation can accelerate the transition towards a sustainable food system. *Nature Food*, 2(4), 266–272. <https://doi.org/10.1038/s43016-021-00225-4>
- Kilelu, C. W., Klerkx, L., & Leeuwis, C. (2021). Supporting smallholder commercialization through innovation platforms. *Agricultural Systems*, 188, 103037. <https://doi.org/10.1016/j.agsy.2020.103037>

- Meemken, E. M., & Bellemare, M. F. (2020). Smallholder farmers and contract farming in developing countries. *Proceedings of the National Academy of Sciences*, 117(1), 259–264. <https://doi.org/10.1073/pnas.1909501116>
- Meuwissen, M. P. M., Feindt, P. H., Spiegel, A., Termeer, C. J. A. M., Mathijs, E., Mey, Y., Finger, R., Balmann, A., Wauters, E., Urquhart, J., & Vigani, M. (2021). A framework to assess the resilience of farming systems. *Agricultural Systems*, 176, 102656. <https://doi.org/10.1016/j.agsy.2019.102656>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2020). Purposeful sampling for qualitative data collection. *Administration and Policy in Mental Health*, 47(1), 1–13. <https://doi.org/10.1007/s10488-019-00965-0>
- Ruben, R., Cavatassi, R., Lipper, L., Smaling, E., & Winters, P. (2021). Towards food systems transformation. *Food Policy*, 99, 101996. <https://doi.org/10.1016/j.foodpol.2020.101996>
- Schader, C., Baumgart, L., Landert, J., Muller, A., Ssebunya, B., Altenbuchner, C., Schmid, E., Stolze, M., & van Zanten, H. H. E. (2020). Using the Sustainability Assessment of Food and Agriculture framework to evaluate sustainability of food systems. *Agricultural Systems*, 181, 102826. <https://doi.org/10.1016/j.agsy.2020.102826>
- Schader, C., Grenz, J., Meier, M. S., & Stolze, M. (2020). Scope and precision of sustainability assessment approaches. *Sustainability Science*, 15(4), 1001–1016. <https://doi.org/10.1007/s11625-020-00773-2>
- Schader, C., Grenz, J., Meier, M. S., & Stolze, M. (2020). Scope and precision of sustainability assessment approaches. *Ecological Indicators*, 114, 106293. <https://doi.org/10.1016/j.ecolind.2020.106293>
- Selsky, J. W., & Parker, B. (2020). Platforms for cross-sector social partnerships: Prospective sensemaking devices for social benefit. *Journal of Business Ethics*, 165(2), 239–257. <https://doi.org/10.1007/s10551-018-4082-1>
- Selsky, J. W., & Parker, B. (2020). Platforms for cross-sector social partnerships. *Journal of Business Ethics*, 162(3), 567–586. <https://doi.org/10.1007/s10551-018-3981-2>

Silverman, D. (2021). *Interpreting qualitative data* (6th ed.). SAGE Publications.
<https://doi.org/10.4135/9781529716604>

United Nations Development Programme. (2022). *Transforming partnerships for sustainable development*. UNDP.

Yin, R. K. (2020). *Case study research and applications* (6th ed.). SAGE Publications. <https://doi.org/10.4135/9781506336161>

Zimon, D., Madzik, P., & Domingues, P. (2020). Development of sustainability assessment methods. *Sustainability*, 12(20), 1–18.
<https://doi.org/10.3390/su12208314>