
Journal of Management Research and Review

Volume: 01 Issue: 06 December-2025

Dynamics of Capital Structure, Innovation, And Partnerships among Micro and Small Food Manufacturing Enterprises in Indonesia

Erna Maulina

Department of Business Administration, Faculty of Social and Political Science, Universitas Padjadjaran, Indonesia

Anang Muftiadi

Department of Business Administration, Faculty of Social and Political Science, Universitas Padjadjaran, Indonesia

Agus Taryana

Department of Government Science, Faculty of Social and Political Science, Universitas Padjadjaran, Indonesia

Published Date: December 24, 2025

Article DOI: 10.65150/EP-jmrr/V1E6/2025-03

ABSTRACT: This study examines the dynamics of Micro and Small Enterprises (MSEs) in the food manufacturing sector (KBLI 10) in Indonesia, with a particular focus on the relationship between capital structure, innovation characteristics, and partnership patterns over the period 2020–2024. A descriptive-quantitative approach is employed using official secondary data from Statistics Indonesia, enabling a comprehensive mapping of sectoral trends without intervening in the behavior of individual enterprises. The analysis explores how the dominance of self-financing, the variation in the intensity and types of innovation, and the configuration of partnerships—ranging from general trade and operational cooperation to more structured schemes—are linked to the positioning of MSEs within value chains and their opportunities to enhance competitiveness. The empirical findings are interpreted in dialogue with the literature on MSME finance, small business innovation, and partnership integration in developing economies, thereby providing a more nuanced understanding of structural constraints and policy spaces relevant to Indonesia’s food MSEs.

KEYWORDS: micro and small enterprises, food sector, capital structure, innovation, partnership.

INTRODUCTION

Micro and Small Enterprises (MSEs) in the food manufacturing sector (KBLI 10) occupy a strategic position in Indonesia’s economic structure, as they contribute significantly to employment creation, food security, and the spatial distribution of production activities at the local level (Maulana et al., 2024). Recent official publications and empirical studies indicate that MSEs constitute the backbone of small-scale manufacturing and show relative resilience to external shocks, yet they simultaneously face structural pressures in the form of demand uncertainty, shifting consumer preferences, and increasingly stringent product and process standards (Direktorat Statistik Industri, 2025). At the same time, global and national literature emphasizes that the performance of MSEs is critically shaped by three key dimensions, namely capital structure and access to finance, the capacity for product and process innovation, and the quality of linkages within partnership networks and value chains; strengths or weaknesses in these dimensions determine the ability of small-scale enterprises to grow, adapt, and sustain their role in long-term employment creation (Ayyagari et al., 2011).

A growing body of research shows that although MSMEs in many developing countries serve as a key engine of job creation, constrained access to formal finance, low levels of financial literacy, and weak integration into business networks remain major obstacles to scaling up and improving productivity (Fatoki, 2021). Conversely, studies on innovation and business networking emphasize that enterprises able to combine more diversified funding sources, targeted innovation strategies, and high-quality partnerships exhibit stronger resilience and competitiveness, including in the context of post-crisis recover (Hanitha et al., 2025). However, empirical evidence that specifically examines the interlinkages between financing patterns, innovation behavior, and partnership arrangements among micro and small enterprises in Indonesia’s food sector using the most recent national data remains limited and fragmented, thereby underscoring the need for more systematic analysis to fill this gap and strengthen the evidence base for policy formulation.

Against this backdrop, this study aims to comprehensively analyze the relationships between capital structure, innovation characteristics, and partnership patterns among Micro and Small Enterprises in the food manufacturing sector (KBLI 10) in Indonesia during the period 2020–2024, as an empirical basis for formulating strategies to enhance the competitiveness and sustainability of these enterprises.

METHOD

This study employs a descriptive-quantitative approach to depict trends in the number of business units in the food manufacturing sector (KBLI 10) in Indonesia over the last five years. This approach is used to assess sectoral dynamics based on numerical data without manipulating or experimentally intervening in the observed variables. The study is exploratory in nature, focusing on the patterns of growth and distribution of food industry enterprises using data published by an official institution, namely Statistics Indonesia (Badan Pusat Statistik/BPS).

The analysis is based on secondary data obtained from the official publications of Statistics Indonesia (BPS), particularly the Profil Industri Mikro dan Kecil reports. The dataset covers the period from 2020 to 2024 and is assessed at the national aggregate level. Data were collected through access to BPS's publication portal, and relevant series were subsequently processed and adjusted to fit the requirements of trend analysis. Descriptive statistical techniques are applied to examine these data, including:

- Time-series trend analysis to observe year-to-year changes in the number of business units.
- Year-on-year growth rate as an indicator of sectoral dynamics.
- Data visualization using line charts, bar charts, and related graphical tools to reinforce the descriptive narrative.

RESULT AND DISCUSSION

Over the period 2020–2024, the dynamics of Micro and Small Enterprises (MSEs) in the food manufacturing sector (KBLI 10) indicate an expansion of the enterprise base, with an overall upward yet fluctuating growth trajectory in line with post-pandemic adjustment and shifts in domestic demand. The structural characteristics of MSEs—labor-intensive, adaptive, and geographically dispersed—are reflected in a capital structure predominantly financed by own capital, complemented to a lesser extent by partial or full external funding; this configuration shapes both the capacity for expansion and the resilience of cash flows. At the same time, the share of enterprises engaging in product and process innovation shows an upward tendency, although its intensity and distribution remain uneven across food subsectors. These patterns are consistent with signs of production recovery in 2024 and with annual MSE profiles published by Statistics Indonesia. The analysis adopts the KBLI 10 classification to ensure consistency in capturing food processing activities.

In terms of business network governance, the partnership schemes adopted by enterprises—such as nucleus–plasma, subcontracting, general trade, profit-sharing, operational cooperation, joint ventures, and other forms—serve as mechanisms to access markets, finance, technology, and secure supply and downstream integration. The legal framework governing these arrangements is explicitly stipulated in Government Regulation No. 7/2021, which defines partnership models and the roles of participating parties. Accordingly, the 2020–2024 evidence on the number and growth of enterprises, capital structure, innovation intensity (in both absolute and proportional terms), and the typology and dynamics of partnerships in the food sector may be interpreted as a gradual upgrading process. In this perspective, enterprises that are more strongly integrated into partnership networks and able to mobilize external capital tend to enjoy greater opportunities for innovation and scaling up. A detailed presentation of these empirical patterns is provided in the figures and tables below:

Micro and Small Food Manufacturing Enterprises in Indonesia, 2020–2024

Figure 1 indicates that the number of Micro and Small Enterprises (MSEs) in the food manufacturing sector has tended to increase over the period 2020–2024, with a marked acceleration following the post-pandemic recovery phase. The growth rate rose from 1.52% in 2021 and 3.13% in 2022, surged to 11.58% in 2023, and then moderated while remaining positive at 7.31% in 2024. This pattern confirms a continuous expansion of the enterprise base, with growth momentum peaking in 2023 and persisting in 2024 at a more moderate pace.

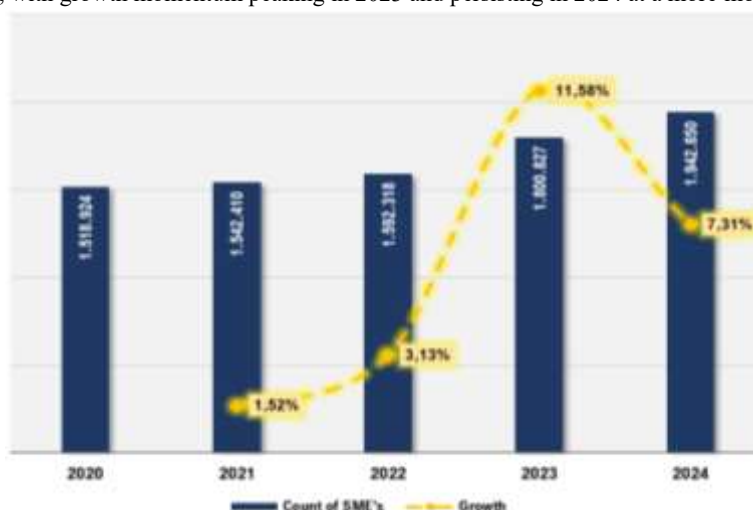


Figure 1. Number and Growth of Micro and Small Food Manufacturing Enterprises in Indonesia, 2020–2024

The growth pattern of micro and small enterprises (MSEs) in the food manufacturing sector (KBLI 10) over the period 2020–2024 reflects strong and relatively consistent recovery capacity, indicating that this subsector has become one of the key drivers of post-pandemic economic revitalization. The upward trend in the number of enterprises aligns with the structural characteristics of food MSEs, which are labor-intensive, based on essential needs, and characterized by relatively low entry barriers, as documented in the Profile of Micro and Small Industries highlighting their role in employment creation and in supporting both local and national economic activity (Direktorat Statistik Industri, 2025).

The shift toward a more moderate growth rate following the surge in 2023 may be interpreted as a transition from a rebound phase to a consolidation phase, during which enterprises begin to stabilize production capacity, supply chains, and sales models rather than merely returning to pre-crisis levels. This interpretation is consistent with previous studies demonstrating that MSMEs—particularly in the food and beverage sector—have been able to recover through adaptive strategies such as digital marketing, product diversification, and cost efficiency, with those adopting business transformation and benefitting from policy support recovering more rapidly than those maintaining conventional practices (Ahmad et al., 2022).

Furthermore, the study in Fizzanty & Maulana (2024) underscores that resilience strategies involving the use of online platforms and strengthened customer relationships positively influence MSME performance during and after the pandemic. At the same time, the strong recovery observed in the food subsector contrasts with early-pandemic evidence emphasizing the high vulnerability of culinary MSMEs to declines in sales and liquidity constraints, suggesting that the 2020–2024 trajectory illustrated in Figure 1 can be understood as a “revival phase” that confirms the structural resilience of food MSEs once policy frameworks, domestic demand, and firm-level adaptation begin to operate in a more mutually reinforcing manner.

Sources of Business Capital among Micro and Small Food Manufacturing Enterprises, 2020–2024

Figure 2 shows that MSEs financed “entirely by own capital” dominate the food sector and increase steadily from approximately 1.37 million units in 2020 to 1.70 million units in 2024. In contrast, enterprises using “partly external capital” exhibit a fluctuating pattern—rising in 2021, declining in 2022, surging again in 2023, and slightly decreasing in 2024—yet their share remains well below that of self-financed units. The group financed “entirely by external capital” is relatively small and tends to decline after peaking in 2022. This configuration suggests that expansion is primarily underpinned by internal capital, while external funding plays a supplementary role with cyclical characteristics.

Figure 3 reveals three contrasting growth patterns by source of capital. Enterprises financed entirely by own capital grow steadily and strengthen from 0.48% in 2021 to 8.98% in 2024. By contrast, the group using partly external capital is highly volatile, with growth of 10.62% in 2021, a contraction of –15.76% in 2022, a sharp rebound of 43.36% in 2023, and a decline of –2.69% in 2024. The group financed entirely by external capital follows a clear boom–bust cycle, increasing by 6.30% in 2021 and 36.40% in 2022, then contracting by –10.67% in 2023 and –17.24% in 2024. These patterns reaffirm that more sustainable expansion is predominantly driven by internal capital, whereas reliance on external financing is more prone to cyclical instability.

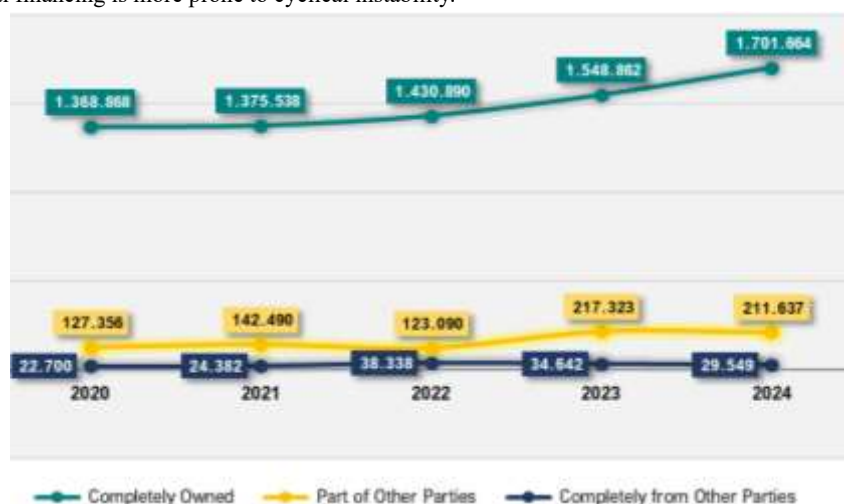


Figure 2. Number of Micro and Small Food Manufacturing Enterprises in Indonesia by Source of Capital, 2020–2024

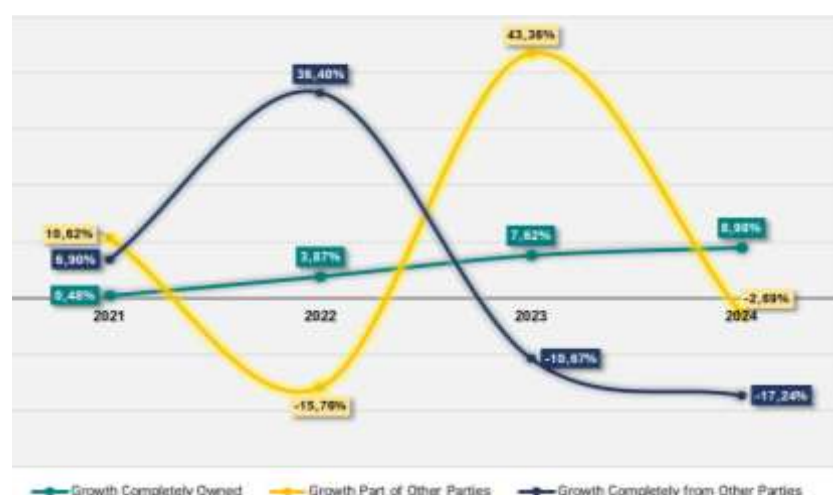


Figure 3. Growth in the Number of Micro and Small Food Manufacturing Enterprises in Indonesia by Source of Capital, 2020–2024

The dominance of fully self-financed capital structures among micro and small food manufacturing enterprises indicates that the expansion in the number of firms relies primarily on internal capital accumulation rather than on strong integration with formal financial institutions. This pattern is consistent with Statistics Indonesia's findings across various regions, which show that most micro and small industrial enterprises continue to depend on personal savings or family funds as their main sources of business financing (Direktorat Statistik Industri, 2025). Limited collateral, low levels of financial literacy, and a preference to avoid debt-related risk constrain access to bank credit and formal investors, as highlighted in study Tambunan (2019) on MSME financing in Indonesia.

In this context, the consistent increase in the number of self-financed enterprises may be interpreted as evidence of financial resilience and autonomy, but at the same time suggests that such growth risks remaining locked at a small scale if not accompanied by expanded access to more productive forms of financing. Conversely, the fluctuating patterns observed among enterprises partially or fully financed by external sources indicate that the involvement of financial institutions and external partners remains selective and highly sensitive to macroeconomic shifts and policy changes. This is in line with international literature which emphasizes that access to finance is one of the key constraints to MSME growth in developing economies (Beck & Demirguc-Kunt, 2006). As well as with the analysis in World Bank (2025), which underlines shallow financial deepening as a factor limiting business scale and long-term investment.

The evidence presented in Figures 2 and 3 therefore reinforces the argument that strengthening the capital structure of micro and small food manufacturing enterprises cannot rely solely on own capital, but requires the development of inclusive financing instruments tailored to MSME risk profiles and embedded within partnership-based ecosystems that can mitigate the volatility of external capital use while supporting upgrades in production capacity and competitiveness.

Innovation Practices among Micro and Small Food Manufacturing Enterprises, 2020–2024

Figure 4 shows that while the majority of Micro and Small Enterprises (MSEs) in the food manufacturing sector remain non-innovative, the number of enterprises undertaking innovation increased sharply over the period 2020–2024. The non-innovating group rose from 1,488,700 enterprises in 2020 to 1,640,877 in 2024, whereas the innovating group expanded from 30,224 (2020) and 34,306 (2021) to 110,619 (2022), 166,948 (2023), and 301,973 (2024). The acceleration beginning in 2022 marks a turning point in the adoption of innovation, although a substantial gap in absolute numbers between innovators and non-innovators persists. This pattern indicates a strengthening innovation capacity among a growing subset of firms, while simultaneously suggesting that the majority still require targeted policy support and a more enabling ecosystem to foster a broader and more inclusive innovation transformation.

Figure 5 illustrates that innovation efforts among food sector MSEs are increasingly concentrated on product-related changes, with their share rising from 54.0% in 2020 to 64.8% in 2024 after a temporary decline in 2021. Marketing and distribution innovation displays a fluctuating trajectory—26.6% (2020), 25.0% (2021), peaking at 31.0% (2022), and then falling to 27.4% (2023) and 23.0% (2024). In contrast, innovation in technology and production processes declines gradually from 15.0% (2020) and 22.9% (2021) to 13.9% (2022), 12.9% (2023), and 11.0% (2024), while the “other” category remains marginal and continues to shrink (from 4.4% to 0.6%). These trends suggest that enterprises increasingly prioritize product upgrading, whereas process upgrading and the expansion of marketing channels proceed more selectively and are adopted by a narrower subset of firms.

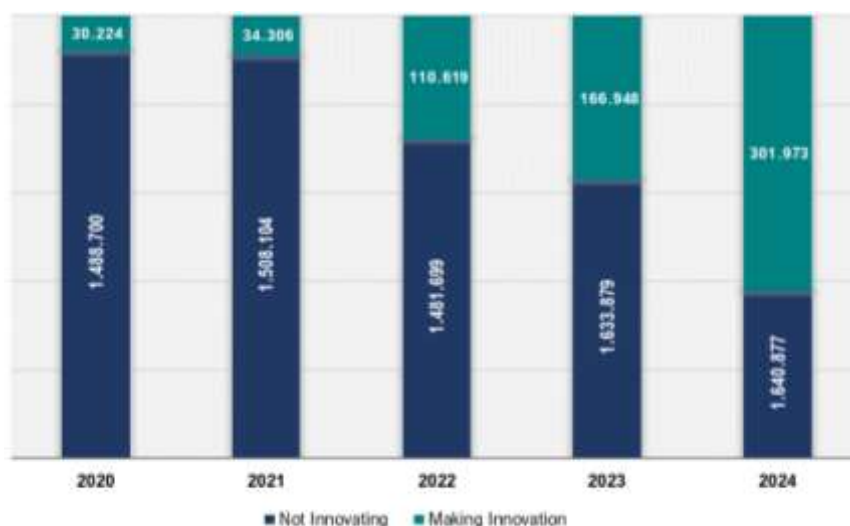


Figure 4. Number of Micro and Small Food Manufacturing Enterprises in Indonesia That Do and Do Not Undertake Innovation, 2020–2024

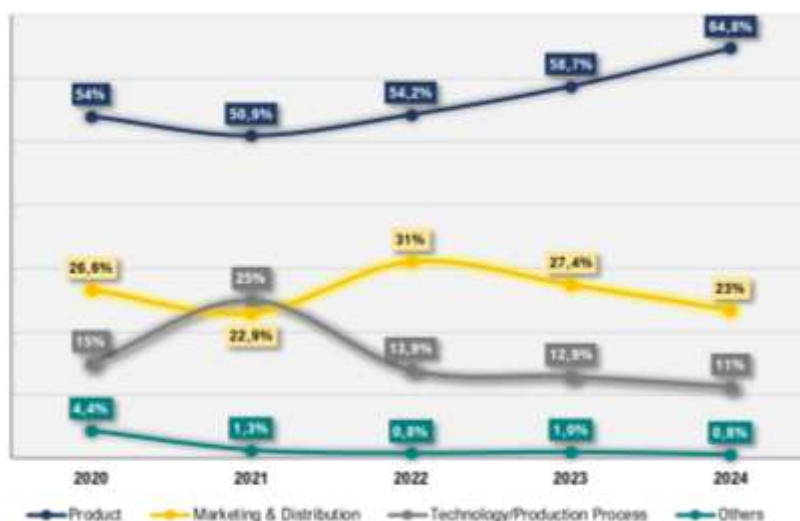


Figure 5. Proportion of Micro and Small Food Manufacturing Enterprises in Indonesia Undertaking Innovation, 2020–2024

The sharp increase in the number of innovative micro and small food enterprises since 2022, alongside the continued dominance of non-innovating firms, reflects a structural dualism: on the one hand, a growing group of enterprises is beginning to accumulate innovation capabilities, while on the other hand, the majority remain locked in conventional production patterns. This configuration is consistent with the evidence reported in Avermaete et al., (2004), which shows that innovation among micro and small enterprises is largely concentrated among actors with sufficient organizational capacity, digital literacy, and access to supportive networks.

The layered rise in innovative enterprises can be interpreted as a response to heightened competitive pressure and emerging post-pandemic market opportunities, while also reinforcing empirical findings that innovation enhances the competitiveness and resilience of food-sector MSMEs through product differentiation, compliance with standards (such as halal certification), and the strategic use of online distribution channels (Ridha & Hidayat, 2021). However, the substantial gap between innovators and non-innovators indicates that the diffusion or “spillover” effects of innovation remain limited, suggesting that policy agendas should prioritize the strengthening of the supporting ecosystem—including access to knowledge, technological advisory services, and innovation financing—so that the post-2022 acceleration does not remain concentrated among a relatively small segment of enterprises (Ramawati et al., 2024).

The distribution of innovation types illustrated in Figure 5 suggests that micro and small food enterprises in Indonesia tend to prioritize product innovation over process or marketing innovation. This emphasis aligns with the characteristics of small-scale food manufacturing, where adjustments to recipes, packaging, and product varieties are more feasible than investments in production technologies that require higher capital and technical capacity (Suryani & Dwiputra, 2025). The fluctuations in marketing-related innovation and the downward trend in process innovation further substantiate that many enterprises continue to face significant barriers in adopting new technologies, digital tools, and standardized production processes, as highlighted in previous studies on innovation constraints and the challenges of digital transformation among MSMEs (Ratnaningtyas et al., 2025).

Taken together, these findings confirm the view that innovation strategies among micro and small food enterprises remain predominantly “low-tech and market-seeking,” and underscore the need for targeted interventions—such as incentives for technology upgrading, quality management training, and support for digital marketing—to gradually shift innovation behavior from mere product modification toward more robust process upgrading and sustainable business model transformation.

Types of Partnership Among Micro and Small Food Manufacturing Enterprises, 2020–2024

Figure 6 demonstrates that most food sector MSEs do not engage in partnership arrangements, and their number increased from 1,541,396 in 2020 to 1,765,890 in 2024, with a pronounced surge in 2023–2024. In contrast, the number of enterprises involved in partnerships fluctuated markedly: very low in 2020 (4,528), rising sharply in 2021 (121,151), declining in 2022 (101,080) and 2023 (82,600), and then rebounding in 2024 (176,860). This evidence confirms that the prevailing business structure is still dominated by independent operations, while partnership-based collaboration remains cyclical and only begins to recover more broadly toward the end of the observation period.

Figure 7 shows that partnerships among micro and small food manufacturing enterprises are predominantly oriented toward marketing activities, which weakened during 2021–2022 (from 46.7% to 40.4%), but recovered in 2023 and regained dominance in 2024 (58.9%). Partnerships related to raw materials constitute the second-largest category, yet display a declining trend after peaking in 2022 (from 28.5% to 23.5% in 2024). Capital-related partnerships rose sharply during the recovery phase in 2021–2022 (23.0%–24.9%), but subsequently decreased in 2023–2024 (from 22.1% to 12.6%). Meanwhile, partnerships involving capital goods remain consistently low (around 3.5%–5.5%), and those classified as “others” are minimal ($\leq 1.4\%$). Overall, these patterns suggest that enterprises primarily leverage partnerships to expand market access, while partnerships for securing inputs and financing exhibit cyclical behavior and are adopted more selectively.

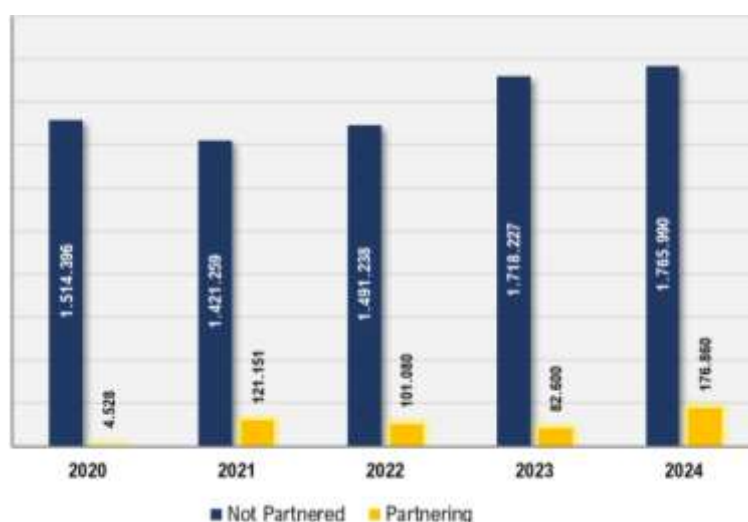


Figure 6. Number of Micro and Small Food Manufacturing Enterprises in Indonesia That Do and Do Not Engage in Partnerships, 2020–2024



Figure 7. Proportion of Micro and Small Food Manufacturing Enterprises in Indonesia Engaging in Partnerships, 2020–2024

Table 1 presents fluctuating partnership dynamics across categories among micro and small food manufacturing enterprises. In 2021, nearly all partnership types recorded very high growth (capital 98.5%; raw materials 95.6%; marketing 95.0%; capital goods 95.4%; others 98.2%). In 2022, a pronounced correction occurred, particularly in marketing (–47.3%), capital (–17.8%), and raw materials (–13.8%), with only a slight increase in capital goods (+3.3%) and a sharp decline in others (–48.7%). The year 2023 shows a selective recovery: marketing turned positive (+7.6%) and others surged (+52.3%), while capital (–19.0%), raw materials (–12.6%), and especially capital goods (–65.0%) remained under pressure. By 2024, the recovery broadened, with strong growth in marketing (+56.4%), capital goods (+54.2%), and raw materials (+36.7%), while capital improved marginally (+2.4%) and others stabilized (+0.9%). This sequence confirms the cyclical nature of partnerships, characterized by a strong expansion in 2021, a corrective phase in 2022, partial recovery in 2023, and a more evenly distributed rebound in 2024.

Table 1. Growth in the Number of Micro and Small Food Manufacturing Enterprises in Indonesia Engaging in Partnerships, 2020–2024

Year/ Category	Capital	Raw Material	Marketing	Capital Goods	Others
2021	98,5%	95,6%	95%	95,4%	98,2%
2022	-17,8%	-13,8%	-47,3%	3,3%	-48,7%
2023	-19%	-12,6%	7,6%	-65%	52,3%
2024	2,4%	36,7%	56,4%	54,2%	0,9%

The dominance of non-partnered arrangements among micro and small food manufacturing enterprises indicates that most actors continue to operate as stand-alone units with limited integration into formal value chains, thereby constraining their capacity for upgrading and market expansion due to reliance on internal resources. The fluctuating and cyclical patterns of partnerships across different categories (capital, raw materials, marketing, and capital goods) suggest that many collaborative relationships are program-based and short-term in nature, rather than the

outcome of stable, institutionalized business arrangements. This pattern is consistent with the findings in Humphrey & Schmitz (2002), which highlight structural constraints faced by MSMEs in Indonesia in building strong linkages with larger firms, including limited managerial capabilities, challenges in meeting quality and compliance standards, and weak bargaining power in contractual negotiations.

Conversely, international evidence in OECD (2023) shows that MSMEs integrated into partnership networks and value chains—both locally and globally—tend to exhibit higher productivity, better access to finance, and stronger resilience to shocks. The misalignment between the potential benefits of partnerships and the low level of sustained participation among micro and small food enterprises underscores the presence of a “missing link”: partnership institutions have not yet been adequately designed as instruments for long-term risk mitigation and capacity building, but are still often perceived as optional, easily reversible arrangements once short-term incentives diminish (Tambunan, 2021).

The composition of partnerships, which is more heavily oriented toward marketing than toward raw materials, capital, or capital goods, further indicates that some enterprises primarily utilize partnerships as channels for distribution and promotion, without deeper integration in production and financing structures (Diana & Sudarmiatin, 2024). This finding is in line with Mourougane (2012), which documents the predominance of marketing-oriented partnerships among manufacturing MSEs in Indonesia, and with the global value chain literature emphasizing that partnerships limited to market access, without meaningful technology transfer or process upgrading, tend to yield only modest upgrading outcomes.

The cyclical patterns observed in the capital, raw material, and “others” categories in Table 1 suggest that when structured support for finance or input supply is introduced (for example, through government programs or off-taker schemes), the number of partnered enterprises can surge rapidly, but is equally susceptible to correction when such schemes are not sustained (Armando et al., 2016). This stands in contrast to recommendations from MSME partnership studies that identify long-term contracts, standardized quality requirements, and shared risk mechanisms as key prerequisites for enhancing competitiveness (Mourougane, 2012). Taken together, the evidence from Figures 6–7 and Table 1 implies that the strategic agenda for micro and small food enterprises should move beyond merely increasing the quantity of partnerships toward redesigning partnership frameworks to be more inclusive and multidimensional (encompassing marketing, raw materials, financing, and technology), so that partnerships function as structural mechanisms for scaling up and achieving sustained upgrading.

Partnership Patterns of Micro and Small Food Manufacturing Enterprises, 2020–2024

Figure 8 indicates that partnership arrangements among micro and small food manufacturing enterprises over 2020–2024 are dominated by General Trade (522,255 enterprises), reflecting a preference for relatively flexible, transaction-based commercial relationships. Operational Cooperation (299,477 enterprises) and the “Others” category (221,459 enterprises) also account for a substantial share, suggesting the presence of diverse operational and non-conventional collaboration schemes. More structured models—such as Nucleus–Plasma (196,332 enterprises) and Profit Sharing (152,751 enterprises)—are adopted by a subset of enterprises engaged in closer upstream–downstream relationships, while Sub-Contracting (124,670 enterprises) appears less prevalent. Joint Venture arrangements (21,420 enterprises) constitute the smallest share, indicating that formal equity-based partnerships are still rarely chosen by micro and small food manufacturing enterprises.

The predominance of general trade and operational cooperation observed in Figure 8 indicates that most partnerships among micro and small food manufacturing enterprises remain oriented toward loose, transactional, and easily renegotiable commercial relationships, rather than towards schemes that foster long-term commitment or facilitate the transfer of production capabilities. This configuration is consistent with the evidence in Hill (2001), which shows that Indonesian MSMEs tend to rely on informal marketing channels or intermediaries, while only a limited share are engaged in formal contractual arrangements with larger firms. The dominance of general trade and non-equity operational cooperation also aligns with the global value chain literature, which highlights that small enterprises in developing countries often occupy the position of arm’s-length suppliers with limited bargaining power, thereby facing relatively constrained opportunities for technical and institutional upgrading compared to those involved in partnerships supported by investment commitments, quality standardization, and technological assistance (Epede & Wang, 2022).

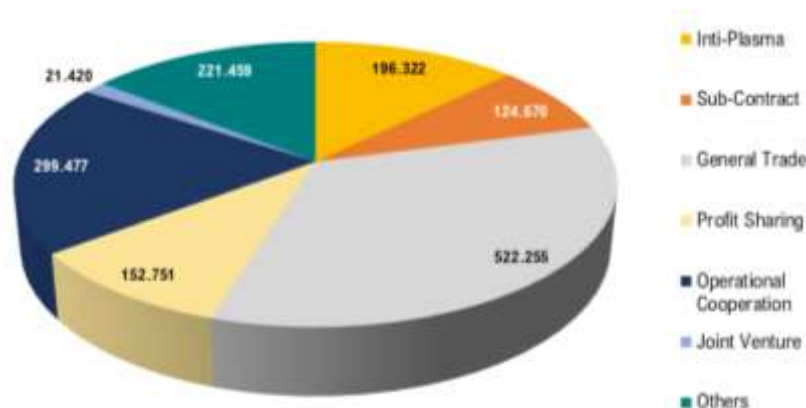


Figure 8. Total Number of Micro and Small Food Manufacturing Enterprises in Indonesia by Partnership Scheme, 2020–2024

Conversely, the relatively small shares of nucleus–plasma schemes, profit-sharing arrangements, subcontracting, and especially joint ventures suggest that partnership models requiring more formal governance structures, explicit risk-sharing mechanisms, and stricter quality standards remain difficult to access or are less attractive for micro and small food enterprises. This pattern reinforces the findings in OECD-UNIDO (2019), which argue that in the absence of policy frameworks explicitly designed to promote high-quality vertical linkages, MSMEs in Southeast Asia tend to be locked into short-term market-based relationships that are insufficient to drive substantial productivity gains or deeper

integration into higher value-added segments of the chain. At the same time, the sizeable proportion classified as “others” implies the emergence of non-conventional partnership forms—such as community-based networks, digital platforms, or localized informal cooperation—that are not yet fully captured within the formal partnership framework, as also suggested by recent studies on networking strategies among Indonesian MSMEs (Diana & Sudarmiatin, 2024).

Taken together, the evidence from Figure 8 strengthens the argument that strengthening micro and small food enterprises requires not only increasing the number of partnerships, but also redesigning institutional arrangements to shift from purely flexible, trade-based relationships toward more structured, reciprocal, and capability-enhancing partnerships, in line with MSME upgrading programs that integrate market linkages with internal capacity development.

CONCLUSION

This study concludes that its objective—to analyze the interrelationships between capital structure, innovation characteristics, and partnership patterns among micro and small enterprises (MSEs) in the food manufacturing sector (KBLI 10) during the period 2020–2024—has been achieved through the use of official national data and an integrated reading of the dynamics across these three dimensions. The evidence shows that a capital structure still largely dependent on internal funds, a rising yet uneven innovation capacity, and predominantly transactional and selective partnership arrangements together shape a landscape in which food-sector MSEs appear relatively resilient, but remain at risk of stagnation in terms of scale and quality upgrading if not supported by more inclusive, well-targeted, and long-term oriented policy measures. The findings provide an empirical foundation for designing competitiveness-enhancing strategies that prioritize expanded access to finance aligned with MSE risk profiles, the strengthening of innovation ecosystems tailored to the needs of small-scale enterprises, and the development of partnership institutions that foster deeper and more equitable integration into value chains on a sustainable basis.

Looking ahead, future research should combine national secondary data with primary data obtained through surveys or in-depth case studies of specific subsectors and regions in order to examine more precisely the causal mechanisms linking sources of finance, innovation intensity, and partnership effectiveness to enterprise performance. Comparative analyses across regions and product types, as well as studies that incorporate dimensions such as gender, digital technology adoption, quality standards, and global market dynamics, are also essential to deepen the understanding of factors that facilitate or hinder upgrading among food-sector MSEs. Such approaches would enable the formulation of more context-specific and segment-sensitive policy recommendations, ensuring that proposed interventions effectively reinforce resilience, enhance productivity, and expand opportunities for micro and small enterprises in Indonesia to move up the value chain.

REFERENCES

- 1) Armando, E., Azevedo, A. C., Fischmann, A. A., & Pereira, C. E. C. (2016). Business strategy and upgrading in global value chains: a multiple case study in Information Technology firms of Brazilian origin. *RAI Revista de Administração e Inovação*, 13(1), 39–47. <https://doi.org/10.1016/j.rai.2016.01.002>
- 2) Avermaete, T., Viaene, J., Morgan, E. J., Pitts, E., Crawford, N., & Mahon, D. (2004). Determinants of product and process innovation in small food manufacturing firms. *Trends in Food Science & Technology*, 15(10), 474–483. <https://doi.org/10.1016/j.tifs.2004.04.005>
- 3) Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2011). *Small vs. Young Firms Across the World: Contribution to Employment, Job Creation, and Growth* (5631; World Bank Policy Research Working Paper No. 5631).
- 4) Beck, T., & Demirgüç-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance*, 30(11), 2931–2943. <https://doi.org/10.1016/j.jbankfin.2006.05.009>
- 5) Ahmad, D. G., Lesmana, H., Fachrizah, H., Revindo, M. D., & Daniswara, R. V. (2022). Dealing with the COVID-19 Pandemic in Indonesia: MSMEs' Coping Strategy, Recovery Path, and Business Transformation. *Jurnal Ekonomi Indonesia*, 11(1), 25–62. <https://doi.org/https://doi.org/10.52813/jei.v11i1.195>
- 6) Diana, N., & Sudarmiatin. (2024). Strengthening International Presence: Networking Strategies for Indonesian SMEs. *International Journal of Business, Economics, and Social Development (IJBEDS)*, 5(4), 493–504. Retrieved from <https://journal.rescollacomm.com/index.php/ijbesd/article/view/802>
- 7) Direktorat Statistik Industri. (2025). *Profil Industri Mikro dan Kecil 2024*. Jakarta: Badan Pusat Statistik.
- 8) Epede, M. B., & Wang, D. (2022). Global Value Chain Linkages: An Integrative Review of The Opportunities and Challenges for SMEs in Developing Countries. *International Business Review*, 31(5), 101993. <https://doi.org/10.1016/j.ibusrev.2022.101993>
- 9) Fatoki, O. (2021). Access to Finance and Performance of Small Firms in South Africa: the Moderating Effect of Financial Literacy. *WSEAS Transactions on Business and Economics*, 18, 78–87. <https://doi.org/10.37394/23207.2021.18.9>
- 10) Fizzanty, T., & Maulana, I. (2024). *The Digitalization of Indonesian Small and Medium Enterprises*. Singapore: Springer Nature. <https://doi.org/10.1007/978-981-97-0029-5>
- 11) Hanitha, V., Hendra, H., & Angreni, T. (2025). Factors Influencing Labor Absorption in the Micro and Small Industry Sector in Banten Province for the 2019–2023 Period. *ECo-Buss*, 8(1), 1011–1023. <https://doi.org/10.32877/eb.v8i1.2950>
- 12) Hill, H. (2001). Small and Medium Enterprises in Indonesia: Old Policy Challenges for a New Administration. *Asian Survey*, 41(2), 248–270. <https://doi.org/10.1525/as.2001.41.2.248>
- 13) Humphrey, J., & Schmitz, H. (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies*, 36(9), 1017–1027. <https://doi.org/10.1080/0034340022000022198>
- 14) Maulana, H., Tarique, K. M., Astuti, R. Y., & Ramdani Harahap, S. A. (2024). Impact and resilience strategy of MSMEs in facing the COVID-19 pandemic: An empirical study on MSMEs in Indonesia. *Diponegoro International Journal of Business*, 7(2), 99–114.

<https://doi.org/10.14710/dijb.7.2.2024.99-114>

- 15) Mourougane, A. (2012). Promoting SME development in Indonesia. *OECD Economics Department Working Papers*, 995, 5–37.
<https://doi.org/10.1787/5k918xk464f7-en>
- 16) OECD. (2023). *OECD SME and Entrepreneurship Outlook 2023*. OECD Publishing.
- 17) OECD-UNIDO. (2019). *Integrating Southeast Asian SMEs in Global Value Chains: Enabling Linkages with Foreign Investors*. Paris: OECD-UNIDO Publishing. Retrieved from www.oecd.org/investment/Integrating-Southeast-Asian-SMEs-in-global-value-chains.pdf
- 18) Ramawati, Y., Bahar, H., & Husriadi, M. (2024). Product Innovation Strategy and its Impact on Sme Competitiveness in The Era of The Digital Economy. *International Journal of Economic Literature (INJOLE)*, 2(8), 2282–2296. Retrieved from
<https://injole.joln.org/index.php/ijle/article/view/258>
- 19) Ratnaningtyas, H., Wicaksono, H., & Irfal, I. (2025). Barriers and Opportunities for MSME Development in Indonesia: Internal and External Perspectives. *International Journal of Multidisciplinary Approach Research and Science*, 3(01), 163–170.
<https://doi.org/10.59653/ijmars.v3i01.1337>
- 20) Ridha, R., & Hidayat, N. K. (2021). Impact of Innovation & Certification to Sme Performance in F&B Sector. *Conference Series*, 3(1), 336–359. Retrieved from <https://adi-journal.org/index.php/conferenceseries/article/view/372>
- 21) Suryani, U., & Dwiputra, I. P. (2025). The Impact of Organizational Innovation Capability, Organizational Agility, and Digital Strategy on Business Resilience in Food and Beverage SME's: The Mediating Role of Adaptability and The Moderating Role of Transformational Leadership. *Indonesian Interdisciplinary Journal of Sharia Economics (IJSE)*, 8(2), 2941–2964.
<https://doi.org/https://doi.org/10.31538/ijse.v8i1.6321>
- 22) Tambunan, T. T. H. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, 9(18), 1–15. <https://doi.org/10.1186/s40497-018-0140-4>
- 23) Tambunan, T. T. H. (2021). Export of Indonesian MSEs and The Role of Partnership. *Journal of Developing Economies*, 6(2), 235–252.
<https://doi.org/10.20473/jde.v6i2.28747>
- 24) World Bank. (2025). *Small and Medium Enterprises (SMEs) Finance*. Washington DC: World Bank.