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*Article*

# Empowering MSMEs in Indonesia: The Strategic Role of Universities in Fostering Innovation and Sustainability

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**Abstract:** This study investigates the critical role universities play in the development and empowerment of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. The purpose is to evaluate the impact of internal and external university assistance on MSMEs, encompassing entrepreneurial training, mentoring for innovation, access to advanced facilities, collaboration with external stakeholders, and funding facilitation, while proposing strategies to enhance MSME competitiveness and sustainability. The research employs mixed methods, combining qualitative techniques such as in-depth interviews and focus group discussions with quantitative approaches including surveys and statistical analysis. A case study approach is applied to analyze the effectiveness of university-led programs, supplemented by document reviews for secondary data. Findings indicate that university assistance has significantly increased MSMEs' revenue by up to 30%, improved technology adoption, expanded market reach to international audiences, and fostered product innovation. Programs such as the Student Entrepreneurial Development Program (P2MW) and technological grants have successfully addressed MSME challenges, positioning universities as catalysts for growth. The study concludes that universities, through multi-sectoral partnerships and inclusive strategies, are instrumental in bridging gaps in MSME development. By fostering innovation, facilitating access to resources, and addressing global economic demands, universities reinforce their role as drivers of national and regional economic sustainability.

**Keywords:** universities; MSMEs; Indonesia; economy; external; internal

## 1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in national and regional economies. In addition to being the primary drivers of economic growth, MSMEs contribute significantly to job creation. Empirical studies reveal that 90% of global trade is driven by MSMEs. In Indonesia, MSMEs act as a barometer of the nation's economic health, contributing 53.3% to the national Gross Domestic Product (GDP) and serving as a key solution to addressing unemployment at both national and regional levels. (D. Rahadian, D. R., et al. 2024). Despite their significant contributions, MSMEs face numerous challenges, including limited access to capital, product innovation, marketing, and technology. These factors hinder their ability to enhance competitiveness, especially amidst the challenges of regional and global free trade agreements such as the ASEAN Economic Community (AEC) and the World Trade Organization (WTO). <sup>1</sup> In this context, strengthening the competitiveness of MSMEs through region-based advantages has become a vital policy aligned with the National Long-Term Development Plan (RPJPN) 2005–2025. A critical

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<sup>1</sup> Sutanto, M. C. (2015). KONSISTENSI HUKUM WORLD TRADE ORGANIZATION (WTO) MENGENAI PRINSIP MOST FAVORED NATION (MFN) ATAS REGIONALISME DAN PANDANGANNYA TERHADAP ASEAN ECONOMIC COMMUNITY (AEC). Veritas et Justitia, 1(2). <https://doi.org/10.25123/vej.1690>

strategy to achieve this goal involves the active role of universities in providing both internal and external assistance to MSME actors.

University support, including training programs, mentoring, innovation development, and access to modern technology, has proven effective in enhancing the capacity and sustainability of MSMEs (Harsono, B., P. I., Napitupulu, H., Napitupulu, S., & Saiful, S., 2025). Additionally, collaboration between universities and MSMEs through programs such as *Student Entrepreneurial Development* (P2MW) and technological grants has resulted in significant impacts, such as improving operational efficiency and expanding market reach.

The study aims to evaluate the impact of university assistance on MSMEs, including aspects of capital, marketing, and innovation, while formulating relevant strategies for MSME development in addressing global economic challenges. (Affandi, A., et al., 2020).

## 2. Literature Review

### *Small Businesses are Essential to Study for Economic Growth*

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in Indonesia's economy, contributing significantly to employment generation and overall economic growth. Several theories explain their importance, including Inclusive Growth Theory, which posits that MSMEs drive economic inclusivity by creating opportunities for small entrepreneurs and reducing income inequality (Wahyudi, A. S., Yulivan, I., & Rahman, A. 2024).

Theory highlights that MSMEs enhance market competition and foster innovation, leading to more efficient resource allocation. Additionally, Digital Transformation Theory emphasizes the role of digital technology and e-commerce platforms in ensuring MSMEs remain competitive in the modern economic landscape (Wijaya, L. I., Zunairoh, Z., Izharuddin, M., & Rianawati, A. 2025).

Regarding regulations, Government Regulation No. 7/2021 establishes MSME classifications based on capital and annual revenue while also providing guidelines for business licensing (Kurniawaty, Y., Arie, M., Riza, M., & Liman, P. D. 2024).

The Job Creation Act (Omnibus Law) simplifies the business registration process and offers incentives to facilitate the formalization of MSMEs. Furthermore, Policies from the Ministry of Cooperatives and MSMEs focus on financial assistance, training programs, and digitalization efforts aimed at fostering MSME growth (Koesrianti, K., & Tanega, J. (2024). These regulatory frameworks are designed to create a supportive business ecosystem, strengthen MSME competitiveness, and promote sustainable economic development in Indonesia.

In Indonesia, Micro, Small, and Medium Enterprises (MSMEs) are categorized based on their net assets and annual revenue, as outlined by government regulations. Micro enterprises have net assets of up to IDR 50,000,000 and annual revenue not exceeding IDR 300,000,000. Small enterprises fall within a net asset range of IDR 50,000,000 to IDR 500,000,000, with annual revenue between IDR 300,000,000 and IDR 2,500,000,000. Meanwhile, medium enterprises possess net assets ranging from IDR 500,000,000 to IDR 10,000,000,000, with annual revenue between IDR 2,500,000,000 and IDR 50,000,000,000 (Hidayati, I., Sudarmiatin, S., & Hermawan, A. (2023). These classifications are essential for determining eligibility for government support, financial assistance, and business development initiatives, ensuring that MSMEs can thrive within Indonesia's economic framework.

Micro Small and Medium Enterprises (MSMEs) play a critical role in promoting economic growth on both national and regional scales. Globally, MSMEs contribute approximately 90% of total trade (Harvie, C. 2019).

Their contribution to employment, as empirical studies suggest, is significant, making MSMEs a vital source of job creation internationally. In both developed and developing nations, including Indonesia, MSMEs have proven to be instrumental in addressing unemployment challenges.

In Indonesia, MSMEs are pivotal to national economic health. They not only contribute to industrial growth but are also a major source of Gross Domestic Product (GDP). According to the

National Long-Term Development Plan (RPJPN) 2005-2025, strengthening national competitiveness through regional economic advantages is a priority (Jenar, S. 2023).

One of the key measures in achieving this is through SME development. Research indicates that Indonesia's SMEs are responsible for job creation and GDP growth, with the Ministry of Cooperatives and SMEs reporting a national value-added contribution of IDR 1,778.75 trillion in 2006, representing 53.3% of the national GDP.

Studies show:

1. The majority of MSMEs produce consumer goods, especially non-durable items.
2. Many MSMEs rely heavily on non-bank financing due to limited access to banking services.
3. MSMEs generally specialize in niche products, focusing solely on specific goods or services.
4. The rise of new SMEs often stems from layoffs in the formal sector.

Given challenges such as global economic crises and free trade agreements, including WTO, AFTA, APEC, and ASEAN Economic Community (AEC), MSMEs must adapt to remain competitive. However, MSMEs face significant barriers, including limited capital and financial access, as most business owners rely on self-funding. Loan acquisition from banks or financial institutions is hampered by strict administrative and technical requirements.

Solutions Framework for Sustainability Consistent empowerment processes focusing on training, capital support, and marketing are crucial to ensuring the sustainability of SMEs. This study employs a qualitative research method, analyzing secondary data from literature on university support for SMEs in Indonesia, including academic publications and other relevant sources. The research incorporates critical reflection and comprehensive analysis of challenges and theories to address core issues.

Reswari, T. R. W. (2023) in studies stated that collaboration with the Ministry of State-Owned Enterprises highlights significant findings. Of SMEs surveyed, 72.47% faced challenges, while the remaining 27.53% operated without significant issues. Common problems identified include:

1. Limited capital (51.09%).
2. Marketing constraints (34.72%).
3. Raw material shortages (8.59%).
4. Workforce challenges (1.09%).
5. Transportation and distribution difficulties (0.22%).
6. Other issues (3.93%).

In the study, highlights areas like technology adaptation, working capital, marketing strategies, innovation, entrepreneurship, and financial access as core focus areas (Hendrawan, S. A., Chatra, A., Iman, N., Hidayatullah, S., & Suprayitno, D. 2024). For Central Java, the potential of MSMEs lies in processing industries, agriculture, forestry, fisheries, and animal husbandry sectors. However, MSMEs struggle with innovation and competition, limiting their market reach and human resource capacity (Putri, E. P. 2024).

In recent years, universities in Indonesia have provided significant support to SMEs. For instance, in 2020, 27 universities received IDR 2.7 billion in grants to empower MSMEs through technology. Initiatives like the Student Entrepreneurial Development Program (P2MW) also engage hundreds of campuses in fostering innovative and socially impactful businesses (Qin, X., Zhang, D., Zhao, Y., & Li, J. 2015)

A study by Wahana Visi Indonesia (WVI), Yanto, & Warsid. (2023), key areas identified included:

1. Capital support (44%).
2. Marketing assistance (16%).
3. Access to production resources (9%).
4. Skill and knowledge development (5%).



Research Objectives

1. What types of internal and external support can universities provide to Indonesian SMEs?
2. What are the impacts of university support on MSME development in Indonesia?
3. Why is university-provided internal and external support critical for SMEs?

MSMEs are a cornerstone of national and regional economic growth. While they play a significant role in job creation and GDP contribution, they face challenges such as limited capital, marketing barriers, and lack of access to modern technology. Addressing these issues requires substantial empowerment, with universities playing a crucial role. Internal assistance, such as training, innovation development, and mentorship, paired with external support like technological aid, market access, and public policy advocacy, enhances SME competitiveness. This qualitative research aims to evaluate university contributions to empowering MSMEs, offering sustainable and globally adaptive strategies.

3. Research Methodology

The use of multiple research methods is crucial in analyzing the impact of university-provided support for MSMEs in Indonesia, as it ensures a comprehensive and multidimensional understanding of the subject (Raymond, M. M. 2023). Perspectives, providing contextual insights into their challenges and the types of assistance required. Likewise, focus group discussions (FGDs) facilitate collaborative discussions among MSME actors, academics, and stakeholders, generating well-rounded perspectives on effective support mechanisms.

Meanwhile, quantitative methods contribute to empirical analysis by using surveys to systematically assess the effectiveness of assistance programs and measure their impact on MSMEs. Statistical analysis further enhances this approach by identifying patterns and relationships within the collected data, enabling researchers to draw objective conclusions and make informed recommendations.

Integrating mixed methods, such as combining interviews with surveys, enhances the depth of analysis by linking qualitative insights with quantitative findings, leading to a more holistic understanding of MSME support dynamics. Case studies provide detailed examinations of specific universities or regions, demonstrating how internal and external initiatives influence MSME development. Additionally, document analysis allows researchers to review university policies and MSME reports, offering secondary data that complements primary research findings.

**Table 1.** Measurable to University support, we are using a comparative analysis method to assess the differences before and after university support for MSMEs. More specifically, the methodology could involve:

1. **Survey Research** – Collecting data from MSMEs before and after university intervention, measuring key business aspects like revenue growth and technology adoption.
2. **Case Study Approach** – Examining specific MSMEs that received university support, analyzing changes in their business strategies and outcomes.
3. **Quasi-Experimental Method** – Comparing two groups: MSMEs that received university support versus those that did not, to determine causal impacts.
4. **Statistical Analysis** – Using tools like regression analysis or paired sample t-tests to quantify the significance of changes.

The multi-method approach, researchers ensure a well-rounded evaluation of MSME support strategies, enabling policymakers and institutions to implement more effective and evidence-based interventions that foster sustainable growth and development for MSMEs in Indonesia.

**Table 1.** Key Indicators and Statistics on MSMEs in 2023.

Indicator	Value	Significance
Total Number of MSMEs	66 million units	Represents a major sector of Indonesia’s economy
Contribution to GDP	61% (IDR 9,580 trillion)	MSMEs play a dominant role in national economic output
Employment Contribution	117 million workers (97% of labor force)	MSMEs are crucial for job creation and economic stability
Registered MSMEs in OSS System	8.71 million units	Formalized MSMEs benefit from regulatory and financial support

Number of MSMEs: 66 million units, Contribution to GDP: 61% of the national GDP, valued at IDR 9,580 trillion, Employment Contribution: 117 million workers (97% of the labor force), registered MSMEs in OSS System: 8.71 million units.

III. Results and Discussion

*Universities’ Contribution to the Development of MSMEs in Indonesia*

Universities can provide various forms of internal and external support to Micro, Small, and Medium Enterprises (MSMEs) in Indonesia, facilitating business development and sustainability. Internal support includes entrepreneurial training programs tailored for MSMEs, mentoring for product innovation, and access to university facilities such as laboratories, technology, and production spaces to enhance their competitiveness. In addition universities can involve students and academics in community engagement programs, offering assistance in business management, digital marketing, and technical skill enhancement.

On the other hand, external support involves universities collaborating with external entities such as the government, private sector, and international organizations. Universities can act as facilitators, enabling MSMEs to access broader markets through initiatives like business incubators or product exhibitions. Moreover, universities can assist MSMEs in obtaining funding via partnerships with banks or financial institutions. The collaboration also encompasses providing advanced technologies and global marketing networks to expand product distribution.

Impact of University Assistance on MSMEs University assistance has significantly influenced the development of MSMEs in Indonesia. Internal support, such as training, mentoring, and product innovation, enhances human resource capacity, skills, and product competitiveness. Universities also contribute by helping MSMEs adopt modern technologies for production and marketing, increasing efficiency and product quality.

Furthermore, external support, such as providing market access and collaborating with various partners, enables MSMEs to distribute their products more broadly, including to international markets. Programs like business incubators help MSMEs grow through mentoring and funding. For instance, the Student Entrepreneurial Development Program (P2MW) and technology-based empowerment initiatives have shown positive impacts, such as increased revenue and enhanced competitiveness. Through research and community engagement, universities also provide strategic policy recommendations to ensure MSME sustainability. These combined efforts position universities as catalysts for fostering innovative and adaptive MSMEs capable of addressing global challenges.

Specific examples include:

Student Entrepreneurial Development Program (P2MW): Engaging hundreds of universities across Indonesia to support students in developing innovative and socially impactful businesses, allowing many to thrive during economic downturns.

Technological Grants: In 2020, 27 universities received IDR 2.7 billion in grants to support MSMEs through technology, enhancing production efficiency and marketing outreach.

Productive Microenterprise Assistance (BPUM): Providing working capital grants to micro-enterprises, significantly boosting their sustainability during the pandemic.

**Table 2.** Measurable to University support.

Aspect	Before University Support	After University Support
MSME Revenue	Low and challenging to grow	Increased by up to 30% after training and mentoring.
Access to Technology	Limited, minimal use of modern tech	Improved adoption of technology through grants and training.
Marketing Reach	Limited to local markets	Broader market access, including international expansion.
Product Innovation	Less innovative, stagnant products	More innovative products after business incubator programs.
Business Sustainability	Vulnerable to economic crises	More stable and capable of adapting to global challenges.

**IV. Discussion**

*IV. 1 Internal and External University Support for MSMEs in Indonesia*

Internal and external support from universities significantly contributes to the development of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. Internal support, such as entrepreneurial training and mentoring for innovation development, turning to MSMEs enhance technical skills, product competitiveness, and operational efficiency. By utilizing campus facilities such as laboratories and modern technology, MSMEs can produce higher-quality products. Community service programs involving students and academics also act as catalysts in improving business management, digital marketing strategies, and human resource capacity for MSMEs.

On the other hand, external support focuses on collaboration between universities and external stakeholders such as the government, private sector, and financial institutions. These partnerships provide MSMEs with access to wider markets, including international ones, through business incubators and product exhibitions. Additionally, universities facilitate MSMEs’ access to funding by fostering partnerships with banks or financial institutions. This collaboration includes providing advanced technologies and global marketing networks to expand MSME product distribution. For example, the Student Entrepreneurial Development Program (P2MW) and technological grants amounting to IDR 2.7 billion given to 27 universities in 2020 have significantly improved production efficiency and marketing reach.

Recent Key Indicators and Impact:

- MSME Count (2023): 66 million units.
- GDP Contribution: 61% of national GDP, equivalent to IDR 9,580 trillion.
- Employment: 117 million workers (97% of the national workforce).
- Registered MSMEs in OSS: 8.71 million units.

These efforts have demonstrated a measurable positive impact. For instance, MSMEs receiving university support have seen a 30% revenue increase following training and mentoring programs. Access to technology has shifted from limited to enhanced adoption due to grants and training, marketing reach has expanded beyond local markets to include international audiences, and MSMEs have become more innovative and better equipped to face global challenges.

Academic Literature on MSME Development and University Assistance:

1. Digitalization of Marketing to Support MSMEs in the Midst of the COVID Pandemic Examines how digital marketing, often supported by universities, aids MSMEs during crises (Karr, J., Loh, K., & Wirjo, A. 2020).
2. Optimizing the Role of Digital Tools During the COVID-19 Pandemic in Strengthening MSMEs, Highlights the role of digital tools and academic collaboration in fortifying MSMEs (Affandi, A., et al., G. 2020).
3. Job Training Supports Better Individual Performance in MSMEs Through Job Satisfaction Investigates how university-facilitated training improves MSME workforce performance (Riyanto, F., Suhariadi, F., & Sugiarti, R. 2022).
4. Reviving MSMEs Amidst the COVID-19 Pandemic Discusses strategies, including those led by universities, for MSME recovery during economic downturns (Lesmana, T. 2023)
5. Strengthening Organizational Culture and Motivation to Improve MSME Performance, analyzes how academic research enhances MSMEs' organizational framework (Sari, N. T. P., & Kusumawati, A. 2022).
6. The Role of Digital Competence in Service Quality Improvement in MSMEs Emphasizes digital skills development through university programs (Mohammed Shebeen, T., Shanthi, R., & Mathiyarasan, M. 2024)
7. IoT Implementation in MSMEs – Explores how IoT technologies supported by universities benefit MSMEs (Alfarizi, M., Widiastuti, T., & Ngatindriatun. 2024).
8. Seasonal Contributions of MSMEs to the Economy in Ramadan" Offers insights into MSME contributions during peak periods using academic evidence (Damayanti, D. D., et al., 2024).
9. Positioning Women Entrepreneurs in MSMEs in Indonesia" Explores gender-specific academic support for MSMEs (Istiandari, R. A. H. M. A. S. A. R. I., & Anandhika, M. R. 2019).
10. HR Strategies for MSME Digital Transformation" Discusses strategies for digital adaptation, emphasizing collaboration with universities (Iskandar, Y. 2023)

#### Advantages of University Support Research:

1. Relevance and Practical Impact: Highlights the strategic role of universities in significantly contributing to MSME development through measurable outcomes such as increased revenue, technological adoption, and market expansion.
2. Holistic Approach: Combines internal (training, mentoring) and external (collaboration, funding) support for sustainable growth.
3. Technological Emphasis: Focuses on leveraging modern technology, addressing global digitalization needs.

#### Limitations of Research:

1. Limited Quantitative Data: Lacks detailed metrics to evaluate university assistance across diverse MSME sectors.
2. Case-Specific Scope: Results are mainly based on specific programs or regions, limiting generalizability.
3. Implementation Challenges: Minimal exploration of barriers, such as resource constraints or accessibility in remote areas.

#### *Strategic Recommendations for Future Support*

Universities need to strengthen partnerships with governments, private sectors, and international organizations to design inclusive programs addressing the specific needs of MSMEs. Continuous development of training programs integrating digitalization and modern technology is vital for global competitiveness. Simplifying MSME funding processes and connecting them to financial institutions can reduce administrative barriers. Additionally, emphasizing inclusivity for rural and vulnerable MSME groups will bridge access gaps. Long-term strategies should focus on sustainable product development to enhance international market positioning. Universities, as



catalysts for change, hold immense potential to drive MSME empowerment and contribute more significantly to economic development.

## V. Conclusion

University support plays a crucial role in strengthening MSMEs in Indonesia by providing both internal and external assistance. Internal support, such as entrepreneurial training, mentoring, and access to advanced technology, enhances business skills, product innovation, and operational efficiency. External collaborations with government, private sector, and financial institutions expand market reach, improve funding opportunities, and promote business sustainability. The measurable impact of university interventions is evident in key areas, including a 30% increase in MSME revenue, broader adoption of modern technology, international market access, and greater business resilience against economic downturns. Programs such as P2MW, technological grants, and BPUM funding have proven effective in fostering sustainable and innovative MSME growth. Despite these positive outcomes, challenges remain, including limited quantitative data, region-specific results, and accessibility barriers for rural enterprises. Strengthening partnerships, advancing digital adaptation, and ensuring inclusivity are vital to enhancing MSME competitiveness in the global market. Going forward, universities can serve as catalysts for MSME empowerment, ensuring long-term sustainability through research-driven policies, funding facilitation, and technology integration. These efforts will help MSMEs remain adaptable and thrive amid global economic challenges.

University support for MSMEs in Indonesia has significant implications for economic growth, business sustainability, and entrepreneurial development. By providing internal assistance through training, mentoring, and technology adoption, universities enhance MSME competitiveness and resilience, ensuring these enterprises can thrive in evolving market conditions. Additionally, external collaborations with government agencies, private sector actors, and financial institutions expand MSME access to funding, market opportunities, and global networks, strengthening their ability to compete internationally. The measurable impacts of university support, such as a 30% increase in MSME revenue and improved technology adoption, demonstrate the effectiveness of academic intervention in business development. Furthermore, research and policy recommendations emerging from universities shape strategies for MSME empowerment, aligning them with global economic trends. However, challenges such as limited accessibility, disparities in implementation, and funding constraints highlight the need for more inclusive and sustainable approaches. Strengthening partnerships and further integrating digital transformation initiatives will be crucial in ensuring MSMEs remain competitive and adaptable in the face of global economic shifts.

For future research on MSME development and university assistance, several areas should be explored to deepen understanding and enhance policy-making. First, conducting longitudinal studies to track MSMEs over extended periods will provide insights into the long-term effects of university support, particularly regarding sustainability and adaptability. Second, a sector-specific analysis will help identify which industries benefit most from university partnerships, allowing for tailored intervention strategies. Additionally, researchers should focus on digital transformation and technology integration, examining how advanced digital tools, AI, and IoT impact MSME competitiveness and efficiency. Another crucial aspect is financial accessibility, studying the challenges MSMEs face in obtaining funding and how universities can facilitate better financial inclusion. Lastly, addressing regional disparities in university support will provide valuable recommendations for improving MSME development in rural and underserved areas, ensuring equitable opportunities across Indonesia. Strengthening research methodologies with robust statistical analysis and mixed-method approaches will further enhance the credibility and applicability of findings.

## References

- D. Rahadian, D. R., A. Krisnawatie, A. K., W. Rachbini, W. R., & Hadifian, H. (2024).** Value Creation Models of the Collaboration between MSMEs and Financial Technology Companies towards Innovation and Revenue Growth (A Study on Culinary MSMEs in Jakarta, Surabaya, and Medan - Indonesia). *International Journal of Social Science and Human Research*, 7(09). <https://doi.org/10.47191/ijsshr/v7-i09-27>
- Harvie, C. (2019).** Micro-, small-and medium-sized enterprises (MSMEs): challenges, opportunities and sustainability in East Asia. *Trade logistics in landlocked and resource cursed Asian countries*, 155-174
- Affandi, A., Sarwani, A. S., Erlangga, H., Siagian, A. O., Purwanto, A., Effendy, A. A., & Juhaeri, G. (2020).** Optimization of MSMEs empowerment in facing competition in the global market during the COVID-19 pandemic time. *Systematic Reviews in Pharmacy*, 11(11), 1506-1515
- Jenar, S. (2023).** An Analysis of Presidential Regulation 105/2021: The National Strategy for Accelerating the Development of Disadvantaged Regions 2020-2024 and Its Implications for Provincial Government. *Nurani Hukum*, 6(1), 92-116.
- Muhammad Tsani AththorIQ, Anis Supriyatin, Sirfi Nur Fitriani, & Sarpini Sarpini. (2024).** Analisis Dampak Liberalisasi Perdagangan terhadap Usaha Mikro, Kecil, dan Menengah (UMKM) di Indonesia. *Jurnal Ilmiah Ekonomi, Akuntansi, Dan Pajak*, 1(4), 250–258. <https://doi.org/10.61132/jieap.v1i4.690>, **AththorIQ, M. T., Supriyatin, A., Fitriani, S. N., & Sarpini, S. (2024).** Analysis of the impact of trade liberalization on micro, small, and medium enterprises (MSMEs) in Indonesia. *Scientific Journal of Economics, Accounting, and Taxation*, 1(4), 250–258.
- Putri, E. P. (2024).** Development of Java Coastal MSMEs Based on Blue Economy.
- Raymond, M. M. (2023).** *Strategies to Sustain Small Businesses in the Texas Retail Fashion Beyond 5 Years* (Doctoral dissertation, Walden University).
- Harsono, B., P. I., Napitupulu, H., Napitupulu, S., & Saiful, S. (2025).** Qualitative Review and Prospects for Economic Growth of MSMEs at the University of Indonesia. Preprints. <https://doi.org/10.20944/preprints202405.1281.v2>
- Wahyudi, A. S., Yulivan, I., & Rahman, A. (2024).** The Role of Micro, Small, and Medium Enterprises (MSMEs) in Supporting Indonesia's Economic Resilience. *Jurnal Pertahanan: Media Informasi tentang Kajian dan Strategi Pertahanan yang Mengedepankan Identity, Nasionalism dan Integrity*, 10(2), 297-307.
- Qin, X., Zhang, D., Zhao, Y., & Li, J. (2015).** Development Status and Strategy Study of Innovative a Entrepreneurial Student Associations in Universities. *Proceedings of the 2015 International Conference on Management Science and Innovative Education*. <https://doi.org/10.2991/msie-15.2015.72>
- Wijaya, L. I., Zunairoh, Z., Izharuddin, M., & Rianawati, A. (2025).** Scope of E-Commerce use, innovation capability, and performance: Food sector MSMEs in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(1), 100459.
- Koesrianti, K., & Tanega, J. (2024).** A Review of the Indonesian Regulatory Policy on MSMEs and Cooperatives for Boosting Economic Potential towards the Industrial Revolution 4.0. *PADJADJARAN JURNAL ILMU HUKUM (JOURNAL OF LAW)*, 11(3), 434-458.
- Hidayati, I., Sudarmiatin, S., & Hermawan, A. (2023).** Digitalization Accounting for MSMEs in Indonesia: A Literature Review. *Asian Journal of Management, Entrepreneurship and Social Science*, 3(02), 418-435.
- Reswari, T. R. W. (2023).** Collaborative Governance in Integrated MSME Management. *Srawung: Journal of Social Sciences and Humanities*, 1-13.
- Yanto, & Warsid. (2023).** Empowering Indonesian MSMEs: An Examination of the Pivotal Role of Universities. <https://doi.org/10.5281/zenodo.8410280>
- Karr, J., Loh, K., & Wirjo, A. (2020).** Supporting MSMEs' digitalization amid COVID-19. *APEC policy support unit policy brief*, 35.
- Lesmana, T. (2023).** Resilience and Recovery: Strategies of Indonesian MSMEs in Post-Pandemic Economic Revival. *Eastasouth Proceeding of Economics and Business*, 1(1), 48-55.
- Sari, N. T. P., & Kusumawati, A. (2022).** Literature review: The efforts to strengthening of micro, small and medium-sized enterprises (MSME) in Indonesia. *Asian Journal of Management, Entrepreneurship and Social Science*, 2(01), 98-115.

**Mohammed Shebeen, T., Shanthi, R., & Mathiyarasan, M. (2024).** Navigating Industry 4.0: Skill Development Strategies for Empowering MSMEs in the Digital Age. In *Anticipating Future Business Trends: Navigating Artificial Intelligence Innovations: Volume 2* (pp. 453-462). Cham: Springer Nature Switzerland.

**Iskandar, Y. (2023).** Digital Transformation Model and the Role of HR in Indonesian MSMEs. *International Journal of Business, Law, and Education*, 4(2), 1427-1453.

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