

Strategic Institutional Strengthening Through Horizontal Integration Among Smallholder Dairy Farmer Organizations: SASPRI Region Bogor Case Study

Warcito^{a*}, Uding Sastrawan^b, Anita Ristianingrum^c, Dahri^d, Muh Faturohman^e

^{abcde} Agribusiness Management Study Program IPB Vocational School, Bogor

*Corresponding author e-mail: warcitow@gmail.com

ARTICLE INFO

DOI: 10.32832/jmuika.v17i1.22684

Article history:

Received:

18 Januari 2026

Accepted:

24 Januari 2026

Available online:

05 Februari 2026

Keywords:

agribusiness institutions;
farmer organizations;
organizational strategy;
collective marketing; alumni
networks

ABSTRACT

This study examines strategic institutional strengthening through horizontal integration among smallholder dairy farmer organizations under the coordination of the Solidarity Association of Alumni of the Indonesian People's Animal Husbandry School (SASPRI) in the Bogor Region. A descriptive qualitative approach with a case study design was employed to analyze institutional dynamics and managerial practices. Data were collected through field observations, in-depth interviews, and document analysis, and were analyzed using qualitative descriptive techniques complemented by SWOT analysis. The results indicate that horizontal integration has been implemented at an operational and early institutional stage, as reflected in collective milk collection, coordinated production activities, and shared asset utilization. These practices contribute to improved operational efficiency and collective bargaining power. However, horizontal integration has not yet been fully institutionalized, resulting in semi-decentralized governance and continued dependence on specific actors. Internal and external strategic analysis reveals that organizational strengths are mainly derived from farmers' experience, physical resources, and alumni network support, while key weaknesses persist in marketing management, institutional administration, and human resource incentive systems. The study concludes that horizontal integration functions as an effective institutional strengthening strategy when supported by more formalized, systematic, and long-term oriented governance arrangements. The findings contribute to agribusiness management literature by highlighting the role of alumni networks as governance agents and provide practical insights for strengthening smallholder dairy farmer organizations.

INTRODUCTION

The smallholder dairy agribusiness sector in Indonesia continues to face structural challenges that affect business sustainability and farmers' welfare. These challenges include low production efficiency, fragmented business scale, and weak institutional capacity, which collectively place farmers in a vulnerable position as price takers and limit their ability to respond to market dynamics (Farid, M., & Sukesu, 2011; Purnomo et al., 2019). The predominantly small-scale and individually managed nature of dairy farming further constrains farmers' access to stable markets and coordinated production systems.

Institutional strengthening has therefore become a key strategic issue in agribusiness development. Previous studies indicate that collective action and organizational capacity play a critical role in improving farmers' economic performance and long-term sustainability (Handayani, 2020). Farmer participation within collective institutions has also been shown to enhance the effectiveness of agribusiness development programs and strengthen organizational resilience (Yulianti, Y., & Riyanti, 2016). However, empirical evidence suggests that many farmer organizations remain informal or semi-formal, with limited managerial integration and weak strategic orientation. As a result, production and marketing activities are often conducted without an integrated management framework, reducing the effectiveness of farmer organizations as collective economic entities (Susilowati, 2018).

From a strategic management perspective, horizontal integration is widely recognized as a relevant approach to addressing the fragmentation of small-scale agribusiness enterprises. Horizontal integration enables the consolidation of similar business units through coordinated production, joint marketing, shared asset utilization, and collective financial management, thereby strengthening bargaining power within the value chain (Porter, 2008; Shepherd, W. G., & Shepherd, 2011). Empirical studies further demonstrate that horizontal integration can improve operational efficiency and competitiveness among small-scale agribusiness actors (Ménard, C., & Klein, 2017). Nevertheless, most existing research focuses on formal corporations or cooperatives, while the dynamics of semi-formal and community-based farmer organizations remain underexplored.

In strategic analysis, SWOT analysis is widely recognized as a managerial tool that facilitates the systematic identification of internal strengths and weaknesses as well as external opportunities and threats faced by an organization (Gurel, E., & Merba, 2017). Within institutional and organizational contexts, SWOT analysis provides a structured framework to align internal capabilities with external environmental conditions, thereby supporting strategic planning and decision-making processes (Hashemi et al., 2017). In the agribusiness and food sector, SWOT analysis has been extensively applied to formulate development strategies for organizations characterized by small-scale operations, market uncertainty, and high dependency on external actors & K (Ingaldi, M., & Katarina, 2014). Accordingly, the application of SWOT analysis in this study is considered relevant for examining the strategic position of smallholder dairy farmer organizations and for formulating institutional strengthening strategies based on horizontal integration.

Recent literature has begun to acknowledge the role of social networks and community-based actors in supporting institutional development within agribusiness organizations. Social capital and professional networks are considered important mechanisms for facilitating coordination, knowledge transfer, and capacity building (Putnam, 1993; Ostrom, 2010; Sehabuddin et al., 2018). However, the role of alumni networks as governance agents within horizontal integration strategies has received limited scholarly attention, particularly in the context of smallholder dairy farming in developing countries.

The Solidarity Association of Alumni of the Indonesian People's Animal Husbandry School (SASPRI) in the Bogor Region represents an institutional initiative that reflects this emerging governance dynamic. SASPRI functions as an intermediary connecting farmers, alumni, academics, and external partners to support organizational capacity building and business development. While external facilitation has been shown to accelerate institutional transformation among farmer organizations (Bank, 2017 ; FAO., 2017) farmer groups assisted by SASPRI still face challenges in establishing formalized and integrated governance systems. This condition indicates a gap between the theoretical potential of horizontal integration and its practical implementation at the organizational level.

Based on this background, this study seeks to move beyond descriptive analysis by formulating a contextual and applicable institutional model based on horizontal integration. The research focuses on analyzing the institutional conditions of dairy farmer groups fostered by SASPRI in the Bogor Region and developing a horizontal integration-based institutional model that integrates production, marketing, financial management, and capacity-building functions within a unified managerial framework. The novelty of this study lies in positioning the SPR alumni network as an active governance agent in institutional strengthening, thereby contributing to agribusiness management literature and providing practical insights for strengthening smallholder dairy farmer organizations.

RESEARCH METHOD

Research Design. This study employs a descriptive qualitative approach with a case study design to obtain an in-depth understanding of institutional dynamics and managerial practices within smallholder dairy farmer organizations. This approach is considered appropriate as it enables the exploration of complex, contextual, and process-oriented organizational phenomena that cannot be adequately captured through quantitative methods, particularly those related to horizontal integration facilitated by alumni networks. Case study research is especially relevant for examining governance processes, interaction patterns, and institutional mechanisms in real-life organizational settings.

Research Subjects and Objects. The subjects of this study consist of administrators and members of the Solidarity Association of Alumni of the Indonesian People's Animal Husbandry School (SASPRI) in the Bogor Region. The subjects include active dairy farmers as well as SPR alumni who function as governance facilitators and institutional assistants. The selection of subjects is based on their direct involvement in organizational decision-making, implementation of

institutional activities, and participation in horizontal integration processes among farmer groups. The objects of the research are the institutional and managerial practices of dairy farmer groups fostered by SASPRI. The aspects examined include organizational structure, mechanisms of horizontal integration, production management, collective marketing practices, microfinance management, and member capacity development. Particular attention is given to interaction patterns among farmers and the role of SPR alumni as governance agents in strengthening organizational consolidation.

Variables and Operationalization. The main variable in this study is the horizontal institutional integration of smallholder dairy farmer organizations. This variable is operationalized into several analytical dimensions, namely production coordination among farmers, collective marketing arrangements, microfinance management systems, organizational governance structures, and the role of alumni in facilitation and managerial support. Each dimension is analyzed qualitatively based on observed practices, stakeholders' perceptions, and relevant institutional documents.

Population, Sample, and Sampling Technique. The population of this study includes all administrators and members of dairy farmer organizations affiliated with SASPRI in the Bogor Region. Informants were selected using purposive sampling, considering their level of involvement, experience, and strategic roles within organizational activities. This sampling technique ensures that the selected informants possess relevant knowledge and insights necessary to address the research objectives. The main informants consist of SASPRI administrators, chairpersons of farmer groups, and active members directly involved in production and organizational management. In addition, key informants involved in the assessment of internal and external strategic factors for the SWOT analysis include the regional chairperson, secretary, and treasurer of SASPRI Bogor. These individuals were selected due to their authority and comprehensive understanding of the organization's institutional, operational, and strategic conditions.

Data Collection Techniques. Data were collected through field observations, in-depth interviews, and document analysis. Observations were conducted to examine production processes, institutional activities, and coordination mechanisms among members. In-depth interviews were carried out using a semi-structured format with SASPRI management, farmer group leaders, and active members to explore experiences, perceptions, and managerial practices related to horizontal integration. Document analysis involved reviewing internal organizational reports, institutional structures, and partnership documents to support data triangulation and enhance the credibility of findings.

Data Analysis Techniques. Data analysis was conducted using qualitative descriptive analysis through the stages of data reduction, data display, and conclusion drawing. To strengthen the strategic interpretation of findings, internal and external strategic analysis using the SWOT framework was applied to identify organizational strengths, weaknesses, opportunities, and threats in the context of horizontal integration. The application of SWOT analysis allows for a comprehensive assessment of organizational performance and environmental conditions, thereby supporting evidence-based strategic formulation (Wang, H., Li, C., & Zheng, 2015). In the context

of organizational and marketing strategy, SWOT analysis has been widely recognized as an effective tool for translating analytical findings into strategic priorities that can be implemented at both operational and institutional levels. Accordingly, SWOT analysis in this study serves as an integrative analytical instrument to support the formulation of institutional strengthening strategies based on horizontal integration among smallholder dairy farmer organizations. Data triangulation across observations, interviews, and document analysis was applied to ensure the consistency, validity, and credibility of the research findings. The results of the analysis form the basis for developing a horizontal integration-based institutional model and deriving managerial implications for strengthening smallholder dairy farmer organizations.

RESULTS & DISCUSSION

Institutional Profile and Horizontal Integration Practices. The results indicate that SASPRI in the Bogor Region functions as an umbrella organization coordinating four smallholder dairy farmer groups (Mandiri Sejahtera, Kania, Muda Berkarya, and Bina Mandiri) with a total of 48 active farmers. Horizontal integration within these groups remains at an operational and early institutional stage, as reflected in collective milk collection through shared cooling units, joint utilization of production assets, and coordinated production activities among farmer groups. These practices demonstrate horizontal integration as a mechanism for consolidating similar business units to improve operational efficiency and strengthen farmers' collective bargaining power.

Empirical findings show that integration has primarily developed at the operational level rather than being fully institutionalized. Asset ownership, managerial authority, and strategic decision-making are still dispersed among specific groups and individuals, resulting in semi-decentralized governance. This gradual pattern of integration suggests that smallholder farmer organizations tend to initiate horizontal integration through practical operational cooperation before progressing toward more formalized institutional arrangements. Such findings are consistent with previous studies indicating that horizontal integration in small-scale agribusiness organizations evolves incrementally, particularly in developing-country contexts where formal governance structures are still emerging (Porter, 2008 ; Shepherd, W. G., & Shepherd, 2011 ; Bijman et al., 2016 ; Ménard, C., & Klein, 2017)

Internal and External Strategic Conditions. The Internal Factor Evaluation (IFE) score of 2.27 reflects a moderate level of internal capacity, indicating that SASPRI Bogor possesses several operational strengths but continues to face structural weaknesses, particularly in managerial capability, marketing performance, and institutional governance. Conversely, the External Factor Evaluation (EFE) score of 3.18 suggests a relatively strong external environment characterized by favorable market demand, policy support, and opportunities for value-added business development.

The main internal strengths of SASPRI Bogor include farmers' extensive experience in dairy cattle production, the availability of supporting physical production resources, and the presence of an alumni network that provides technical and managerial assistance. These findings align with literature emphasizing the importance of human capital and social capital as key determinants of competitiveness and sustainability in smallholder farmer organizations (Putnam, 1993; Ostrom,

2010). The alumni network, in particular, functions as a bridging mechanism that facilitates coordination, knowledge transfer, and access to external resources.

However, the analysis also reveals significant internal weaknesses, especially in marketing management, institutional administration, and human resource incentive systems. These limitations indicate that managerial capacity remains the primary constraint in transforming farmer organizations from production-oriented groups into sustainable collective economic entities. This finding supports the cooperative life-cycle perspective, which argues that weak managerial capacity and inadequate governance structures can hinder organizational development at more advanced stages (Cook, & Burrell, 2009).

Strategic Implications of the Internal–External Matrix. The weighted *Internal Factor Evaluation* score of 2.27 and *External Factor Evaluation* score of 3.18 were mapped into the *Internal–External* (IE) Matrix by plotting a vertical axis based on the IFE score and a horizontal axis based on the EFE score. This mapping places SASPRI Bogor Area in Quadrant II, indicating its overall strategic position. The position is illustrated in **Figure 1**, which clarifies the recommended strategic direction derived from the integrated analysis of internal and external factors.

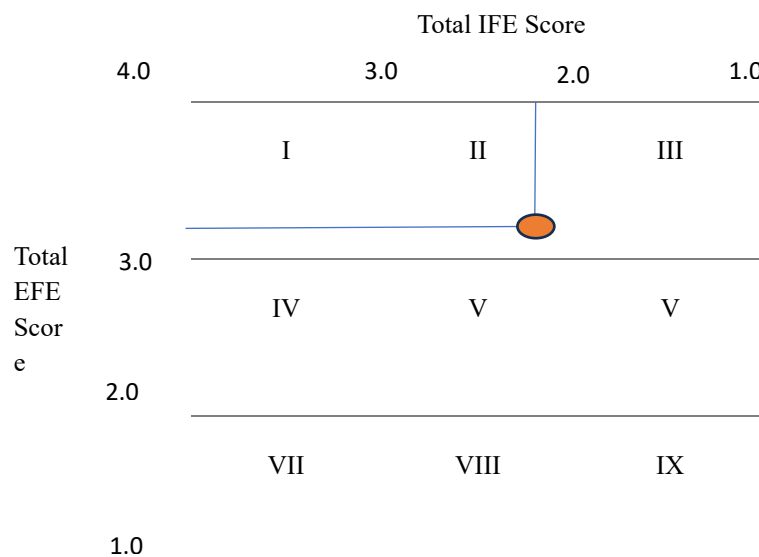


Figure 1 IE SASPRI Matrix in Bogor Region

Source: Research Data (Processed), 2025

Based on the *Internal–External Matrix* mapping, the organization is positioned in Quadrant II, indicating a strong external environment combined with moderate internal capacity that is not yet fully optimized. This position suggests that the organization has a sufficient internal foundation to conduct operational and institutional activities while facing substantial external opportunities for further development.

Quadrant II implies that the most appropriate strategic orientation is selective growth supported by internal capacity strengthening. Performance improvement and business expansion should

therefore be pursued in a gradual and measured manner to remain aligned with existing internal capabilities. In the context of smallholder dairy farmer organizations, this condition requires a strategic focus on enhancing managerial effectiveness, consolidating institutional structures, and strengthening coordination among business units prior to more aggressive expansion. Accordingly, horizontal integration serves as a critical instrument for reinforcing institutional capacity and enabling the sustainable utilization of external opportunities.

These findings indicate that institutional strengthening strategies should extend beyond increasing primary production to include value creation and business diversification. This perspective aligns with strategic management principles emphasizing organizational innovation and the development of supporting business units as key drivers of agribusiness sustainability (Porter, 2008; World Bank, 2017)

Strategic Implications of Horizontal Integration. The findings further confirm that horizontal integration among farmer groups contributes to improved coordination of production activities, shared resource utilization, and collective marketing efforts. Such integration enhances organizational efficiency and strengthens institutional capacity through inter-group networking and collaboration. This pattern is consistent with previous research highlighting the role of networking and inter-organizational collaboration in sustaining small-scale enterprises and reinforcing their institutional foundations (Setya et al., 2017).

Moreover, strategic insights derived from the SWOT analysis emphasize that managerial capacity and institutional governance are critical determinants of organizational competitiveness. In line with strategic management perspectives, organizational adaptability and strategic orientation are increasingly essential for enhancing competitiveness, particularly in the context of Industry 4.0 and ongoing agribusiness transformation (Iswanto et al., 2019). Therefore, horizontal integration should not be viewed merely as an operational collaboration mechanism, but rather as a broader institutional strengthening strategy that requires formalized governance, systematic management practices, and long-term strategic orientation.

Overall, these findings highlight that the effectiveness of horizontal integration in smallholder dairy farmer organizations depends not only on operational cooperation but also on the development of robust institutional and managerial frameworks. Strengthening these dimensions is essential to ensure that horizontal integration contributes sustainably to organizational performance and competitiveness.

Discussion: Horizontal Integration as an Institutional Strengthening Strategy. The discussion of the results of the study emphasized that horizontal integration in the organization of smallholder dairy farmers functions as an institutional strengthening strategy, not as the final goal. The integration that occurred at SASPRI Bogor is still in the initial consolidation stage, where production and marketing coordination has been running, but it has not been fully supported by a standardized governance and management system. This reinforces the argument that horizontal integration in small businesses is procedural and requires long-term institutional support (Ménard, C., & Klein, 2017).

The role of alumni as governance *agents* is an important finding in this study. Alumni function as knowledge facilitators, partnership mediators, and drivers of institutional consolidation. This role enriches the agribusiness management literature which has so far emphasized formal cooperatives without considering the contribution of alumni networks and professional communities (Bijman et al., 2016). However, the high dependence on certain actors also underscores the need for a transformation towards institutional-based governance in order to ensure organizational sustainability.

Overall, the results of the study show that the institutional strengthening strategy based on horizontal integration at SASPRI Bogor needs to be directed at improving institutional formalities, strengthening marketing management, and developing collective business units. Thus, horizontal integration not only improves operational efficiency, but also builds a stronger institutional foundation for people's dairy farmer organizations, as recommended in the sustainable agribusiness development literature (FAO., 2017; World Bank, 2017).

CONCLUSION & SUGGESTION

Conclusion. This study confirms that SWOT-based strategic analysis provides a relevant and applicable framework for assessing institutional conditions and formulating development strategies for smallholder dairy farmer organizations (Gurel, E., & Merba, 2017). The findings demonstrate that institutional strengthening through collective action and horizontal integration plays a crucial role in enhancing organizational sustainability and strategic competitiveness (Handayani, 2020).

Empirical results indicate that horizontal integration implemented within smallholder dairy farmer organizations under the coordination of SASPRI Bogor remains at an initial operational and early institutional stage. This integration is reflected in collective milk collection, coordinated production activities, and shared utilization of production assets, which contribute to improved operational efficiency compared to individual farming arrangements. However, the integration has not yet been fully institutionalized, as organizational governance remains semi-decentralized and dependent on specific actors.

The internal and external strategic analysis reveals that SASPRI Bogor possesses relatively strong internal capacity, particularly in terms of farmers' production experience, availability of physical resources, and alumni network support as a form of organizational social capital. Nevertheless, the organization continues to face significant weaknesses in marketing management, institutional administration, and human resource incentive systems, which limit its ability to function as a sustainable collective economic entity. Externally, favorable market demand and opportunities for value-added business development coexist with structural threats, including dependence on a limited marketing channel and monopsonistic market tendencies.

Overall, the findings confirm that horizontal integration should be positioned as an institutional strengthening strategy rather than an end in itself. Its effectiveness depends on the presence of more formalized, systematic, and long-term oriented governance arrangements that support managerial capacity development and organizational consolidation.

Recommendations. Based on the findings, several strategic recommendations are proposed. First, institutional strengthening efforts should prioritize the formalization of organizational governance through the clarification of organizational structures, division of roles and responsibilities, and the development of standardized administrative and financial management systems. Such measures are essential to reduce dependency on individual actors and enhance organizational accountability.

Second, the development of collective business units should be accelerated, particularly in downstream activities and livestock waste management, as a means of economic consolidation and value-added creation for members. These initiatives can enhance income diversification and improve organizational resilience.

Third, strengthening marketing management through diversification of marketing channels, including the adoption of digital-based marketing strategies, is necessary to reduce market dependence and improve farmers' bargaining positions within the value chain.

Fourth, while the role of alumni as governance agents has proven to be strategically important, this role should gradually be institutionalized within a formal governance framework to ensure organizational sustainability beyond individual involvement.

For future research, it is recommended to conduct quantitative studies examining the impact of horizontal integration on financial performance and productivity outcomes. Expanding the research context to other regions and agricultural commodities would also enhance the generalizability of findings and contribute to a broader understanding of horizontal integration as an institutional strengthening strategy in agribusiness.

ACKNOWLEDGEMENT

Gratitude was expressed to the Alumni Solidarity of the Indonesian People's Animal Husbandry School (SASPRI) Bogor for their support, data access, and facilitation during the research process. Appreciation was also given to the administrators, alumni facilitators, and dairy farmers who have participated and shared information openly. In addition, the award was presented to the academic community of the Vocational School of the Bogor Agricultural University (IPB University) for valuable guidance and academic input in refining this research. All limitations that are still contained in this study are entirely the responsibility of the author.

REFERENCES

- Bijman, J., Muradian, R., & Schuurman, J. (Eds.). (2016). *Cooperatives, economic democratization and rural development*. Edward Elgar Publishing.
- Cook, M. L., & Burrell, M. J. (2009). A cooperative life cycle framework. *Journal of Cooperatives*, 23, 1–22.
- FAO. (2017). *Strengthening farmers' organizations and institutions*. Food and Agriculture Organization of the United Nations.
- Farid, M., & Sukesi, H. (2011). Development of domestic fresh milk to meet national milk needs. *Buletin Ilmiah Litbang Perdagangan*, 5(2), 165–178.
- Gurel, E., & Merba, T. (2017). SWOT analysis: A theoretical review. *The Journal of International Social*

Research, 10(51), 995–1006.

Handayani, A. (2020). Implementation of a program to strengthen farmer institutions in Kledung Subdistrict, Temanggung Regency. *Bumiphala: Jurnal Pengembangan Daerah*, 1(1), 12–18.

Hashemi, S. M., Farzane, S. S., & Vahide, S. (2017). Strengths, weaknesses, opportunities and threats (SWOT) analysis and strategic planning for institutional development. *Journal of Applied Linguistics and Language Research*, 4(2), 141–152.

Ingaldi, M., & Katarina, L. S. (2014). Company strategy determination using SWOT method. *Acta Technologica Agriculturae*, 17(3), 67–72.

Iswanto, J., Amiartuti, K., & Murgianto, &. (2019). Strategic management to enhance competitiveness in Industry 4.0. *International Journal of Economics, Business and Accounting Research*, 3(2), 146–154.

Ménard, C., & Klein, P. G. (2017). *Organizational economics: From classical theories to the modern firm*. Cambridge University Press.

Ostrom, E. (2010). Beyond markets and states: Polycentric governance of complex economic systems. *American Economic Review*, 100(3),. <https://doi.org/10.1257/aer.100.3.641>

Porter, M. E. (2008). *Competitive advantage: Creating and sustaining superior performance*. Free Press.

Purnomo, S. H., Saptana, & Ashari, &. (2019). Agribusiness institutions of people's dairy farming in Indonesia. *Journal of Agroeconomics*, 37(2), 95–110.

Putnam, R. D. (1993). *Making democracy work: Civic traditions in modern Italy*. Making democracy work: Civic traditions in modern Italy.

Sehabuddin, U., Warcito, & Sadih., &. (2018). Social capital in the process of community empowerment in the City of Bogor, Bogor Regency, Cianjur, and Sukabumi. *Jurnal Manajemen*, 7(1), 29–38.

Setya, P. A., Ery, T. D., & Suharto, &. (2017). Networking factor of business sustainability. *International Journal of Academic Research in Business and Social Sciences*, 7(5), 308–320.

Shepherd, W. G., & Shepherd, J. M. (2011). The economics of industrial organization. *Waveland Press*.

Susilowati, S. H. (2018). Institutional dynamics of farmers and challenges of agricultural development. *Agroeconomic Research Forum*, 36(1), 1–14.

Wang, H., Li, C., & Zheng, Y. (2015). Space expression of industry status using GIS and SWOT analysis. *Wuhan University Journal of Natural Sciences*, 20(5), 445–454.

World Bank. (2017). Enabling the business of agriculture. *World Bank Group*.

Yuliati, Y., & Riyanti, I. (2016). The strategy to increase women farmers' participation in the village food barn program in East Java. *International Journal of Environmental & Science Education*, 11(12), 5730–5743.