

Sustainable Development Goals-Based Management Capabilities and Inclusive Economic Growth among Women-Owned Micro, Small, and Medium Enterprises in Binjai City

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Abstract: Women-owned micro, small, and medium enterprises (MSMEs) play a critical role in promoting inclusive and sustainable economic growth, yet their development is constrained by limited managerial capabilities, particularly in financial management, marketing, human resources, and business digitalization. This study aims to assess the management capabilities of women-owned MSMEs in Binjai City and develop an SDG-based management capability framework to strengthen women's economic empowerment and inclusive growth. A mixed-method approach was employed involving 60 women-owned MSMEs affiliated with IWAPI Binjai City. Quantitative data were analyzed using descriptive statistics, percentage scores, and categorical classification, while qualitative data from in-depth interviews and focus group discussions were analyzed using thematic analysis. Quantitative and qualitative findings were integrated through triangulation to formulate the framework. The results show that marketing management achieved the highest score at 70.8% and was categorized as good, followed by financial management at 66.4% and human resource management at 63.7%, both categorized as moderate. Business digitalization recorded the lowest score at 58.5%. Regarding digitalization levels, 41.7% of respondents were classified as low, 38.3% as moderate, and 20.0% as high. Based on the integrated findings, the study proposes an SDG-based management capability framework linking financial strengthening, digital marketing, human resource development, and business digital transformation with SDG 5, SDG 8, and SDG 10. The main contribution is an empirically grounded framework that integrates managerial capability assessment with SDG-oriented interventions for women-owned MSMEs, providing a practical foundation for strengthening competitiveness, women's economic empowerment, and inclusive and sustainable economic growth.

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play an important role in strengthening local economic activity, creating employment opportunities, and supporting inclusive economic development (Rachmawati, 2026). Within this sector, women-owned MSMEs have increasingly contributed to household income generation and community economic empowerment (Edobor & Sambo-Magaji, 2025). Nevertheless, women entrepreneurs continue to face managerial and structural challenges that may limit the competitiveness and sustainability of their businesses. Strengthening management capabilities is therefore essential to ensure that women-owned MSMEs are able to adapt to changing market conditions, utilize available resources effectively, and develop sustainable business practices (Akmatorov et al., 2026; R. A. Purba, 2021). In this context, the integration of management capabilities with the Sustainable Development Goals provides a strategic

framework for strengthening the resilience and sustainability of women-owned Micro, Small, and Medium Enterprises. Effective financial management, digital marketing, human resource management, and business digitalization can improve operational efficiency, expand market access, and support more inclusive economic participation. In Binjai City, strengthening these capabilities is particularly important because women-owned enterprises operate within diverse economic conditions and face varying levels of access to technology, financing, training, and business networks. Therefore, examining the relationship between management capabilities and inclusive economic growth can provide empirical evidence for developing more targeted strategies to empower women entrepreneurs and promote sustainable local economic development.

Management capability encompasses several dimensions that determine the ability of MSME owners to manage and develop their businesses (Kalathingal & Ambammal, 2025). In this study, four dimensions are emphasized: financial management, marketing management, human resource management, and business digitalization (Mishra & Kb, 2026; R. A. Purba, 2026). The research findings indicate that marketing management has the highest capability score at 70.8%, followed by financial management at 66.4% and human resource management at 63.7%. Meanwhile, business digitalization records the lowest score at 58.5%, indicating that digital transformation remains a major challenge for women-owned MSMEs in Binjai City. The relatively low level of business digitalization highlights the need for targeted interventions to strengthen the technological and managerial competencies of women-owned Micro, Small, and Medium Enterprises. Limited adoption of digital tools may restrict access to broader markets, reduce operational efficiency, and constrain the ability of entrepreneurs to respond quickly to changing consumer behavior. Therefore, capacity-building programs should prioritize digital marketing, digital financial management, customer relationship management, e-commerce utilization, and data-driven decision-making. Strengthening these capabilities can enable women entrepreneurs to integrate digital technologies into their daily business activities, improve productivity, expand market opportunities, and build more resilient and sustainable enterprises. Such efforts are also consistent with the Sustainable Development Goals, particularly the promotion of inclusive economic participation, productive employment, and sustainable economic growth.

Digitalization has become increasingly important because MSMEs need to utilize digital technologies for financial recording, marketing, customer relationship management, e-commerce, and business operations (Akhmad, 2026; Depari et al., 2026; R. A. Purba, 2026; Sari et al., 2026). The findings show that 25 of the 60 respondents (41.7%) remain at a low level of digitalization, 23 respondents (38.3%) are at a moderate level, and only 12 respondents (20.0%) have achieved a high level of digitalization. This condition demonstrates the need for systematic capacity building, particularly in digital literacy and the adoption of integrated digital business applications. The integration of management capability development with the Sustainable Development Goals (SDGs) provides a relevant framework for strengthening women-owned MSMEs (Olubiyi, 2026). SDG 5 emphasizes gender equality and women's empowerment, SDG 8 focuses on decent work and economic growth, while SDG 10 promotes reduced inequalities (Nath et al., 2026). In this context, strengthening women entrepreneurs' managerial competencies can contribute not only to improved business performance but also to broader economic participation and sustainable community development (Carina et al., 2026; R. Purba, 2025). The study specifically links financial management and business sustainability with SDG 8, women's capacity development with SDG 5, and improved access to economic opportunities with SDG 10 (Rizvi et al., 2026). The findings further indicate that strengthening management capabilities should be implemented through an integrated and continuous empowerment strategy rather than through isolated training activities. Women-owned Micro, Small, and Medium Enterprises require practical assistance that combines digital literacy, financial planning, marketing innovation, human resource development, and access to business networks. Collaboration among local government institutions, universities, financial institutions,

business associations, and technology providers can facilitate the provision of training, mentoring, financing access, and digital platforms that are aligned with the needs of women entrepreneurs. Such an integrated approach can strengthen business resilience, increase productivity, broaden access to markets and economic opportunities, and support the achievement of inclusive and sustainable economic growth in Binjai City. In the long term, improving managerial and digital capabilities can contribute to greater economic independence among women entrepreneurs while reinforcing the local entrepreneurial ecosystem and advancing the objectives of the Sustainable Development Goals.

Previous studies highlight the importance of management capabilities, digitalization, financial literacy, and entrepreneurial development in strengthening women-owned MSMEs. However, limited studies integrate these dimensions with an SDG-oriented perspective at the local level. Therefore, this study analyzes management capabilities of women-owned MSMEs in Binjai City and develops an SDG-based framework focusing on financial management, marketing, human resources, and digitalization to support inclusive and sustainable economic growth. The proposed framework is expected to provide a practical and context-specific approach for strengthening the capacity of women entrepreneurs in Binjai City. By identifying the strengths and weaknesses across financial management, marketing management, human resource management, and business digitalization, the study can establish clear priorities for intervention and capacity development. The framework also emphasizes the alignment of business development strategies with the Sustainable Development Goals, ensuring that improvements in enterprise performance are accompanied by greater economic inclusion, women's empowerment, and sustainable business practices. Consequently, the study is expected to contribute both empirical evidence for academic research and practical recommendations for policymakers, business support institutions, and other stakeholders involved in promoting women entrepreneurship and inclusive economic development.

Nevertheless, an important research gap remains. Previous studies have established the importance of financial management, marketing capability, human resource management, and digitalization in improving MSME performance and sustainability, but these dimensions have often been examined separately rather than as an integrated management capability framework for women-owned MSMEs. Moreover, limited empirical evidence is available on how these multidimensional capabilities vary among women-owned MSMEs at the local level, particularly in Binjai City, where entrepreneurs face context-specific differences in access to technology, financing, training, markets, and business networks. It is therefore still unclear which managerial capabilities represent the most critical areas for intervention and how these capability gaps can be systematically aligned with the SDGs to promote women's empowerment, inclusive economic participation, and sustainable local economic growth. This study addresses this gap by simultaneously assessing financial management, marketing management, human resource management, and business digitalization among women-owned MSMEs in Binjai City and linking the identified capability conditions to an SDG-based framework, thereby providing context-specific empirical evidence and practical priorities for strengthening women's entrepreneurship and inclusive economic development.

Based on the identified research gap and the challenges faced by women-owned Micro, Small, and Medium Enterprises, this study seeks to provide a comprehensive understanding of management capabilities and their relevance to inclusive economic growth in Binjai City. By integrating financial management, marketing management, human resource management, and business digitalization within the Sustainable Development Goals framework, the study offers an evidence-based foundation for strengthening women entrepreneurs and improving the sustainability of their enterprises. The findings are expected to support the development of more targeted empowerment strategies, strengthen women's participation in economic activities, and contribute to inclusive, resilient, and sustainable local economic growth. Based on the identified research gap and the challenges faced by women-owned Micro, Small, and Medium Enterprises, this study seeks to

provide a comprehensive understanding of management capabilities and their relevance to inclusive economic growth in Binjai City.

RESEARCH METHOD

Research Design

This study employed a mixed-method approach combining quantitative descriptive analysis and qualitative analysis (Iwanaga et al., 2026). The quantitative approach was used to measure the level of management capabilities among women-owned MSMEs, while the qualitative approach was used to obtain an in-depth understanding of the challenges, needs, and strategies for strengthening management capabilities (R. A. Purba & Sondang, 2022; Tran et al., 2026). The research focused on four dimensions of management capability: financial management, marketing management, human resource management, and business digitalization. These dimensions were aligned with the relevant Sustainable Development Goals (SDGs), particularly SDG 5, SDG 8, and SDG 10.

Population and Sample

The study population comprised women-owned MSMEs affiliated with the Indonesian Women Entrepreneurs Association (IWAPI) in Binjai City. A total of 60 women-owned MSMEs were selected as respondents. The respondents were selected using purposive sampling based on the following inclusion criteria: (1) the business was owned or primarily managed by a woman; (2) the business was actively operating during the data collection period; (3) the owner had sufficient experience in managing the business to provide information regarding its management practices; and (4) the respondent was willing to participate in the questionnaire, interview, or related research activities. Purposive sampling was used because the study required respondents who possessed direct experience with the management of women-owned MSMEs and were therefore able to provide relevant information concerning financial management, marketing, human resource management, and digitalization. The 60 respondents represented micro and small enterprises operating primarily in trade, culinary, services, and creative industry sectors. Most respondents had operated their businesses for more than three years, indicating that they had sufficient business experience to assess their managerial capabilities and development challenges.

Data Collection

Primary data were collected through questionnaires, in-depth interviews, and Focus Group Discussions (FGDs). The questionnaire was administered directly to the 60 selected respondents and was designed to measure four dimensions of management capability: financial management, marketing management, human resource management, and business digitalization. In-depth interviews and FGDs were conducted with selected MSME owners, IWAPI administrators, and relevant stakeholders to explore the practical challenges, capacity-building needs, and potential strategies for strengthening women-owned MSMEs.

The questionnaire items were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores indicated stronger management capability. The questionnaire was reviewed and validated before the main data collection to ensure that the items were understandable, relevant to the research context, and representative of the intended dimensions. The qualitative instruments consisted of semi-structured interview and FGD guides developed according to the four management capability dimensions and the identified SDG orientations.

Research Variables and Indicators

The management capability variable was operationalized into four dimensions:

1. Financial Management, covering basic financial recording, cash-flow management, and business financial planning.

2. Marketing Management, covering marketing strategies, customer relationships, social media utilization, and market expansion.
3. Human Resource Management, covering task distribution, workforce management, and competency development.
4. Business Digitalization, covering the utilization of digital financial applications, e-commerce platforms, digital marketing, and integrated digital business systems.

The SDG orientation of the research was reflected through the integration of SDG 5 concerning gender equality and women's empowerment, SDG 8 concerning decent work and economic growth, and SDG 10 concerning reduced inequalities.

Instrument Validity and Reliability

Instrument validity was assessed before the main analysis to ensure that the questionnaire items adequately represented the four management capability dimensions. Content validity was established through expert review by examining the relevance, clarity, and suitability of each item to the research objectives and the characteristics of women-owned MSMEs. Items that were considered unclear or insufficiently representative were revised before the questionnaire was administered to the respondents.

The internal consistency of the questionnaire was evaluated using Cronbach's alpha. A Cronbach's alpha coefficient of ≥ 0.70 was considered indicative of acceptable reliability. Reliability analysis was conducted for the overall management capability instrument and, where applicable, for each dimension. These procedures ensured that the measurement instrument provided sufficiently consistent results for the descriptive assessment of management capabilities.

Data Analysis

Quantitative data were analyzed using descriptive quantitative analysis to determine the level of management capability for each dimension. The results were expressed as percentage scores and categorized according to the level of capability. The analysis showed scores of 70.8% for marketing management, 66.4% for financial management, 63.7% for human resource management, and 58.5% for business digitalization.

Qualitative data obtained from interviews and FGDs were analyzed descriptively to identify the main problems and capacity-building needs. The identified problems included limited ability to prepare simple financial reports, non-integrated digital marketing, absence of standardized human resource procedures, low utilization of digital applications, and limited access to training and business assistance.

Model Development

The quantitative and qualitative findings were subsequently integrated to formulate an SDG-based management capability framework. The proposed framework consists of four main components: strengthening financial management, strengthening digital marketing, developing human resource capacity and business governance, and implementing digital transformation through business applications. The framework is supported by collaboration among IWAPI, local government, higher education institutions, and women-owned MSMEs to promote competitiveness, economic empowerment, and sustainable business development.

RESULTS AND DISCUSSION

Characteristics of Respondents

The study involved 60 women-owned MSMEs affiliated with IWAPI Binjai City, with characteristics analyzed based on business scale, business experience, and digital media utilization. Most respondents operated micro-enterprises, comprising 43 respondents (71.7%), while 17

respondents (28.3%) operated small enterprises. In terms of business experience, 38 respondents (63.3%) had operated their businesses for more than three years, indicating relatively adequate business experience. Meanwhile, 41 respondents (68.3%) reported using digital media in their business activities; however, subsequent findings indicate that digital utilization remains uneven and has not yet developed into comprehensive digital transformation.

Table 1. Characteristics of Women-Owned MSME Respondents

No.	Characteristics	Category	Frequency (n)	Percentage (%)
1	Business Scale	Micro-enterprise	43	71.7
		Small enterprise	17	28.3
2	Business Experience	> 3 years	38	63.3
3	Digital Media Utilization	Using digital media	41	68.3
		Not using digital media	19	31.7
Total	Respondents		60	100

Level of Business Digitalization

The level of business digitalization was analyzed to determine the extent to which women-owned MSMEs in Binjai City have adopted digital technology in their business activities. The analysis involved 60 women-owned MSMEs affiliated with IWAPI Binjai City. The results demonstrate that the level of digitalization varies considerably among respondents.

As presented in Table 2, 25 MSMEs (41.7%) were categorized as having a low level of digitalization. This represents the largest proportion of respondents, indicating that a substantial number of women-owned MSMEs have not yet utilized digital technology optimally in their business operations. Meanwhile, 23 MSMEs (38.3%) were classified as having a moderate level of digitalization, while only 12 MSMEs (20.0%) achieved a high level of digitalization. These findings indicate that the majority of women-owned MSMEs still require capacity building and mentoring to improve digital literacy and integrate digital technology more effectively into their business activities.

Table 2. Level of Business Digitalization among Women-Owned MSMEs

No.	Level of Digitalization	Frequency (n)	Percentage (%)
1	Low	25	41.7
2	Moderate	23	38.3
3	High	12	20.0
Total		60	100

The findings indicate that 80.0% of respondents were in the low-to-moderate digitalization categories, while only one-fifth had reached a high level of digitalization. This suggests that although digital media has been utilized by many women-owned MSMEs, the adoption of digital technology has not yet been fully integrated into business management.

The relatively low level of digitalization may be reflected in the limited use of digital applications for financial recording, e-commerce, integrated digital marketing, and other business management activities. Therefore, digital literacy and transformation support remain important areas for strengthening the management capabilities of women-owned MSMEs in Binjai City. These findings are consistent with the overall management capability analysis, in which business digitalization obtained the lowest score of 58.5% among the four dimensions assessed.

Management Capability Dimensions

Management capability was assessed across four dimensions, namely marketing management, financial management, human resource management, and business digitalization, to identify the strengths, weaknesses, and priority areas for capability development among women-owned MSMEs in Binjai City. The results presented in Table 3 show that marketing management obtained the highest score of 70.8% and was categorized as good, indicating that marketing represents the strongest management dimension, with respondents demonstrating relatively adequate capabilities

in promoting products, utilizing marketing channels, and maintaining customer relationships. Financial management obtained a score of 66.4%, which was categorized as moderate. This result indicates that respondents have basic financial management capabilities but still require improvement in areas such as systematic financial recording, cash-flow management, and business financial planning.

The human resource management dimension achieved a score of 63.7%, also categorized as moderate. This indicates that the management of employees, division of responsibilities, and development of human resource competencies still require strengthening to support sustainable business development. Meanwhile, business digitalization recorded the lowest score at 58.5%, categorized as moderate-low. This finding confirms that digitalization represents the weakest dimension of management capability among the respondents. The relatively low score indicates that the utilization of digital technology for business operations, financial management, marketing, and other integrated business activities remains limited.

Table 3. Management Capability Dimensions of Women-Owned MSMEs

No.	Management Capability Dimension	Score (%)	Category
1	Marketing Management	70.8	Good
2	Financial Management	66.4	Moderate
3	Human Resource Management	63.7	Moderate
4	Business Digitalization	58.5	Moderate-Low

Business Turnover

Business turnover was analyzed to identify the economic scale of women-owned MSMEs participating in the study. The analysis involved 60 women-owned MSMEs affiliated with IWAPI Binjai City and categorized respondents based on their average monthly business turnover. The results show that the largest proportion of respondents, 22 MSMEs (36.7%), generated monthly turnover of less than Rp10 million. This was followed by 18 MSMEs (30.0%) with monthly turnover between Rp10 million and Rp25 million. Furthermore, 12 MSMEs (20.0%) reported turnover between Rp25 million and Rp50 million, while only 8 MSMEs (13.3%) generated more than Rp50 million per month.

Table 4. Monthly Business Turnover of Women-Owned MSMEs

No.	Monthly Business Turnover	Frequency (n)	Percentage (%)
1	< Rp10 million	22	36.7
2	Rp10-25 million	18	30.0
3	Rp25-50 million	12	20.0
4	> Rp50 million	8	13.3
Total		60	100

The distribution indicates that 40 respondents (66.7%) generated monthly turnover of less than Rp25 million, demonstrating that the majority of women-owned MSMEs in the study remain concentrated in the lower turnover categories. Only 20 respondents (33.3%) reported monthly turnover exceeding Rp25 million.

Qualitative Findings

The qualitative analysis was conducted through in-depth interviews and Focus Group Discussions (FGDs) involving women-owned MSMEs and relevant stakeholders associated with IWAPI Binjai City. The qualitative findings were used to identify the main challenges faced by women entrepreneurs in managing and developing their businesses. Five major problems were identified, as presented in Table 5.

Table 5. Main Problems Identified from Qualitative Findings

No.	Identified Problem	Description
1	Limited financial reporting capability	Some MSME owners still have limited ability to prepare simple and systematic financial reports, making it difficult to monitor business financial conditions.
2	Non-integrated digital marketing	Digital marketing activities have been implemented, but they have not yet been integrated into a systematic marketing strategy across available digital channels.
3	Absence of standardized HR procedures	Business owners generally do not yet have standardized procedures for employee management, task distribution, and human resource development.
4	Low utilization of digital applications	The use of digital applications for financial recording, marketing, business operations, and other management activities remains relatively limited.
5	Limited access to training and mentoring	MSME owners have limited access to training, technical assistance, and business mentoring.

SDG-Based Management Capability Framework

Based on the quantitative and qualitative findings, this study developed an SDG-Based Management Capability Framework for women-owned MSMEs in Binjai City. The framework was formulated by integrating the main management capability gaps identified through the survey, interviews, and Focus Group Discussions (FGDs). The results indicate that strengthening MSME management requires an integrated approach that does not focus solely on business performance but also considers women's empowerment, economic growth, and reduction of economic inequalities in accordance with the Sustainable Development Goals (SDGs).

The proposed framework consists of four main components, as follows.

Table 6. SDG-Based Management Capability Framework

No.	Framework Component	Main Focus	SDG Alignment
1	Financial Management Strengthening	Improving financial recording, cash-flow management, financial planning, and basic financial literacy	SDG 8 -Decent Work and Economic Growth
2	Digital Marketing Strengthening	Improving digital marketing strategies, social media utilization, customer engagement, and market expansion	SDG 8 & SDG 10 -Economic Growth and Reduced Inequalities
3	Human Resource Capacity and Business Governance	Strengthening task distribution, employee management, competency development, and business governance	SDG 5 & SDG 8 -Gender Equality and Economic Growth
4	Business Digital Transformation	Increasing the adoption of digital financial applications, e-commerce, digital business systems, and integrated technology	SDG 8 & SDG 10 -Economic Growth and Reduced Inequalities

The proposed framework integrates four key components: financial management strengthening, digital marketing strengthening, human resource capacity and business governance, and business digital transformation. Financial management supports better business control, while digital marketing expands market access. Human resource development strengthens organizational capacity, and digital transformation improves the integration of technology into business processes. The framework requires collaboration among IWAPI, local government, higher education institutions, and women-owned MSMEs to strengthen business competitiveness and sustainability while supporting SDG 5, SDG 8, and SDG 10.

Discussion

The findings demonstrate that the management capabilities of women-owned MSMEs in Binjai City remain uneven across the four dimensions examined (R. A. Purba et al., 2024; Romsumbre et al., 2026). Marketing management achieved the highest score (70.8%), followed by financial

management (66.4%) and human resource management (63.7%), while business digitalization recorded the lowest score (58.5%). This pattern indicates that although women entrepreneurs have developed basic managerial capabilities, strengthening is still required to support business competitiveness and sustainable growth.

The relatively high score for marketing management (70.8%) indicates that marketing is an existing strength among the respondents. Women-owned MSMEs have demonstrated relatively good capabilities in promoting products and maintaining customer relationships. However, the qualitative findings indicate that digital marketing practices are not yet fully integrated. Therefore, existing marketing capabilities need to be strengthened through systematic digital strategies to expand market reach and improve competitiveness.

Financial management, with a score of 66.4%, remains at a moderate level. Limited financial recording and cash-flow management were identified as important challenges. This condition may affect the ability of business owners to monitor performance and make appropriate financial decisions. Strengthening financial literacy and simple financial reporting is therefore important for improving business control and supporting sustainable growth.

The human resource management dimension recorded a score of 63.7%, indicating moderate capability. The absence of standardized procedures for employee management, task distribution, and competency development suggests that many businesses still operate with relatively informal management practices. Strengthening human resource capacity and business governance can help women-owned MSMEs build more structured organizations and improve their ability to expand sustainably.

The most significant challenge is business digitalization, which recorded the lowest score of 58.5%. Furthermore, 25 MSMEs (41.7%) were categorized as having low digitalization, 23 (38.3%) moderate, and only 12 (20.0%) high. This finding indicates that digital technology has not yet been fully integrated into financial management, marketing, operations, and business decision-making. Consequently, digital transformation should become a major priority in MSME capacity-building programs.

The findings also demonstrate the relevance of integrating MSME capacity development with the Sustainable Development Goals (SDGs). Strengthening women entrepreneurs' capabilities supports SDG 5 (Gender Equality) through women's economic empowerment, SDG 8 (Decent Work and Economic Growth) through improved business productivity and sustainability, and SDG 10 (Reduced Inequalities) through broader access to economic opportunities. The integration of these dimensions provides a broader perspective in which MSME development is not only focused on business growth but also on inclusive economic participation.

Based on these findings, the proposed SDG-Based Management Capability Framework integrates financial management strengthening, digital marketing strengthening, human resource capacity and business governance, and business digital transformation. The framework emphasizes collaboration among IWAPI, local government, higher education institutions, and women-owned MSMEs. Such an integrated approach can address the identified managerial and technological gaps while strengthening the competitiveness and sustainability of women-owned MSMEs. Thus, the framework provides a practical basis for promoting inclusive and sustainable economic growth in Binjai City.

CONCLUSION

This study concludes that the management capabilities of women-owned MSMEs in Binjai City are relatively varied across the four dimensions examined. Marketing management represents the strongest capability with a score of 70.8%, followed by financial management (66.4%) and human resource management (63.7%), while business digitalization represents the main challenge with the lowest score of 58.5%. The findings further show that 80.0% of MSMEs remain at low to moderate

levels of digitalization, indicating the need for stronger digital capacity development. Based on the quantitative and qualitative findings, the study proposes an SDG-Based Management Capability Framework consisting of four components: financial management strengthening, digital marketing strengthening, human resource capacity and business governance, and business digital transformation. The framework emphasizes collaboration among IWAPI, local government, higher education institutions, and women-owned MSMEs. Its implementation is expected to strengthen MSME competitiveness and sustainability while supporting SDG 5, SDG 8, and SDG 10 and contributing to more inclusive and sustainable economic growth in Binjai City.

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REFERENCES

- Akhmad, K. A. (2026). Design and Evaluation of an Adaptive E-CRM Model for Enhancing MSME Competitiveness in the Digital Era. *Jurnal Bisnis Dan Manajemen*, 13(1), 15–27.
- Akmatov, S., Samievk, K., Ergeshov, A., Abdyrakhmanova, T., & Boronbaev, A. (2026). The role of small enterprises in promoting economic growth and social welfare. *PA Persona e Amministrazione*, 1(1), 207–228.
- Carina, T., Yani, N. W. M. N., Yanthi, N. P. D., & Permadi, I. K. O. (2026). Digital Inclusion and Women's Entrepreneurial Sustainability: Mapping Barriers and Theoretical Foundations. 2026 17th International Conference on E-Education, E-Business, E-Management and E-Learning (IC4e), 1093–1098.
- Depari, L. Y. I. B., Syaroza, S. P., & Mustika, D. (2026). The Role of Technology Based Business Models in Enhancing the Competitiveness of MSMEs. *Lampung Civil Law Journal*, 1(1), 222–232.
- Edobor, F., & Sambo-Magaji, A. (2025). Small and medium enterprises (SMEs) and sustainable economic development. In P. Kumar, S. Dadwal, R. Verma, & S. Kumar (Eds.), *Digital transformation for business sustainability and growth in emerging markets* (pp. 197–222). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-83549-109-620251008>
- Iwanaga, J., Obata, K., Kato, T., Samrid, R., Lesser, E. R., Cardona, J. J., Kikuchi, K., Kim, C. Y., Ono, K., & D'Antoni, A. (2026). What is the appropriate sample size in human cadaveric studies? A quantitative review of 770 articles. *Clinical Anatomy*, 39(1), 14–19.
- Kalathingal, S., & Ambrammal, S. K. (2025). Innovation capabilities and sustainability in MSMEs. An analysis of empirical studies. *The International Journal of Entrepreneurship and Innovation*, 14657503241307140.
- Mishra, R., & Kb, K. (2026). Is sustainable performance in MSMEs driven by entrepreneurial orientation through knowledge management and dynamic capabilities? *Journal of Knowledge Management*, 30(1), 231–262.
- Nath, A. S., Vadakkedathu Neelakandan, A., & Aswathi, K. B. (2026). The Role of ICT in Empowering Women-Led MSMEs: Analysing WhatsApp Commerce as a Catalyst for SDG 5 & SDG 8 in Tier-3 India. *World Conference on Information Systems for Business Management*, 123–133.
- Olubiyi, T. O. (2026). *Strengthening International Trade and Sustainable Development Goal No. 5: Relationship Between Gender Diversity and Creativity in Selected Women-Owned Informal Small Businesses in Africa*.
- Purba, R. (2025). DSS Determines the Best Urban Village in handling COVID-19 Using AHP Method.

- Jurnal Sistem Komputer Dan Informatika (JSON)*, 7, 742–751.
<https://doi.org/10.30865/json.v7i2.9384>
- Purba, R. A. (2021). Application design to help predict market demand using the waterfall method. *Matrix: Jurnal Manajemen Teknologi Dan Informatika*, 11(3), 140–149.
- Purba, R. A. (2026). Integration of Machine Learning and GAP Analysis for a Data Driven Lecturer Performance Evaluation System. In *International Journal of Advances in Data and Information Systems* (Vol. 7, Issues 1 SE-Articles, pp. 52–61). <https://doi.org/10.59395/ijadis.v7i1.1481>
- Purba, R. A. (2026). Smart Network Reference Dictionary Development Using Waterfall Framework Model to Improve Learning Outcomes. *Jurnal Inovasi Pendidikan Dan Teknologi Informasi (JIPTI)*, 7(1), 65–78.
- Purba, R. A., Sembiring, D. J. M., Perangin-Angin, S. M. B., & Buaton, R. (2024). Implementasi Metode Promethee Untuk Rekomendasi Destinasi Objek Wisata Unggulan Provinsi Sumatera Utara. *JST (Jurnal Sains Dan Teknologi)*, 13(1), 181–189.
- Purba, R. A., & Sondang, S. (2022). Design and Build Monitoring System for Pregnant Mothers and Newborns using the Waterfall Model. *INTENSIF: Jurnal Ilmiah Penelitian Dan Penerapan Teknologi Sistem Informasi*, 6(1), 29–42.
- Rachmawati, M. (2026). The role of micro, small, and medium enterprises (MSMEs) in driving the local economy: An empirical study in rural areas. *Edusight International Journal of Multidisciplinary Studies*, 3(1).
- Rizvi, Y. S., Ilyaz, A., & Hadis, L. A. (2026). Entrepreneurial challenges and success among women entrepreneurs: a mixed-methods study and framework development. *Journal of Management Development*, 1–21.
- Romsumbre, E. I., Irwan, A., & Pahmi, P. (2026). Analisis Strategi Pemasaran Usaha Mikro Kecil Menengah (UMKM) Provinsi Papua Barat Daya (Studi Kasus Pelaku Umkm Orang Asli Papua Di Kota Sorong). *JURNAL LENTERA BISNIS*, 15(2), 3675–3694.
- Sari, D. N., Afrizal, M. D., & Rosmanidar, E. (2026). The role of digitalization driving transformation and performance growth of MSMes in the digital economy era. *Proceeding of Icoieb*, 2(1), 145–156.
- Tran, T.-V., Luong, A. T., Luong, D.-H., Trinh, T.-T., & Pham, H.-H. (2026). Developing a comprehensive framework for quantitative research methods in economics, business, and management. *Evaluation Review*, 0193841X261476152.