MALAYSIAN JOURNAL OF COMPUTING AND APPLIED MATHEMATICS (2026) 9 (1) 63-71

DOI: *https://doi.org/10.37231/myjcam.2026.9.1.174*

Article: Received 02.07.2025; Accepted 14.01.2026; Published 31.03.2026

QUANTITATIVE ANALYSIS OF DIGITAL CAPABILITY AND VALUE CREATION ON ECONOMIC VALUE ADDED (EVA) PERFORMANCE OF WHITE TEA MSMES IN WEST JAVA

Sheila Najla Syahirah

Graduate Program in Sustainability Science, Universitas Padjadjaran, Indonesia
sheila20003@mail.unpad.ac.id

Abstract: This study examines the influence of digital capability and value creation on the financial performance of white tea micro, small, and medium enterprises (MSMEs) in West Java using a quantitative survey-based research design. Data were collected from 30 MSMEs across six major white tea–producing regions and analyzed using descriptive statistics, correlation analysis, and multiple linear regression. Financial performance was assessed using the Economic Value Added (EVA) framework, while digital capability and Creating Shared Value (CSV) practices were measured through composite survey indices. The results indicate that MSMEs with higher digital capability achieved significantly better financial outcomes, as evidenced by a strong positive correlation between digital capability and EVA ($r = 0.74$, $p < 0.01$). Regression analysis shows that digital capability has the strongest effect on EVA performance ($\beta = 0.63$, $p < 0.01$), followed by CSV practices ($\beta = 0.39$, $p < 0.05$), with the model explaining 62% of the variance in EVA (adjusted $R^2 = 0.62$). Average EVA values varied across regions, ranging from IDR 24.5 million in digitally advanced areas to IDR 6.3 million in regions with limited digital adoption. These findings demonstrate that digital capability is a critical driver of economic value creation among rural agro-based MSMEs. The study provides empirical evidence to support policy interventions and managerial strategies that prioritize digital transformation and shared value integration to enhance the sustainability and competitiveness of niche agricultural enterprises.

Keywords: Value creation, EVA, digital capability, public policy, MSMEs, white tea, sustainability.

1. INTRODUCTION

The sustainable agriculture sector has gained increasing attention due to its potential to generate economic value while preserving ecological resilience, particularly in niche commodities such as white tea [1]. White tea is characterized by minimal processing, high antioxidant content, and premium market positioning, making it a high-value agricultural product within the functional beverage industry [2]. In Indonesia, especially in West Java, white tea production is largely undertaken by micro, small, and medium enterprises (MSMEs), which play a crucial role in rural employment and local value chains. Despite favorable agroecological conditions, the economic performance of white tea MSMEs remains highly heterogeneous, indicating structural challenges beyond natural resource availability [3].

From a production and operational perspective, white tea MSMEs face significant physical and managerial constraints, including high production costs, limited processing technology, small plantation scale, and restricted access to high-value markets [4]. These constraints directly affect productivity efficiency, capital utilization, and profitability. Unlike mass-produced black or green tea, white tea requires selective harvesting and careful handling, which increases labor intensity and cost per unit output. Consequently, MSMEs operating in this sector must generate sufficient economic value to compensate for higher operational risks and capital requirements [5].

Value creation has therefore become a central concept in assessing the sustainability of agro-based MSMEs. Beyond conventional profit measures, firms are increasingly evaluated based on their ability to create long-term economic value while maintaining social and environmental viability [6]. The CSV framework emphasizes that competitiveness and community welfare can be mutually reinforcing, particularly

in rural production systems. However, empirical evidence on how value creation translates into measurable financial performance in small-scale agricultural enterprises remains limited, especially for niche commodities such as white tea.

In parallel, digital capability has emerged as a critical operational factor influencing MSME performance. Digital capability refers to the ability of firms to adopt, integrate, and utilize digital tools—such as e-commerce platforms, digital marketing, and electronic payment systems—to enhance efficiency and market reach [7]. In physical terms, digital integration reduces transaction frictions, shortens supply chains, and improves information flow between producers and consumers. For white tea MSMEs, which rely on product differentiation, traceability, and premium branding, digital capability can significantly affect revenue generation and capital efficiency [8].

To evaluate whether MSMEs truly generate economic surplus from these strategic capabilities, robust financial performance metrics are required. The EVA provides a quantitative measure of value creation by accounting for both operating profit and the cost of capital [9]. Unlike traditional accounting ratios, EVA reflects whether a firm generates returns exceeding its capital costs, making it particularly suitable for assessing long-term financial sustainability. However, the application of EVA in rural MSMEs remains rare due to data limitations and limited empirical investigation in developing country contexts.

Based on these considerations, this study aims to empirically examine the relationship between digital capability, value creation, and financial performance among white tea MSMEs in West Java. The specific research objectives are: (1) to measure the level of digital capability and shared value practices among white tea MSMEs; (2) to assess MSME financial performance using the EVA framework; and (3) to analyze the effect of digital capability and value creation on EVA performance. Accordingly, the study addresses the following research questions: *Does digital capability significantly influence EVA performance?* and *Do shared value practices contribute to economic value creation in white tea MSMEs?* Based on prior literature, it is hypothesized that higher digital capability and stronger CSV practices positively affect EVA.

This research contributes to the literature by providing quantitative evidence on how strategic capabilities translate into measurable economic value within niche agricultural MSMEs. By focusing on white tea producers in West Java, the study extends existing MSME and digital transformation research into underexplored rural and agro-based contexts. The findings are expected to inform both academic discussions on value creation metrics and practical strategies for improving MSME competitiveness and sustainability.

2. LITERATURE REVIEW

The growing role of MSMEs in sustainable agriculture has received increasing attention in development studies. MSMEs are central to rural employment and local value chains, particularly in emerging markets. However, their capacity to compete in premium segments such as health-based agricultural commodities remains constrained by limited resources, institutional voids, and inconsistent policy environments.

2.1. *Value Creation and Creating Shared Value (CSV)*

Value creation refers to a firm's ability to generate economic benefits by efficiently utilizing its resources, capabilities, and strategic positioning to deliver products or services that exceed their cost of production [10]. In the context of MSMEs, particularly in agro-based sectors, value creation is not only reflected in short-term profits but also in the firm's capacity to sustain operations, optimize capital use, and enhance competitiveness over time. Traditional approaches to value creation often focus on financial outcomes alone; however, such perspectives may overlook structural factors such as community involvement, environmental sustainability, and long-term market resilience, which are especially relevant for rural enterprises.

The CSV extends the concept of value creation by integrating social and environmental considerations into core business strategies, rather than treating them as peripheral or philanthropic activities [11]. CSV emphasizes that firms can improve their economic performance by addressing societal challenges, such as rural livelihood development, sustainable resource management, and product health benefits. For agro-based MSMEs, CSV can materialize through fair labor practices, environmentally responsible production, and collaboration with local communities, all of which enhance product differentiation and consumer trust. Empirical studies suggest that such shared value practices can strengthen market positioning and contribute

indirectly to financial performance, making CSV a strategic mechanism for achieving both economic and social sustainability.

2.2. *Digital Capability and MSME Competitiveness*

Digital capability refers to the ability of MSMEs to adopt, integrate, and effectively utilize digital technologies to support operational efficiency, market access, and strategic decision-making [12]. This capability encompasses the use of digital platforms for marketing, e-commerce, payment systems, and information management, as well as the digital literacy of human resources within the firm. From an operational standpoint, digital capability reduces transaction costs, shortens supply chains, and improves the speed and accuracy of information flow between producers, intermediaries, and consumers. For MSMEs, particularly those operating in rural or niche agricultural sectors, these efficiencies are critical for overcoming scale limitations and market entry barriers.

Digital capability also plays a decisive role in enhancing MSME competitiveness by enabling product differentiation, customer engagement, and market expansion. Through digital branding, traceability systems, and direct-to-consumer sales channels, MSMEs can access higher-value markets and strengthen customer trust. Empirical evidence indicates that MSMEs with stronger digital capability tend to exhibit higher productivity, innovation capacity, and financial performance compared to less digitized firms [13]. In competitive environments where price-based competition is unfavorable, digital capability allows MSMEs to compete on quality, transparency, and responsiveness, thereby improving their long-term sustainability and resilience.

2.3. *Financial Sustainability and Economic Value Added (EVA)*

Financial sustainability is to a firm's ability to maintain stable operations, meet its financial obligations, and generate sufficient returns to support long-term growth [14]. For MSMEs, particularly in agro-based sectors, financial sustainability is challenged by seasonal income patterns, high production risks, and limited access to external financing. Conventional financial indicators such as profit margins or liquidity ratios often fail to capture whether a business truly generates economic surplus, as they do not account for the cost of capital employed. Consequently, a more comprehensive financial performance measure is required to assess the long-term viability of MSMEs.

The EVA provides a robust framework for evaluating financial sustainability by measuring the residual income generated after deducting the full cost of capital from operating profits [15]. EVA is calculated as NOPAT minus the product of capital employed and the WACC. A positive EVA indicates that a firm creates economic value beyond its financing costs, while a negative EVA signals value erosion. In the context of MSMEs, EVA enables clearer differentiation between profitable operations and true value creation, offering a practical tool for assessing investment efficiency, guiding strategic decisions, and supporting sustainable financial management in resource-constrained environments.

2.4. *Public Policy and Institutional Support*

Public policy and institutional support play a crucial role in shaping the development and sustainability of MSMEs, particularly in rural and agriculture-based sectors. Government interventions such as access to finance, infrastructure development, capacity-building programs, and regulatory facilitation are intended to reduce structural constraints faced by MSMEs and improve their competitiveness [16]. In physical and operational terms, effective institutional support can lower entry barriers, enhance production efficiency, and improve market connectivity. However, the impact of such policies often varies across sectors and regions, depending on the alignment between policy design and the specific needs of MSMEs.

In many developing economies, institutional support for MSMEs tends to adopt a generalized approach that may not adequately address the unique characteristics of niche commodities or rural enterprises [17]. As a result, policy outcomes may be limited when support mechanisms do not consider factors such as production scale, technological readiness, or market orientation. Empirical studies suggest that while institutional support can facilitate initial business development, its contribution to long-term financial performance is less effective without complementary firm-level capabilities, such as digital readiness and strategic value creation. This highlights the importance of integrating public policy with enterprise-level strategies to ensure that institutional interventions translate into measurable economic outcomes.

3. METHODOLOGY

This study adopts a quantitative survey research design aimed at evaluating the relationship between digital capability, value creation, and financial performance among MSMEs engaged in white tea production. The approach focuses on collecting numerical data through structured instruments to allow for statistical analysis and generalizable insights within the specific context of agro-based MSMEs in West Java.

The research population consists of MSMEs operating in the specialty tea sector across six main regions: Pangalengan, Ciwidey, Sukabumi, Cianjur, Garut, and Tasikmalaya. These areas were selected based on their known engagement in white tea cultivation and processing, as documented through preliminary field studies and government agricultural records. A purposive sampling technique was employed to identify MSMEs that meet three criteria: (1) active white tea production, (2) legal business status, and (3) willingness to disclose financial and digital operational data. A total of 30

MSMEs were selected as respondents for the study. Data were collected using a structured questionnaire consisting of three main sections:

Digital Capability, measured through indicators such as platform adoption (e.g., e- commerce, payment gateways), digital skills training, and extent of online market reach. Value Creation, assessed through items reflecting CSV indicators such as community impact, environmental initiatives, and product innovation. Business Performance, measured using financial indicators and calculated through the EVA method. The Digital Capability Index is constructed as a composite score based on responses to Likert-scale items (1 = Strongly Disagree to 5 = Strongly Agree). Indicators are grouped into three dimensions:

1. Technology Usage (e.g., type and frequency of platform use)
2. Digital Literacy (e.g., internal training, staff digital skills)
3. E-commerce Penetration (e.g., percentage of online sales, customer digital feedback)
4. EVA is used to evaluate financial sustainability. The formula is as follows: EVA = NOPAT − (Capital Employed × WACC)

Where:
NOPAT (Net Operating Profit After Tax) is derived from MSME financial records.

Capital Employed is calculated as total assets minus current liabilities. The WACC is estimated based on prevailing market rates and business financing structure. Data analysis was conducted using descriptive statistics, correlation analysis, and multiple linear regression to determine the relationship between digital capability, value creation, and financial performance. All statistical processing was performed using SPSS 26.0. This methodological approach enables a robust and empirical investigation into the role of digital and financial strategies in supporting sustainable development among white tea MSMEs in rural Indonesia.

The sample size of 30 MSMEs was determined based on the limited population of active white tea producers in West Java that met the predefined criteria; while sufficient for exploratory quantitative analysis, this sample size is recognized as a limitation in terms of statistical generalizability. The estimation of the WACC assumes a simplified capital structure commonly observed in MSMEs, where financing is dominated by owner equity and bank loans; the cost of debt was approximated using prevailing MSME lending rates, while the cost of equity was inferred from expected returns in the agricultural sector. Instrument reliability was assessed using Cronbach's alpha, with all composite constructs exceeding the acceptable threshold of 0.70, indicating internal consistency. Construct validity was evaluated through item–total correlations and factor loading analysis, confirming that all measurement items were statistically valid and suitable for subsequent regression analysis.

4. RESULT AND DISCUSSION

4.1 *Descriptive Statistics*

Descriptive analysis was conducted on 30 MSMEs engaged in white tea production across six regions in West Java. The average plantation size was 12.8 hectares, with an average annual production of 1,916 kg of white tea. Most respondents (80%) operated in Pangalengan and Ciwidey, confirming the dominance of Bandung Regency in this niche commodity. Only 37% of MSMEs reported having consistent access to government assistance or public programs tailored for high-value tea.

On digital capability, the mean composite index was 0.62, indicating moderate adoption of digital technologies. While 76% of MSMEs used WhatsApp and social media for promotions, only 33% maintained e-commerce platforms, and fewer than 20% used digital payment systems. Staff digital literacy levels varied widely, particularly in rural areas such as Tasikmalaya and Garut, where formal training was rare.

4.2. *Economic Value Added (EVA) Analysis*

The EVA is used in this study as a key indicator of financial performance and business sustainability for white tea MSMEs. EVA represents the residual income generated after accounting for the cost of capital. It provides insight into whether a business is truly adding economic value through its operations.

EVA Formula:
EVA = NOPAT − (Capital Employed × WACC) Where:

The NOPAT is the company's operating profit adjusted for taxes, derived from MSME financial statements. Capital Employed is the total capital invested in the business, calculated as total assets minus current liabilities. The WACC is the expected return required by investors, estimated based on current lending rates and equity expectations for MSMEs in the agriculture sector. The EVA Calculation can be seen in Table 1.

Table 1: EVA Calculation

Component	Value (IDR)
Operating Profit (EBIT)	64,000,000
Tax Rate	10%
NOPAT	57,600,000
Capital Employed	280,000,000
WACC	14%
EVA	18,400,000

$$\mathbf{EVA=57,600,000 - (280,000,000\times0.14) =57,600,000-39,200,000=18,400,000}$$

This positive EVA indicates that CV Mina Imani Mulia generated a return above its cost of capital, reflecting economic value creation. The Summary of EVA Across MSMEs can be seen in Table 2.

Table 2: Summary of EVA Across MSMEs

Region	Average EVA (IDR)	Digital Index	CSV Score	Remarks
Pangalengan	24,500,000	0.76	High	Strong digital and CSV integration
Ciwidey	22,800,000	0.72	High	High elevation and strong branding
Sukabumi	15,300,000	0.59	Medium	Some e-commerce adoption
Cianjur	13,500,000	0.55	Medium	Moderate offline performance
Garut	9,400,000	0.48	Low	Limited tech and financial literacy
Tasikmalaya	6,300,000	0.42	Low	Marginal profitability, weak support

MSMEs with higher digital capability and shared value practices consistently generated higher EVA scores, indicating that strategic investments in digital and social initiatives yield measurable financial benefits. Underperforming regions (e.g., Garut, Tasikmalaya) suffered from limited market access, lack of digital integration, and weak brand positioning, contributing to lower EVA. EVA offers a practical tool to help

MSMEs assess the effectiveness of strategic decisions and justify investments to stakeholders, lenders, or policymakers.

4.3. *Correlation and Regression Analysis*

Pearson correlation results indicated a strong positive correlation between digital capability and EVA ($r = 0.74$, $p < 0.01$), and a moderate correlation between CSV practices and EVA ($r = 0.57$, $p < 0.05$). These findings suggest that MSMEs that actively integrate digital tools and shared value strategies are more likely to generate surplus returns above their cost of capital.

A multiple linear regression model was developed with EVA as the dependent variable and digital capability, CSV score, and government support as independent variables. The model yielded an adjusted R^2 of 0.62, indicating that 62% of the variance in EVA performance could be explained by these predictors. Digital capability had the strongest standardized coefficient ($\beta = 0.63$, $p < 0.01$), followed by CSV ($\beta = 0.39$, $p < 0.05$), while government support was not statistically significant ($\beta = 0.11$, $p = 0.18$). The multiple linear regression results on MSME can be seen in Table 3.

Table 3: Multiple Linear Regression Results on MSME

Variable	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t-Value	Sig. (p-value)
Digital Capability	2.47	0.55	0.63	4.49	0.000
CSV Practices	1.31	0.48	0.39	2.73	0.011
Government Support	0.42	0.30	0.11	1.40	0.172
Constant	5.75	2.10	-	2.74	0.010

Figure 1 illustrates the relative influence of three independent variables Digital Capability, CSV Practices, and Government Support on the financial performance of white tea MSMEs as measured by EVA. The Beta values represent the strength and direction of each variable's contribution, with higher values indicating greater explanatory power within the regression model. As shown, Digital Capability has the strongest impact, with a standardized Beta coefficient of 0.63, signifying a robust positive relationship with EVA.

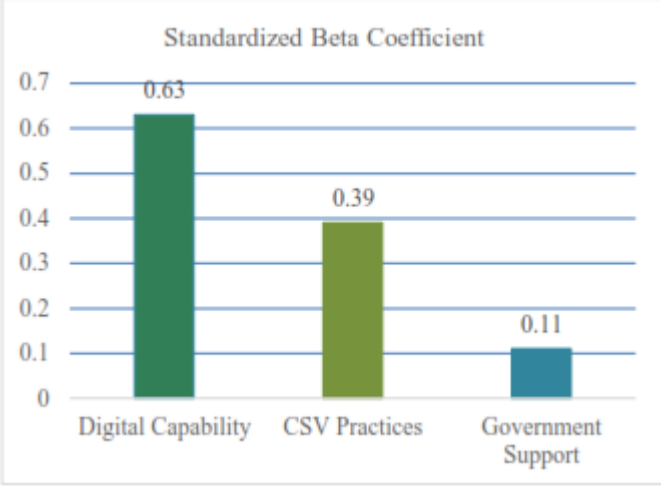

Figure 1: Standardized Coefficients (Beta) from Regression Analysis

This suggests that MSMEs with greater integration of digital tools—such as e- commerce platforms, online payment systems, and digital marketing—tend to achieve better financial outcomes. CSV Practices ($\beta = 0.39$) also demonstrate a significant and positive effect, highlighting the relevance of shared value strategies, such as community involvement and sustainable production, in driving business success. In contrast, Government Support shows a relatively weak coefficient ($\beta = 0.11$) and was statistically

insignificant in the regression analysis, indicating limited impact on MSME performance in this context. Overall, the chart visually confirms that digital transformation and social value integration are far more influential than top-down government interventions in shaping the economic sustainability of rural MSMEs engaged in niche commodities like white tea.

Government support was measured using a composite index derived from respondents' perceptions of institutional assistance received, including access to government training programs, financial incentives or subsidies, infrastructure facilitation, and regulatory support. Each indicator was assessed using a Likert-scale questionnaire (1 = strongly disagree to 5 = strongly agree) reflecting the extent to which such support was accessible, relevant, and beneficial to the MSME's operations. The composite score was calculated as the mean of all items and treated as an independent variable in the regression analysis. Interpretation of the results indicates that while government support was present in several regions, its statistical effect on EVA was limited, suggesting that existing institutional interventions may not directly translate into financial value creation without complementary firm-level capabilities such as digital readiness and strategic value creation.

4.4. *Discussion*

The findings of this study demonstrate that digital capability is the most influential determinant of EVA among white tea MSMEs in West Java. The strong and significant effect of digital capability indicates that firms able to integrate digital tools—such as e-commerce platforms, digital marketing, and online payment systems—are more effective in converting operational activities into economic surplus. From a practical standpoint, digital capability reduces market frictions, expands customer reach beyond local boundaries, and enhances price realization for premium products like white tea. These results reinforce prior empirical evidence that digital transformation functions as a productivity and value-multiplying mechanism for MSMEs, particularly those operating in niche and differentiation-driven markets [18],[19].

In contrast, the non-significant effect of government support on EVA warrants critical reflection. While institutional assistance exists in the form of training programs, subsidies, and infrastructure facilitation, such support does not appear to directly translate into measurable financial value creation. This outcome suggests a structural misalignment between policy design and the operational realities of rural MSMEs. Many government programs are standardized and short-term, focusing on compliance or capacity-building rather than addressing core business constraints such as market access, capital efficiency, and product differentiation. As a result, policy support may improve administrative readiness without substantially improving profitability or capital returns.

Contextual factors specific to rural MSMEs further explain why digital capability outweighs policy intervention. White tea MSMEs operate in geographically dispersed areas with limited physical market connectivity and high dependence on intermediaries. In such settings, digital tools function as substitutes for missing infrastructure by enabling direct producer–consumer interaction, transparent pricing, and efficient logistics coordination. Digital capability therefore provides immediate and tangible economic benefits, whereas policy support often requires complementary firm-level capabilities to be effective. Without sufficient digital literacy and absorptive capacity, institutional support alone may have limited impact on financial outcomes [20].

The positive and significant role of CSV practices highlights that social and environmental initiatives contribute to competitiveness when embedded within core business strategies. MSMEs that engage local communities, apply sustainable production practices, and promote product authenticity benefit from stronger brand positioning and consumer trust, which in turn supports EVA performance. However, CSV alone is insufficient without digital capability, as shared value initiatives require effective communication and market signaling to translate into economic returns. Overall, the findings suggest that MSME sustainability in rural agri-business contexts is driven primarily by internally developed strategic capabilities, with digital transformation acting as the central catalyst that amplifies both value creation and financial sustainability.

5. CONCLUSION

This study contributes to the advancement of MSME financial analytics by demonstrating the applicability of the EVA framework as a rigorous and practical tool for evaluating financial sustainability in rural agro-based enterprises. By integrating EVA with quantitative measures of digital capability and CSV, the research moves beyond conventional profitability indicators and provides a capital-sensitive assessment of value creation. The empirical findings confirm that digital capability is the strongest predictor of positive EVA performance

among white tea MSMEs, highlighting the importance of internal strategic capabilities in generating economic surplus. This contribution is particularly relevant for MSMEs, where financial decision-making is often constrained by limited analytical tools and incomplete accounting practices.

From the perspective of applied mathematics, this research underscores the relevance of quantitative modeling and statistical evaluation in assessing sustainability outcomes. The use of regression analysis, composite indices, and EVA calculations illustrates how mathematical frameworks can be applied to capture complex interactions between operational capability, social value creation, and financial performance. The findings support the role of applied mathematical evaluation as an objective basis for sustainability assessment and strategic planning in MSMEs. Overall, this study provides a scalable analytical approach that can be adapted to other niche agricultural sectors, offering valuable insights for researchers, practitioners, and policymakers seeking data-driven methods to enhance MSME sustainability and competitiveness.

References

[1] Mulyana, A., Rizal, F., & Ismail, M. (2022). The role of ICT and digitalization in supporting MSME resilience during the COVID-19 pandemic: Evidence from Indonesia. *Journal of Small Business and Enterprise Development, 29*(3), 407–423.

[2] Sambas, A., Gundara, G., Vaidyanatahan, S., & Andriana, A. (2022). Smart Agriculture Training to Increase Fish Productivity in Padamulya Ciamis Village, West Java, Indonesia. *International Journal of Research in Community Services*, *3*(3), 94-98.

[3] Kurniawati, M., & Arif, M. (2025). Analysis of the Impact of MSMEs, Wage Levels, Population Size, and Education Levels on Unemployment in East Java Province. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, *8*(2), 6613-6628.

[4] Johansyah, M. D., Vaidyanathan, S., Benkouider, K., Sambas, A., Aruna, C., Annavarapu, S. K., & Kartiwa, A. (2025). A Chaotic Butterfly Attractor Model for Economic Stability Assessment in Financial Systems. *Mathematics*, *13*(10), 1633.

[5] Fuad, E. N., Mohammad, Y. E., Aminnudin, M., & Rhomadhon, M. S. (2025). Enhancing sustainability in Indonesian SMEs through green HRM and supply chains. *Problems and Perspectives in Management*, *23*(2), 384.

[6] Hendrayati, H., Marimon, F., Hwang, W. Y., Yuliawati, T., Susanto, P., & Rahmiati, R. (2025). Customer relationship management and value creation as key mediators of female-owned MSMEs' market performance. *Journal of Innovation and Entrepreneurship*, *14*(1), 69.

[7] Surti, S. (2025). Digital Capability Implementation Gaps and Their Impact on MSME Performance: A Study of Micro, Small, and Medium Enterprises in Banjarbaru, Indonesia. *Journal of Regional Economics Indonesia*, *6*(1), 1-10.

[8] Triana, D. (2025). Business Feasibility Study Analysis for Iced Tea MSMEs (First) Reviewed from a Halal Perspective. *Rihlah Iqtishad: Jurnal Bisnis dan Keuangan Islam*, *2*(1), 25-35.

[9] Sunarta, D. A., Apriliani, R., Prasetya, A., & Ramadhaningsih, D. (2025). Halal Certification and Value Addition for MSME Products: A Literature Review on Government Initiatives and Regulatory Frameworks. *Malacca: Journal of Management and Business Development*, *2*(2), 104-115.

[10] Matarazzo, M., Oduro, S., & Gennaro, A. (2025). Stakeholder engagement for sustainable value co-creation: Evidence from made in Italy SMEs. *Business Ethics, the Environment & Responsibility*, *34*(2), 347-361.

[11] Wang, H., & Ran, B. (2025). How does citizen-centric co-production lead to value co-creation? A perspective of interactive governance. *Public Management Review*, *27*(3), 768-793.

[12] Octaviani, D. Y., & Putri, M. K. (2025). Strengths and Weaknesses of MSMEs in the Digital Era: Challenges and Opportunities for Transformation Towards Sustainable Competitiveness. *Multicore International Journal of Multidisciplinary (MIJM)*, *1*(2), 76-81.

[13] Probohudono, A. N., Suhardjanto, D., Aligarh, F., Chayati, N., & Putra, A. A. (2025). Navigating MSMEs' performance through innovation and digital IT capabilities in business strategy. *Social Sciences & Humanities Open*, *12*, 101810.

[14] Gleißner, W., Günther, T., & Walkshäusl, C. (2022). Financial sustainability: measurement and empirical evidence. *Journal of Business Economics*, *92*(3), 467-516.

[15] Navarro-Galera, A., Rodríguez-Bolívar, M. P., Alcaide-Muñoz, L., & López-Subires, M. D. (2016). Measuring the financial sustainability and its influential factors in local governments. *Applied Economics*, *48*(41), 3961-3975.
[16] Ramadhona, D., Syafri, W., Maryani, D., & Achmad, M. (2023). Government support and policy design to improve MSME's performance. *Journal of Social Research*, *2*(7), 2157-2172.
[17] Onyeje, S. A., Court, T. O., & Agbaeze, E. K. (2022). National enterprise policy dimensions and sustainability of micro, small and medium enterprises (MSMEs). *Journal of African Business*, *23*(2), 435-453.
[18] Khin, S., & Ho, T. C. F. (2019). Digital technology, digital capability and organizational performance: A mediating role of digital innovation. *Technological Forecasting and Social Change, 146*, 111–117.
[19] Maroufkhani, P., Wagner, R., & Ismail, W. K. W. (2020). Digital transformation in SMEs: A systematic review. *Journal of Small Business Strategy, 30*(4), 89–106.
[20] Mursalin, A., Pratiwi, W., Rawa, R. D., Hendharsa, A., & Aisyah, A. (2022). The role of government policy and stakeholder engagement in improving performance of MSMEs in North Kayong Regency. *Eduvest-Journal of Universal Studies*, *2*(11), 2258-2268.