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Capability priorities versus strategic priorities in social entrepreneurial orientation: an expert-based AHP study of sustainable MSMEs

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ABSTRACT

This study examines which strategic interventions MSMEs should prioritize to enhance sustainable performance by eliciting and aggregating expert judgments on Social Entrepreneurial Orientation (SEO) and alternative development strategies. A quantitative expert-judgment approach using the Analytic Hierarchy Process (AHP) was conducted over six months with 11 experts representing government, MSME practitioners, and MSME community administrators. Experts were selected using [sampling strategy] based on [expert selection criteria], and the sample size was justified by [sample size rationale]. Pairwise comparisons were aggregated using the geometric mean, and priority weights were calculated using the principal eigenvector method. Judgment consistency was assessed using the Consistency Ratio (CR), with a threshold of CR $\leq$ 0.10; [inconsistent matrices were revised or excluded according to the study protocol]. The results indicate that social innovativeness receives the highest weight among the SEO dimensions, followed by social risk-taking, social proactiveness, and socialness. At the strategic level, the global synthesis identifies proactive marketing and digital market expansion as the highest-ranked alternative, followed by business adaptation and risk management (0.2158), and [third-ranked alternative and its global weight]. These findings suggest that MSME development initiatives should connect social innovation with digital market activation and disciplined risk management. Government support can focus on capability development, while stakeholder networks can strengthen market intelligence and collaboration.

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Introduction

Micro, small, and medium enterprises (MSMEs) occupy a strategic position in emerging economies because they combine economic functions with broad social effects. Their activities create employment, circulate income within local communities, widen participation in markets, and provide pathways for groups that are often weakly connected to formal economic institutions. In Indonesia, this role is especially visible because MSMEs operate across urban and rural settings, from household-scale businesses to firms that are progressively integrated into digital markets. Yet the sustainability challenge faced by MSMEs has intensified. Market volatility, technological change, shifting consumer expectations, financing constraints, and pressure to demonstrate social and environmental responsibility require business owners to pursue both viability and social value simultaneously. Recent Indonesian evidence shows that entrepreneurial orientation, innovation, digitalization,

and market capability are increasingly associated with MSME performance and sustainability, but the effects are not always uniform across entrepreneurial dimensions (Adam et al., 2024; Bahtiar et al., 2025; Munandar et al., 2025; Rosyidiana & Narsa, 2024).

This dual requirement makes Social Entrepreneurial Orientation (SEO) a useful lens for understanding MSME behavior. SEO extends the logic of entrepreneurial orientation by combining opportunity-seeking behavior with an explicit social orientation. Kraus et al. (2017) developed an SEO scale consisting of four dimensions: social innovativeness, social risk-taking, social proactiveness, and socialness. Social innovativeness represents the tendency to generate new ways of increasing social impact or serving beneficiaries; social risk-taking captures the willingness to accept substantial uncertainty when pursuing a social purpose; social proactiveness reflects an anticipatory posture in addressing social needs; and socialness captures the extent to which social goals, sustainability, community concerns, and partnerships are embedded in organizational behavior. This conceptualization is particularly relevant to MSMEs because many small businesses in emerging economies simultaneously pursue family income, business growth, community employment, local sourcing, and social contribution rather than separating commercial and social objectives into distinct organizational forms.

However, the relevance of SEO should not be interpreted as evidence that conventional entrepreneurial orientation (EO) is inherently inadequate or that social dimensions are empirically superior to conventional EO dimensions in every MSME context. Conventional EO remains useful for explaining entrepreneurial behaviors such as innovativeness, risk-taking, and proactiveness. The limitation addressed in this study is more specific: an EO framework centered on conventional entrepreneurial behaviors does not, by itself, explicitly organize social mission, community interests, and social-value creation as decision criteria alongside economic objectives. This distinction becomes important when MSMEs are expected not only to survive and grow but also to sustain their contributions to employees, communities, and other stakeholders. SEO therefore provides a complementary conceptual lens for examining how entrepreneurial capabilities can be prioritized within a dual economic and social performance framework. The purpose is not to replace conventional EO, but to examine the decision priorities associated with the four SEO dimensions in the sustainability context of Indonesian MSMEs.

Empirical research increasingly supports the relevance of SEO and related entrepreneurial orientations to organizational outcomes. Studies of non-profit organizations and social enterprises show that social innovation and proactiveness can enhance organizational performance, although the contribution of risk-taking is more contingent (do Adro et al., 2021; Pinheiro et al., 2021). Zafar et al. (2022) further demonstrate that SEO influences financial performance through social performance, suggesting that social and economic outcomes can reinforce rather than simply compete with each other. Research in emerging economies similarly indicates that an entrepreneurial orientation strengthens innovation performance in social enterprises (Oduro, 2022), while a social entrepreneurial orientation can help organizations cope with environmental turbulence and sustain both financial and social outcomes (Wahyudi et al., 2025). In Indonesia, broader research on entrepreneurial orientation also finds that innovativeness, risk-taking, and networking are associated with MSME performance, whereas proactiveness may have more complex effects when firms lack the capacity to identify and convert opportunities effectively (Adam et al., 2024). Taken together, these findings indicate that entrepreneurial dimensions do not necessarily contribute to organizational outcomes in the same way or with the same relative importance. Nevertheless, evidence concerning relationships with performance does not automatically establish which dimensions should receive priority when organizations must allocate limited resources among competing strategic needs.

At the same time, the implementation context has changed as digitalization has become a major channel through which entrepreneurial capabilities translate into market outcomes. Digital technologies allow small firms to communicate value, acquire customer information, reach geographically dispersed markets, build communities around products, and experiment with new channels at lower marginal cost. Evidence from SMEs shows that the adoption of digital technology contributes to value creation and sustainability, especially when accompanied by an entrepreneurial orientation (Vrontis et al., 2022). Digital orientation is also associated with sustainable innovation among small businesses (Nasiri et al., 2022), while e-commerce and digital marketing can support financial performance and longer-term sustainability among MSMEs (Gao et al., 2023). Studies in Indonesia reinforce this pattern by showing that digital transformation is both an opportunity and a capability challenge for MSMEs (Bahtiar et al., 2025), and that innovation remains an important mechanism connecting digitalization and business performance (Rosyidiana & Narsa, 2024). These findings make digital market expansion a relevant strategic alternative to consider, but they do not establish in advance that it should receive the highest priority. Its relative position must be evaluated against other alternatives within the particular decision context.

Despite this growing evidence, most studies on SEO and entrepreneurial orientation address a causal question: whether a dimension, capability, or orientation affects performance. Structural equation models, regressions, and mediation models are valuable for estimating these relationships, but they do not directly answer a decision question faced by MSME owners and policymakers: when resources are scarce, which SEO dimension, actor, objective, and intervention should be prioritized first? This distinction is important because significance does not automatically imply strategic precedence. Several entrepreneurial dimensions can be positively associated with performance, yet managers may still need to sequence investments across innovation, risk management, market proactivity, collaboration, and social impact systems. Likewise, a capability judged fundamental at the conceptual level may not be the intervention that should receive the first operational investment. The literature therefore needs a complementary priority-based perspective that converts expert judgments into an explicit decision hierarchy. Such a perspective does not replace causal or explanatory research; instead, it addresses a different question by identifying relative priorities among predefined decision elements.

The gap is particularly visible in the Indonesian MSME context. Recent studies have examined entrepreneurial orientation and MSME performance (Adam et al., 2024), sustainability orientation and sustainable entrepreneurship (Ismaeni et al., 2024), digital transformation and sustainability (Bahtiar et al., 2025), and business sustainability factors and marketing performance (Munandar et al., 2025). However, relatively little evidence ranks SEO dimensions and simultaneously links them with key actors, social versus economic objectives, and actionable strategic alternatives. Existing multi-criteria applications to SMEs demonstrate that the Analytic Hierarchy Process (AHP) can transform complex expert judgments into operational priorities for sustainable management and strategic development (Jelačić et al., 2021). Nevertheless, AHP has rarely been used to translate the four-dimensional SEO framework of Kraus et al. (2017) into a decision architecture for MSME sustainability. The gap is therefore not simply the absence of another test of whether SEO is associated with performance. It concerns the limited decision-oriented understanding of how SEO dimensions can be ranked and connected to actors, objectives, and practical interventions in a multi-level sustainability problem.

This study addresses that gap by applying AHP to prioritize SEO-based strategies for sustainable MSME performance. The hierarchy consists of four SEO factors: social innovativeness, social risk-taking, social proactiveness, and socialness; three actor categories: MSME actors, stakeholders, and government/MSME agencies; two objectives: social performance and economic performance; and five strategic alternatives. The alternatives are social-value-based product and business model innovation; proactive marketing and digital market expansion; business adaptation and risk management; ecosystem collaboration and multi-stakeholder partnerships; and social mission integration and impact measurement. Expert judgments were obtained from 11 respondents representing government, MSME practitioners, and administrators of MSME communities or other stakeholder organizations during a six-month research period.

Methodologically, this study uses the four SEO dimensions proposed by Kraus et al. (2017) as conceptual criteria within an AHP decision hierarchy rather than treating the study as a psychometric validation of the original SEO scale. The primary analytical task is to derive relative priorities from experts' pairwise comparisons across the defined factors, actors, objectives, and strategic alternatives. Accordingly, the study does not estimate latent-variable relationships or use the AHP weights as evidence of causal effects. The 11 respondents constitute the expert-judgment panel for the decision problem, rather than a conventional survey sample intended to estimate population parameters. The appropriateness of this panel should therefore be justified by the relevance and experience of its members in relation to MSME development and the study's decision categories. [The authors should specify the actual criteria used to select the 11 respondents, including relevant experience, role, or knowledge of MSME sustainability, and explain the recruitment procedure.] Because the design uses AHP pairwise comparisons rather than an inferential survey model, conventional statistical power analysis for testing population-level effects is not the primary basis for determining the panel size. Instead, the methodological justification should explain the suitability of the expert panel for providing informed judgments and report the consistency assessment applied to the comparison matrices.

The distinction between conceptual adoption and psychometric validation is also important for interpreting the SEO framework. The four dimensions are adopted from the conceptualization of Kraus et al. (2017) to structure the decision hierarchy; the study does not claim to validate the scale's factor structure, internal consistency, or cross-cultural measurement equivalence in the Indonesian MSME context. The dimensions are therefore used as decision criteria, not as a newly validated measurement instrument for individual MSMEs. [The authors should confirm whether the wording or meaning of any SEO dimension was adapted for the Indonesian MSME context and describe any expert review, translation, or contextual adaptation actually conducted. If no such procedure was conducted, the manuscript should state this transparently and acknowledge

cross-cultural adaptation and validation as a limitation.] Published reliability coefficients should only be reported if they are available in the original scale publication or a relevant validation study and can be accurately verified; they should not be presented as reliability estimates obtained from the present AHP analysis.

Accordingly, the study asks three questions. First, which SEO dimension has the highest priority for strengthening sustainable MSME performance? Second, how do experts prioritize the actors and the social and economic objectives embedded in the SEO hierarchy? Third, which strategic alternative generates the highest global priority after all levels of the hierarchy are synthesized? By answering these questions, the study contributes a decision-oriented extension to SEO research. It distinguishes between the relative importance of entrepreneurial capabilities and the relative priority of implementation strategies, makes actor differences visible, and provides a transparent basis for directing capacity-building and policy resources. This is the central novelty of the study: rather than treating SEO dimensions as equally actionable antecedents, the analysis shows how experts sequence them within a multi-level sustainability decision problem. More specifically, the study contributes an AHP-based decision architecture that links the four SEO dimensions to actor priorities, economic and social objectives, and actionable strategy alternatives for sustainable MSME performance. This contribution is an extension of the application and decision-oriented use of the SEO framework, rather than a claim that the four-dimensional SEO construct itself is newly developed or psychometrically validated by this study.

LITERATURE REVIEW

Resource-Based View and SEO as a Strategic Capability

The Resource-Based View (RBV) provides the principal theoretical foundation for this study. RBV argues that firm heterogeneity and sustained performance arise from resources and capabilities that are valuable, inimitable, and effectively organized (Barney, 1991). For MSMEs, this perspective is especially useful because competitive advantage often cannot be built through scale, capital intensity, or market power. Instead, small firms rely on entrepreneurial judgment, knowledge, relationships, adaptive routines, and the ability to combine scarce resources in distinctive ways. In this setting, SEO can be interpreted as a higher-order strategic posture that organizes how MSMEs deploy resources toward both economic opportunity and social value.

The RBV interpretation is supported by recent social enterprise research. Oduro (2022), drawing explicitly on the RBV, finds that the dimensions of entrepreneurial orientation contribute to innovation performance in social enterprises. Vrontis et al. (2022) integrate RBV and dynamic capability reasoning to show that digital technology adoption and entrepreneurial orientation jointly support value creation and sustainability in SMEs. AlKoliby et al. (2024) similarly show that knowledge application and digital marketing affect sustainable performance through innovation, indicating that capabilities create value when they are transformed into organizational action. These studies imply that the four SEO dimensions should not be viewed merely as attitudes. They represent patterned capabilities for recognizing social opportunities, experimenting with new solutions, committing resources under uncertainty, and embedding social considerations into strategic decisions.

RBV also clarifies why priority analysis is necessary. Firms rarely possess unlimited capability-development resources. Training budgets, managerial attention, financial reserves, digital investments, and partnership capacity must be allocated among competing needs. A firm may value innovation, risk-taking, proactiveness, and socialness simultaneously, but the marginal value of strengthening each dimension can differ. A priority framework therefore complements RBV by identifying which capability deserves greater attention in a specific decision context. AHP is appropriate for this purpose because it converts comparative judgments into ratio-scale priorities while preserving the hierarchy between strategic capabilities, actors, objectives, and alternatives.

Social Entrepreneurial Orientation

Kraus et al. (2017) conceptualized SEO as a multidimensional construct that adapts entrepreneurial orientation to the hybridity of social entrepreneurship. Their scale identifies social innovativeness, social risk-taking, social proactiveness, and socialness as distinct but complementary dimensions. Subsequent research has used these dimensions to explain social and financial outcomes across non-profit organizations, social enterprises, and hybrid organizations (do Adro et al., 2021; Makeel et al., 2022; Zafar et al., 2022). The dimensions share an entrepreneurial logic but differ in the type of behavior they emphasize, which makes their relative prioritization theoretically meaningful.

Social innovativeness refers to a persistent search for new ways to solve social problems, improve social impact, or better serve beneficiaries. In MSMEs, the concept can be operationalized through product innovation, process improvement, new service formats, local-resource utilization, waste reduction, inclusive business models, and new combinations of commercial and community value. Innovativeness is especially salient when conventional solutions are poorly matched to local needs or when resource constraints force firms to use creativity as a substitute for scale. Recent evidence links innovation to SME performance and sustainability.

Rosyidiana and Narsa (2024) show that innovation is positively related to MSME financial performance, while Munandar et al. (2025) identify social entrepreneurship orientation, entrepreneurial marketing, and internet marketing as relevant elements for Indonesian MSME sustainability and marketing performance. Social-enterprise studies also associate entrepreneurial orientation with innovation performance (Oduro, 2022).

Social risk-taking concerns the willingness to commit resources under uncertainty when pursuing socially relevant opportunities. The dimension should not be confused with reckless behavior. For resource-constrained MSMEs, the more useful interpretation is calculated risk-taking: entering a new market, experimenting with a new digital channel, financing a product redesign, serving a new beneficiary segment, or partnering with unfamiliar institutions despite uncertain returns. Evidence on the performance effect of risk-taking is mixed. do Adro et al. (2021) report no direct effect of social risk acceptance on non-profit performance, whereas Oduro (2022) finds that risk-taking has a comparatively strong effect on innovation performance among social enterprises. This inconsistency strengthens the case for contextual priority assessment rather than assuming that the same entrepreneurial dimension is universally dominant.

Social proactiveness captures anticipatory action. Proactive firms seek to anticipate changing customer and community needs before competitors or external pressures force adaptation. They search for information, initiate partnerships, test new markets, and act early in response to technological or social change. This capability has become increasingly important in digital markets because information cycles are shorter and customer expectations change quickly. Yet proactiveness also requires complementary capabilities. Adam et al. (2024) find a negative relationship between proactiveness and MSME performance in parts of Indonesia, suggesting that acting early does not automatically create value when firms lack opportunity evaluation or execution capabilities. By contrast, do Adro et al. (2021) find a positive role for social proactivity in non-profit performance. These contrasting results make proactiveness a particularly suitable criterion for expert prioritization.

Socialness distinguishes SEO from a purely commercial entrepreneurial orientation. It reflects the extent to which social mission, sustainability, community interests, inclusion, and partnerships are integrated into business decisions. Socialness can be expressed through local employment, support for disadvantaged groups, responsible production, community participation, and formal or informal collaboration. The dimension is central to the legitimacy of social entrepreneurship, but its operational value may depend on the enterprise's maturity and economic stability. Makeel et al. (2022) show that supportive and performance-based cultures interact with SEO in shaping social enterprise outcomes, while Zafar et al. (2022) demonstrate that social performance can transmit the effect of SEO to financial outcomes. Thus, socialness should not be viewed as opposed to economic performance; it is one part of a hybrid value-creation architecture.

Sustainable MSME Performance: Economic and Social Objectives

Sustainable MSME performance is treated in this study as the capacity to maintain business viability while continuing to generate valued social outcomes. This approach avoids reducing sustainability to financial endurance alone, but it also avoids assuming that social contribution can be sustained without an economically functioning enterprise. The distinction between economic and social performance is analytically important because the two objectives can be weighted differently by different actors. Social enterprises and socially oriented MSMEs must continuously balance this duality, and recent studies show that social and economic performance are often interdependent rather than strictly substitutive (Pinheiro et al., 2021; Zafar et al., 2022; Wahyudi et al., 2025).

Economic performance in the hierarchy includes revenue growth, profitability, market expansion, customer growth, productivity, and the ability to maintain operations. These outcomes are critical because weak cash flow and limited market access constrain the capacity to finance innovation or social programs. Social performance includes employment creation, community empowerment, local participation, improved stakeholder welfare, and the solution of social problems. The expert hierarchy allows the relative priority of these objectives to differ by actor. This is important because MSME owners directly experience liquidity and survival pressures, while public agencies may place stronger weight on employment, inclusion, and community welfare.

The broader sustainability literature supports such a dual perspective. Ferreira and Ferreira (2024), in a systematic review of sustainable entrepreneurship in SMEs, identify entrepreneurial orientation, innovation, networks, sustainable practices, and performance as interconnected thematic drivers. Álvarez-García et al. (2022) show that leaders' sustainability competencies and social entrepreneurial orientation are linked to SME outcomes. In Indonesia, Ismaeni et al. (2024) emphasize the importance of entrepreneurial orientation for sustainability performance, and Munandar et al. (2025) show that economic and social approaches may need to

differ across micro- and small-enterprise contexts. These findings suggest that a strategy for sustainable performance should not be selected without considering both the firm's capability and objective structures.

Actors and the MSME Ecosystem

Sustainable MSME development is not produced by the firm alone. The hierarchy therefore includes MSME actors, stakeholders, and government/MSME agencies. MSME actors refer to owners and managers who directly allocate resources, make innovation decisions, assume risk, select markets, and implement social or commercial initiatives. Stakeholders include MSME community administrators, business associations, universities, financial institutions, supply-chain partners, digital platforms, and other organizations that shape access to information, knowledge, legitimacy, markets, and resources. Government/MSME agencies provide regulation, facilitation, training, formalization support, financing programs, infrastructure, and ecosystem coordination.

The inclusion of these actors reflects both stakeholder and ecosystem reasoning. Aisjah et al. (2023) show that social capital, collaborative knowledge creation, and technology adoption contribute to SME innovation and performance in Indonesia. Ta and Lin (2023) find that environmental conditions, customer experience, technological compatibility, organizational support, government support, and human resources shape the adoption of digital transformation in SMEs. These studies indicate that entrepreneurial action depends on a wider support architecture. However, ecosystem support and entrepreneurial agency are not substitutes. External organizations can expand opportunity sets, but implementation still depends on the business owner's capability to recognize, evaluate, and use those opportunities. AHP makes this distinction explicit by allowing experts to weigh the relative role of each actor under each SEO factor.

Strategic Alternatives for SEO-Based MSME Sustainability

The five strategic alternatives translate SEO into actionable interventions. The first, social-value-based product and business model innovation, involves developing products, services, processes, or models that jointly address market needs and social problems. It operationalizes social innovativeness through activities such as local sourcing, inclusive production, environmentally responsible processes, circular use of materials, and service innovations that extend benefits to underserved groups.

The second, proactive marketing and digital market expansion, emphasizes opportunity recognition and market action through digital channels. It includes digital branding, social media content, e-commerce, marketplace participation, customer data use, community-based marketing, and proactive entry into new segments. The literature strongly supports the strategic relevance of this alternative. Vrontis et al. (2022) show that digital technology adoption strengthens sustainability and value creation, Gao et al. (2023) identify important links between e-commerce, digital marketing, financial performance, and sustainability, and AlKoliby et al. (2024) find that digital marketing supports sustainable performance through innovation. Indonesian studies likewise emphasize digital transformation and market capability as major MSME development needs (Bahtiar et al., 2025; Munandar et al., 2025).

The third alternative, business adaptation and risk management, reflects the calculated side of social risk-taking. It includes diversification, cash-flow management, phased experimentation, financial literacy, market adaptation, contingency planning, and the use of alternative financing. The strategic logic is that entrepreneurial opportunity cannot create sustainable value if a business lacks the resilience to absorb failure or respond to volatility. The fourth alternative, ecosystem collaboration and multi-stakeholder partnerships, focuses on collaborative access to knowledge, financing, technology, markets, and legitimacy. It is consistent with evidence that social capital and collaborative knowledge creation support SME innovation and performance (Aisjah et al., 2023).

The fifth alternative, social mission integration and impact measurement, formalizes the socialness dimension by incorporating social objectives into planning, branding, performance evaluation, and accountability. It can include identification of beneficiaries, social-impact indicators, reporting, and explicit integration of community goals into strategy. Recent social enterprise research increasingly emphasizes the need to balance mission and commercial discipline. Kimakwa and Abebe (2025), for example, highlight the importance of balancing social mission and business expertise for venture performance, while Alfina et al. (2026) show that social entrepreneurship orientation and social innovation can contribute to social enterprise performance through competitive advantage. The relative ranking of this alternative is therefore informative about the current stage of capability development among MSMEs rather than a judgment that social mission lacks value.

AHP as a Decision-Oriented Extension of SEO Research

AHP was developed to structure complex decisions in which multiple criteria must be evaluated through pairwise comparisons (Saaty, 2008). The method generates ratio-scale priorities from expert judgments and evaluates the consistency of those judgments. Group AHP commonly combines individual pairwise comparisons using the geometric mean because it preserves the reciprocal structure of comparison matrices (Forman & Peniwati, 1998). In SME research, AHP and related multi-criteria methods have been used to prioritize sustainable management parameters, policy interventions, digital capabilities, and strategic alternatives (Jelačić et al., 2021).

Using AHP in SEO research provides a different type of knowledge from conventional explanatory models. A regression coefficient estimates the association or effect of a predictor, whereas an AHP weight indicates the relative decision priority of an element given a defined goal and hierarchy. The two types of evidence can therefore complement each other. This study uses AHP not to claim causal effects but to clarify sequencing: which SEO capability is considered most important, which actor should bear the greatest responsibility, which objective should dominate, and which intervention should be prioritized when all levels are synthesized. Figure 1 presents the conceptual hierarchy used in the analysis.

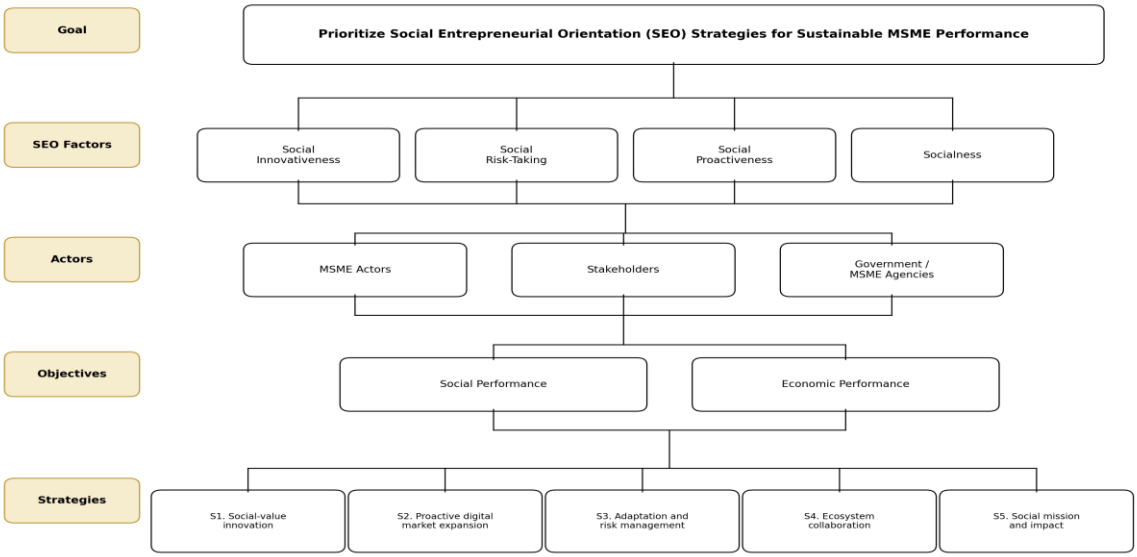


Figure 1. AHP hierarchy for prioritizing SEO-based MSME sustainability strategies
Source: Authors' construction.

Method

Research Design and AHP Hierarchy

This study employed a quantitative expert-judgment design using the Analytic Hierarchy Process (AHP). AHP was selected because the research objective was to rank interdependent strategic priorities rather than estimate causal effects among variables. The method is appropriate for structuring decision problems involving qualitative and quantitative considerations that can be organized hierarchically and evaluated through pairwise comparisons (Saaty, 2008). The research process, including instrument preparation, expert data collection, data checking, aggregation, and analysis, was conducted over a six-month period.

The decision hierarchy consisted of five levels. The first level represented the overall goal: prioritizing SEO-based strategies to improve sustainable MSME performance. The second level comprised the four SEO dimensions proposed by Kraus et al. (2017): social innovativeness, social risk-taking, social proactiveness, and socialness. The third level comprised three actor categories: MSME actors, stakeholders, and government/MSME agencies. The fourth level comprised two sustainability objectives: social performance and economic performance. The fifth level comprised five strategic alternatives: S1, social-value-based product and business model innovation; S2, proactive marketing and digital market expansion; S3, business adaptation and risk management; S4, ecosystem collaboration and multi-stakeholder partnerships; and S5, social mission integration and impact measurement.

Expert Selection and Panel Adequacy

The respondent panel consisted of 11 experts selected purposively because their professional roles provided relevant knowledge of MSME development and entrepreneurial practice. The panel represented three perspectives: government, MSME practitioners, and administrators of MSME communities or other stakeholder organizations. These perspectives were included to capture judgments from actors involved in MSME policy and support, direct business operation, and the broader MSME ecosystem.

Expert eligibility was based on the relevance of each respondent's role to the decision problem, particularly their involvement in or knowledge of MSME development, entrepreneurial practice, or MSME support activities. To make this criterion reproducible, the final manuscript should specify the actual eligibility requirements used during recruitment, including any minimum years of relevant experience, specific positions or responsibilities, decision-making involvement, and other qualification requirements, where these were applied. The authors should also report the number of participants recruited from each of the three perspectives and explain how this distribution was determined.

Purposive expert sampling was used because the purpose of AHP was to obtain informed comparative judgments rather than estimate population parameters through probability sampling. Therefore, the adequacy of the panel was considered in relation to the expertise required by the decision problem, the coverage of the relevant stakeholder perspectives, and the consistency of the resulting pairwise-comparison judgments. The number of respondents alone does not establish panel adequacy, and the panel should not be described as statistically representative of all Indonesian MSMEs. Previous SME studies have also applied AHP to prioritize complex decisions using selected expert judgments (Jelačić et al., 2021).

The panel comprised 11 respondents. One respondent did not complete the actor-comparison block under social proactiveness; consequently, that specific aggregate matrix was calculated from ten available judgments, while the other matrices were based on 11 responses. The difference in the number of judgments was documented to make the aggregation procedure transparent.

Pairwise-Comparison Instrument and Data Collection

Data were collected using a structured questionnaire designed around the five-level AHP hierarchy. Respondents compared two elements at a time with respect to their contribution to the relevant parent element. The questionnaire covered comparisons of SEO dimensions against the overall goal, actors under each SEO dimension, social and economic objectives under each actor, and strategic alternatives under each objective.

Saaty's fundamental 1–9 scale was used for the pairwise comparisons (Saaty, 2008). A value of 1 represented equal importance; 3 represented moderate importance; 5 represented strong importance; 7 represented very strong importance; and 9 represented extreme importance. Values of 2, 4, 6, and 8 represented intermediate judgments between adjacent categories. Reciprocal values were assigned when the element in the opposite position was preferred. Respondents were instructed to compare the relative importance of the two elements with respect to the stated criterion, rather than rate each element independently.

Before the questionnaire was completed, respondents were provided with the hierarchy and definitions of the criteria and alternatives so that the comparisons could be made with reference to a common decision structure. [The authors should specify whether a pilot test, briefing session, written instruction, or other calibration procedure was actually conducted. If a pilot test was performed, report who participated, what was assessed, and what changes were made. If no pilot test or formal calibration was conducted, this should be stated transparently rather than implying that the instrument was pilot-tested.]

The questionnaire responses were checked for completeness and reciprocal consistency before aggregation. Missing responses were handled at the relevant comparison-block level: the actor-comparison matrix under social proactiveness used the ten available judgments, whereas the remaining matrices used 11 judgments. The consistency of each aggregated comparison matrix was then assessed using the Consistency Index (CI) and Consistency Ratio (CR), as described below.

Operational Definitions of SEO Dimensions

The four SEO dimensions were operationalized as decision criteria based on the conceptual framework proposed by Kraus et al. (2017) and contextualized for the sustainability of MSMEs. Social innovativeness referred to the capability and tendency to develop new products, services, processes, or business models that improve market value and social impact. Social risk-taking represented the willingness to allocate resources to uncertain opportunities in pursuit of economic and social value, with risk interpreted as calculated rather than speculative. Social proactiveness represented the ability to anticipate market and social changes and act before competitive or institutional pressure required a response. Socialness represented the extent to which social mission, community benefit, sustainability, and stakeholder interests were integrated into business decisions.

These definitions were used to establish a shared conceptual basis for expert comparisons. The study used the four SEO dimensions as criteria within an AHP decision hierarchy; it was not designed as a psychometric validation of the original SEO scale. Accordingly, the AHP priority weights should be interpreted as the relative priorities assigned by the expert panel within the specified hierarchy, not as estimates of latent-variable scores or evidence that the scale's factor structure and reliability were validated in the Indonesian MSME context. [The authors should confirm whether translation, expert review, wording adaptation, or other contextual adaptation procedures were conducted and report only the procedures actually performed.]

Aggregation of Expert Judgments

Individual expert judgments were aggregated using the geometric mean. For a comparison between element (i) and element (j) across (m) experts, the group judgment was calculated as:

$$a_{ij}^{(G)} = \left(\prod_{k=1}^{m} a_{ij}^{(k)} \right)^{1/m}$$

where $\left(a_{ij}^{(G)}\right)$denotes the aggregated judgment and $\left(a_{ij}^{(k)}\right)$ denotes the judgment provided by expert (k). The geometric mean is commonly used in group AHP because it preserves the reciprocal property of pairwise-comparison matrices (Forman & Peniwati, 1998). The value of (m) was 11 for the matrices with complete responses and 10 for the actor-comparison matrix under social proactiveness.

Priority Estimation and Consistency Assessment

Priority weights were derived from the principal right eigenvector of each aggregated pairwise-comparison matrix. The consistency of each matrix was evaluated using the Consistency Index (CI) and Consistency Ratio (CR). The CI was calculated as:

$$CI = \frac{\lambda_{max} - n}{n - 1}$$

where (λ_{max})notes the maximum eigenvalue and (n) denotes the matrix size. The CR was calculated by dividing the CI by Saaty's Random Index (RI) corresponding to the matrix size:

$$CR = \frac{CI}{RI}$$

A CR of 0.10 or below was used as the conventional criterion for acceptable consistency. A CR above 0.10 indicated that the aggregate comparisons did not meet this conventional threshold and therefore required additional examination. Because a reciprocal (2 × 2) comparison matrix is perfectly consistent by construction, the social-versus-economic objective matrices did not require a separate CR interpretation.

Two aggregated matrices exceeded the conventional threshold: the SEO-factor matrix, with (CR=0.1058), and the actor-comparison matrix under social risk-taking, with (CR=0.1564). These matrices were not treated as satisfying the conventional consistency criterion. Their priority weights were therefore interpreted cautiously and were not considered sufficient on their own to establish robust priorities. The final analysis should address these matrices through re-examination of the underlying judgments, where feasible, or through a sensitivity analysis that evaluates whether the substantive ranking conclusions change when the affected judgments are revised or the affected matrices are treated differently.

[The authors should report the actual procedure used for these two matrices. If experts were asked to review and revise their comparisons, describe that process and report the resulting CR values and weights. If the original judgments could not be revised, conduct and report a sensitivity analysis using a clearly specified alternative treatment. Do not state that either procedure was performed unless it was actually completed.]

Global Synthesis of Strategic Priorities

The global priority of each strategy was calculated by multiplying the local weights along each relevant path in the hierarchy and summing the resulting path weights. The global strategy weight was calculated as:

$$W(S_j) = \sum_{f} \sum_{a} \sum_{t} W_f \times W_{a|f \times} W_{t|a} \times W_{S_j|t}$$

where $\left(W(S_j)\right)$ denotes the global priority of strategy (S_j); (W_f) denotes the weight of SEO factor (f); $(W_\{a|f\})$ denotes the conditional weight of actor (a) under SEO factor (f); $(W_\{t|a\})$ denotes the conditional weight of objective (t) under actor (a); and $(W_\{S_j|t\})$ denotes the conditional weight of strategy (S_j) under objective (t). The global priorities were used to rank the five strategic alternatives within the defined hierarchy.

A separate direct actor comparison was retained as a supplementary result. It was not multiplied again in the global synthesis because doing so would double-count actor importance already represented in the conditional actor weights. All calculations were performed on the aggregated pairwise-comparison matrices. The results were checked against the matrix consistency statistics and the sum-to-one property of the local and global priority vectors. In reporting the findings, the priority weights and rankings of all four SEO dimensions and all five strategic alternatives should be presented in complete tables so that readers can verify the results and assess their relationship to the study's conclusions.

Results and Discussions

The expert panel produced a complete set of pairwise judgments for all main hierarchy components, with one missing actor block under social proactiveness as noted in the method section. Because the study uses expert judgments rather than a population survey, the data profile is defined primarily by institutional perspective: respondents represented government, MSME practitioners, and MSME community administrators or stakeholder organizations. The resulting matrices provide a multi-actor view of the relative importance of SEO capabilities and interventions.

Before interpreting priorities, matrix consistency was examined. Table 1 shows that most aggregated matrices met the conventional CR threshold of 0.10. The direct actor matrix and the actor matrices under social innovativeness, social proactiveness, and socialness were consistent, as were the strategy matrices for both social and economic performance. Two matrices require caution. The SEO-factor matrix produced a CR of 0.1058, which is only slightly above the conventional threshold, while the actor matrix under social risk-taking produced a CR of 0.1564. Rather than modifying judgments ex post to force consistency, the original responses were retained to preserve transparency. These two matrices are therefore interpreted with appropriate caution and are explicitly identified as a limitation.

Table 1. Consistency Assessment of Aggregated Pairwise Matrices

Matrix	n	CR	Assessment
SEO factors	4	0.1058	Slightly above 0.10
Actors - direct comparison	3	0.0877	Acceptable
Actors | Social Innovativeness	3	0.0381	Acceptable
Actors | Social Risk-Taking	3	0.1564	Above 0.10
Actors | Social Proactiveness	3	0.0533	Acceptable
Actors | Socialness	3	0.0047	Acceptable
Strategies | Social Performance	5	0.0593	Acceptable
Strategies | Economic Performance	5	0.0201	Acceptable

Source: Authors' calculation based on AHP responses.

The two matrices exceeding the conventional consistency threshold warrant careful interpretation. The SEO-factor matrix has a CR of 0.1058, which marginally exceeds the recommended threshold of 0.10, whereas the actor matrix under social risk-taking has a CR of 0.1564, indicating a greater degree of inconsistency in the aggregated pairwise judgments. These values do not automatically invalidate the resulting priority weights; however, they indicate that the corresponding rankings may be sensitive to variations in expert judgments. Accordingly, the priority weights derived from these matrices should be interpreted cautiously rather than treated as definitive. A sensitivity analysis is therefore necessary to assess whether the principal conclusions remain stable when the influence of these matrices is examined.

Table 2. Priority of Social Entrepreneurial Orientation Dimensions

SEO Dimension	Weight	Rank
Social Innovativeness	0.5702	1
Social Risk-Taking	0.2257	2
Social Proactiveness	0.1332	3
Socialness	0.0710	4
Total	1.0001	-

Source: Authors' calculation based on AHP responses.

The factor-level results show a highly concentrated priority structure. Social innovativeness received a weight of 0.5702, accounting for more than half of the total SEO-factor priority. Social risk-taking ranked second at 0.2257, social proactiveness ranked third at 0.1332, and socialness ranked fourth at 0.0710. The difference

between the first and second positions is substantial: social innovativeness is approximately 2.5 times as important as social risk-taking in the aggregated expert judgment. This result indicates that experts view the capacity to formulate and implement new solutions as the principal SEO capability for sustainable MSME performance.

The ranking does not imply that the lower-weight dimensions are unimportant. AHP weights are relative to the defined goal and to the other elements in the comparison set. Social risk-taking remains the second most important capability, suggesting that innovation must be accompanied by willingness to commit resources under uncertainty. Social proactiveness and socialness receive smaller relative weights, which may reflect the practical sequencing of MSME capability development: experts appear to prioritize the ability to create new value first, then the ability to take calculated risks in pursuing it, before giving greater weight to anticipatory posture and formalized social orientation.

Table 3. Actor Priorities Across SEO Dimensions

SEO Dimension	MSME Actors	Stakeholders	Government / MSME Agencies
Social Innovativeness	0.6658	0.2593	0.0749
Social Risk-Taking	0.6736	0.2481	0.0783
Social Proactiveness	0.5856	0.3195	0.0948
Socialness	0.6267	0.2747	0.0986

Source: Authors' calculation based on AHP responses.

Table 4. Synthesized Actor Priorities

Actor	Global Weight	Rank
MSME Actors	0.6541	1
Stakeholders	0.2659	2
Government / MSME Agencies	0.0800	3

Source: Authors' calculation based on AHP responses.

MSME actors rank first across every SEO factor. Under social innovativeness, MSME actors receive a local weight of 0.6658, stakeholders 0.2593, and government/MSME agencies 0.0749. Under social risk-taking, the corresponding weights are 0.6736, 0.2481, and 0.0783. Under social proactiveness, MSME actors remain first at 0.5856, while the stakeholder weight increases to 0.3195, the highest value among the four SEO factors. Under socialness, MSME actors receive 0.6267, stakeholders 0.2747, and government/MSME agencies 0.0986.

After the conditional actor weights are synthesized using the SEO-factor priorities, MSME actors receive a global actor weight of 0.6541, stakeholders 0.2659, and government/MSME agencies 0.0800. A separate direct comparison of actors produces the same ordering, with weights of 0.7103, 0.2232, and 0.0664, respectively. The convergence of conditional synthesis and direct comparison strengthens the interpretation that entrepreneurial agency within the MSME is perceived as the primary driver of SEO implementation. The relatively high stakeholder weight under social proactiveness also suggests that anticipation of market and social change depends more heavily on external information, networks, and ecosystem interaction than do the other dimensions.

Table 5. Sustainability Objective Priorities by Actor

Actor	Social Performance	Economic Performance
MSME Actors	0.3777	0.6223
Stakeholders	0.4559	0.5441
Government / MSME Agencies	0.6169	0.3831
Synthesized global priority	0.4176	0.5824

Source: Authors' calculation based on AHP responses.

Objective priorities differ across actor groups. From the MSME-actor perspective, economic performance receives a weight of 0.6223 compared with 0.3777 for social performance. Stakeholders also prioritize economic performance, although less strongly, with weights of 0.5441 for economic and 0.4559 for social performance. Government/MSME agencies show the opposite pattern: social performance receives a weight of 0.6169 and economic performance 0.3831. This contrast is substantively important because it reveals different institutional logics within the same sustainability framework.

When actor priorities are synthesized, economic performance obtains a global weight of 0.5824 and social performance 0.4176. Thus, the expert panel does not reject the social objective; rather, it assigns economic

viability a somewhat higher immediate priority. The result is consistent with the practical requirement that small firms need sufficient revenue, market access, and resilience to continue producing social value. At the same time, the government pattern demonstrates why policy design should not be based solely on firm-level commercial preferences: public institutions place stronger emphasis on employment, inclusion, community welfare, and broader social benefits.

Table 6. Strategic Priorities for Social Performance

Strategic Alternative	Weight	Rank
Proactive marketing and digital market expansion	0.3500	1
Social-value-based product and business model innovation	0.2441	2
Business adaptation and risk management	0.1757	3
Ecosystem collaboration and multi-stakeholder partnerships	0.1523	4
Social mission integration and impact measurement	0.0778	5

Source: Authors' calculation based on AHP responses.

Table 7. Strategic Priorities for Economic Performance

Strategic Alternative	Weight	Rank
Proactive marketing and digital market expansion	0.3007	1
Business adaptation and risk management	0.2445	2
Ecosystem collaboration and multi-stakeholder partnerships	0.1673	3
Social-value-based product and business model innovation	0.1645	4
Social mission integration and impact measurement	0.1230	5

Source: Authors' calculation based on AHP responses.

Table 8. Global Ranking of SEO-Based MSME Sustainability Strategies

Rank	Strategic Alternative	Global Weight	Share (%)
1	Proactive marketing and digital market expansion	0.3213	32.13
2	Business adaptation and risk management	0.2158	21.58
3	Social-value-based product and business model innovation	0.1977	19.77
4	Ecosystem collaboration and multi-stakeholder partnerships	0.1610	16.10
5	Social mission integration and impact measurement	0.1041	10.41

Source: Authors' calculation based on AHP responses.

The strategy priorities were calculated separately under the social and economic objectives before global synthesis. Under social performance, proactive marketing and digital market expansion rank first with a weight of 0.3500. Social-value-based product and business model innovation ranks second at 0.2441, followed by business adaptation and risk management at 0.1757, ecosystem collaboration and multi-stakeholder partnerships at 0.1523, and social mission integration and impact measurement at 0.0778. The first-place position of digital market proactivity under a social objective is notable because it suggests that market access is viewed as a means of scaling social value rather than as a purely commercial intervention.

Under economic performance, proactive marketing and digital market expansion again rank first, with a weight of 0.3007. Business adaptation and risk management rise to second at 0.2445, ecosystem collaboration ranks third at 0.1673, social-value-based innovation ranks fourth at 0.1645, and social mission integration and impact measurement ranks fifth at 0.1230. Compared with the social-performance ranking, economic performance therefore gives greater relative importance to resilience, risk management, and collaboration, while innovation becomes less dominant at the strategy level.

The global synthesis confirms the stability of the leading strategy. Proactive marketing and digital market expansion obtain a global weight of 0.3213 and rank first. Business adaptation and risk management rank second at 0.2158, social-value-based product and business model innovation rank third at 0.1977, ecosystem collaboration and multi-stakeholder partnerships rank fourth at 0.1610, and social mission integration and impact measurement rank fifth at 0.1041. The top two alternatives together account for 53.71 percent of the total global priority, indicating that experts concentrate immediate strategic attention on market activation and resilience rather than on formal impact-management systems.

A sensitivity analysis was conducted to examine the robustness of the AHP priority rankings in response to the two aggregated matrices that exceeded the conventional consistency threshold: the SEO-factor matrix (CR = 0.1058) and the actor matrix under social risk-taking (CR = 0.1564). The baseline results identified social

innovativeness as the highest-priority SEO dimension (weight = 0.5702) and proactive marketing and digital market expansion as the highest-ranked global strategy (weight = 0.3213). Alternative scenarios were evaluated by recalculating the priority weights and global rankings under specified changes to the relevant pairwise-comparison inputs. The resulting priority weights and rankings were then compared with the baseline results to determine whether the principal conclusions remained stable.

Social Innovativeness as the Foundational Capability

The dominance of social innovativeness provides the clearest capability-level finding. From a Resource-Based View (RBV) perspective, innovation is a mechanism through which MSMEs recombine scarce resources to create differentiated value. The result is consistent with evidence that entrepreneurial orientation and innovation are important to the performance of social enterprises and MSMEs (Oduro, 2022; Rosyidiana & Narsa, 2024). It also aligns with studies showing that social entrepreneurial orientation and sustainability-related capabilities can support SME outcomes (Álvarez-García et al., 2022). The present AHP analysis adds a decision-priority perspective to this literature by showing that experts assign social innovativeness substantially greater relative importance than the other SEO dimensions within the sustainability decision hierarchy examined in this study.

The finding is also consistent with the Indonesian context. MSMEs often operate with limited capital, weak formal research and development capacity, and relatively low bargaining power. Under these constraints, the ability to innovate incrementally through packaging, local sourcing, service design, digital content, process improvement, or new distribution channels can create considerable value relative to the resources invested. Adam et al. (2024) report positive effects of innovativeness on Indonesian SME performance, while Munandar et al. (2025) show that business sustainability is connected to market and entrepreneurial capabilities. Social innovativeness adds a further requirement: innovation should not only improve commercial outcomes but also generate or protect social value.

Reconciling Social Innovativeness with Alternative Capability Priorities

Although social innovativeness receives the highest relative weight in this study, prior research suggests that its contribution to performance is contingent on organizational and institutional conditions. For example, Álvarez-García et al. (2022) found that social innovativeness did not directly influence green innovation, social performance, or economic performance among SMEs; instead, its effects operated indirectly through social proactiveness and risk-taking. Similarly, Oduro (2022), examining social enterprises in Ghana, found that risk-taking had the largest effect on innovation performance among the entrepreneurial-orientation dimensions examined. Evidence from Indonesian SMEs also complicates a universal innovation-first interpretation. Adam et al. (2024) reported positive performance effects for innovativeness, risk-taking, and strategic networking, while proactiveness had a negative effect. Together, these findings indicate that the relative contribution of entrepreneurial capabilities depends on the outcome being assessed, the organizational setting, and how capabilities are combined.

Research on institutional constraints further challenges the assumption that innovativeness should always dominate. Kovid et al. (2025) examined entrepreneurial competencies and institutional voids among Indian SMEs, while Akbar et al. (2017) showed that institutional voids can constrain SME export performance and weaken the contribution of marketing capabilities. Research on SMEs in emerging markets also identifies informal networks and relationships as mechanisms for addressing institutional gaps (*Searching for a New Perspective on Institutional Voids, Networks and the Internationalisation of SMEs in Emerging Economies*, 2021). These perspectives suggest that legitimacy, network embeddedness, access to finance, and institutional support may become more immediately important than innovation when firms lack reliable market information, enforceable contracts, or access to formal support systems.

The present finding should therefore be interpreted as a relative priority judgment within the study's defined AHP hierarchy, rather than as evidence that social innovativeness is universally the strongest determinant of MSME survival or performance. In the Indonesian MSME context examined here, experts may regard social innovativeness as a foundational capability because it enables firms to develop or adapt socially valuable offerings despite resource constraints. Nevertheless, innovation alone may be insufficient when enterprises cannot obtain market access, establish stakeholder trust, or mobilize complementary resources. Evidence from Vietnam shows that social capital and business networks are associated with SME innovation and performance (Pham Minh Vu et al., 2023), while research on European SMEs indicates that institutional connectedness, governance, management experience, and innovative capacity can jointly shape resilience (Chit et al., 2023). Thus, the contribution of this study is not to establish the universal superiority of innovation, but to identify its relative priority in an expert-based decision framework while recognizing the complementary role of institutional and relational capabilities.

Social risk-taking, which ranks second, appears to complement rather than compete with social innovativeness. Developing socially valuable products or services often requires MSMEs to commit resources under uncertain conditions. The ranking therefore suggests that experts view risk-taking as an important supporting capability that enables firms to pursue innovative solutions, rather than as an end in itself. This interpretation accommodates the mixed empirical evidence: do Adro et al. (2021) found that social risk acceptance does not necessarily improve nonprofit performance, whereas Oduro (2022) reported a stronger contribution of risk-taking to innovation performance. Taken together, these findings suggest that the value of risk-taking depends on the performance outcome and organizational context, as well as its interaction with other entrepreneurial capabilities.

Entrepreneurial Agency and the Role of the Ecosystem

The consistent dominance of MSME actors indicates that experts place primary responsibility for SEO implementation inside the enterprise. This interpretation is consistent with recent empirical evidence grounded in the Resource-Based View (RBV). Siddiqui and Rokade (2026), for example, found that entrepreneurial orientation positively influenced business innovation and small-business performance, while entrepreneurial competencies also contributed to performance. Their findings suggest that access to financial resources alone may be insufficient without the capabilities needed to deploy resources effectively. Similarly, Nurfauzan et al. (2026) found that digital capabilities mediate the relationship between leadership and entrepreneurial ambidexterity and sustainable performance among Indonesian SMEs, while government support strengthens the contribution of digital capabilities to sustainability outcomes. Together, these findings reinforce the distinction between providing resources and developing the internal capabilities required to convert them into business outcomes. Accordingly, government training, financing programs, digital infrastructure, and stakeholder partnerships should complement—not replace—the strategic decisions of MSME owners and managers concerning experimentation, market entry, organizational routines, and the integration of social objectives into business operations.

The result has an important policy implication. MSME development programs should avoid a dependency model in which public agencies are expected to directly drive business decisions. A more sustainable approach is capability enabling: programs should strengthen entrepreneurs' ability to make informed decisions, test innovations, interpret market signals, manage risk, and build networks. Bahtiar et al. (2025) similarly emphasize that Indonesian MSMEs face not only access problems but also constraints in digital literacy and technological skills. Ta and Lin (2023) show that digital transformation depends on the interaction among technology, organization, and environment, which means policy support is most effective when it improves firms' absorptive and implementation capacity.

Stakeholders nevertheless remain important, particularly under social proactiveness. Their local weight of 0.3195 is markedly higher than their weight under the other SEO dimensions. Proactive behavior relies on early information about changing consumer preferences, emerging digital practices, financing opportunities, community needs, and regulatory changes. MSME communities, associations, universities, financial institutions, supply-chain partners, and digital platforms can function as information and resource bridges. Aisjah et al. (2023) show that social capital and collaborative knowledge creation support SME innovation and business performance, reinforcing the interpretation that proactiveness is partly an ecosystem capability rather than only an internal disposition.

The role of networks also needs to be understood critically. Although networks can provide information, trust, legitimacy, and access to resources, their value is not necessarily uniform across firms or contexts. Doan et al. (2023), for example, report a nonlinear relationship between social capital and firm performance in transition economies, suggesting that more extensive social capital does not automatically generate greater returns. Similarly, research on SME networking in developed-market contexts shows that networking can support the development of marketing capabilities (Gliga & Evers, 2023), while evidence from emerging economies emphasizes the role of business and personal networks in supporting innovation and marketing (Pham Minh Vu et al., 2023). These findings suggest that networks are most useful when they provide resources that firms cannot efficiently develop internally.

Institutional conditions further influence whether networks and innovation can be translated into performance. In environments where contract enforcement, market information, or formal support mechanisms are weak, legitimacy and relationship-based access may become essential complements to entrepreneurial capabilities. Research on institutional voids indicates that institutional weaknesses can restrict firm performance and alter the value of internal capabilities (Akbar et al., 2017; Kovid et al., 2025). Consequently, the relatively low AHP weight assigned to socialness should not be interpreted as evidence that relationships and legitimacy are unimportant. Instead, it indicates that experts assigned them a lower relative priority within this particular

hierarchy. Their practical importance may increase where MSMEs face severe institutional constraints, lack trusted intermediaries, or depend on partnerships to access markets and resources.

This distinction also helps reconcile the study's rankings with research emphasizing institutional connectedness and collaborative ecosystems. The AHP hierarchy compares the relative priorities assigned by experts; it does not demonstrate that internal innovation can replace external relationships or institutional support. Rather, the results suggest that social innovativeness is viewed as the leading capability within the study's decision framework, while stakeholder relationships and institutional support remain potential conditions that enable this capability to produce sustainable outcomes.

Economic Viability and Social Value Are Sequentially Interdependent

The global objective weights indicate that economic performance takes priority over social performance, but the actor-level pattern prevents a simplistic conclusion that experts prefer profit over social value. MSME actors and stakeholders place more weight on economic performance, whereas government/MSME agencies place more weight on social performance. This divergence reflects differences in institutional exposure. Business owners directly face payroll, inventory, financing, cash flow, and customer acquisition pressures. Public agencies are accountable for broader objectives such as employment, inclusion, local development, and community welfare. Sustainable policy must therefore connect rather than erase these perspectives.

The result is consistent with hybrid social-enterprise research. Pinheiro et al. (2021) show that social entrepreneurship and market orientations jointly matter for social enterprise performance. Zafar et al. (2022) find that social performance can mediate the relationship between SEO and financial performance, indicating that social and economic outcomes may reinforce each other. Cheah et al. (2023) similarly examine financial and social achievement as distinct but simultaneous outcomes of entrepreneurial and social orientations. More recent Indonesian evidence from agricultural social enterprises shows that SEO contributes to both financial and social performance under environmental turbulence (Wahyudi et al., 2025). These studies support interpreting the economic priority not as displacement of the social mission but as a viability condition for maintaining it.

The finding also has relevance for MSME program evaluation. If government programs are assessed only by short-term business revenue, social benefits may be undercounted. Conversely, if programs emphasize beneficiary numbers or social activities without tracking business viability, interventions may not be sustainable after public support ends. A dual dashboard covering economic and social performance would align more closely with the logic of SEO. The AHP weights can guide relative emphasis, while the actor-specific results remind evaluators that weighting can legitimately differ across institutional perspectives.

Why Proactive Digital Market Expansion Is the First Strategic Priority

The most consequential strategic result is the first-place ranking of proactive marketing and digital market expansion under both objectives and in the global synthesis. This result can be understood as the point at which entrepreneurial capability meets market realization. An MSME can possess socially innovative products, but innovation does not create sustainable outcomes unless it reaches customers, communicates value, generates revenue, and achieves sufficient scale. Digital channels reduce some of the geographic and communication barriers that have traditionally limited small businesses, while proactive marketing helps firms identify and shape demand rather than waiting for customers to discover them.

The result is supported by empirical evidence on digitalization and SME performance. Vrontis et al. (2022) find that the adoption of digital technologies contributes to SME economic sustainability and social value creation, and that entrepreneurial orientation strengthens these effects. Nasiri et al. (2022) show that digital orientation is associated with sustainable innovation among small businesses. Gao et al. (2023) demonstrate that e-commerce and digital marketing are relevant to MSME financial and sustainability outcomes. AlKoliby et al. (2024) show that digital marketing can contribute to sustainable performance through innovation. These studies suggest that digitalization is not a stand-alone technological decision; it is a capability amplifier that enables entrepreneurial orientation to translate into observable performance.

The Indonesian evidence is particularly consistent with the ranking. Bahtiar et al. (2025) identify digital transformation as a central opportunity for MSME competitiveness and sustainability while also noting barriers related to access and skills. Rosyidiana and Narsa (2024) show that digitalization, literacy, and innovation are relevant to MSME financial performance in the post-pandemic recovery period. Munandar et al. (2025) find that internet marketing and entrepreneurial factors contribute to business sustainability and marketing performance. In this context, the AHP ranking suggests that investments in SEO should be directly connected to practical digital marketing routines, including customer analytics, social media content, marketplace optimization, digital branding, online relationship management, and experimentation with new market segments.

The first-place ranking under social performance is equally important. It indicates that experts do not view market expansion as antithetical to social value. When a socially valuable product reaches a broader market, the number of beneficiaries, community suppliers, workers, or local partners may also expand. Digital channels can make social narratives visible, build trust, and connect purpose-driven MSMEs with consumers who value responsible products. The strategic implication is that social enterprises and socially oriented MSMEs should avoid treating marketing as merely promotional. Proactive digital marketing is part of the mechanism through which social value can be scaled and financially sustained.

However, digital market expansion is not equally accessible to all MSMEs. Firms with limited digital literacy, unreliable connectivity, inadequate financing, or weak logistics may not immediately benefit from digital channels. The potential benefits identified in prior research should therefore not be interpreted as automatic effects. Instead, the AHP ranking points to digital market expansion as the highest relative strategic priority, while implementation needs to be adapted to firms' capabilities, infrastructure, and market conditions.

Why the Highest-Priority Capability Is Not the Highest-Priority Strategy

A central contribution of this study emerges from the apparent divergence between the factor and strategy rankings. Social innovativeness ranks first among SEO capabilities, yet the innovation strategy ranks third globally, behind proactive digital market expansion and business adaptation and risk management. This is not necessarily a contradiction. It reflects the difference between a foundational capability and an implementation priority. Capabilities describe what the organization must be able to do; strategies describe where to direct limited resources next, given the objective structure and current constraints.

The result implies that experts see innovation as the foundation of SEO but do not believe that additional investment in product or business-model innovation should necessarily be the first intervention. An MSME may already have a differentiated product or a socially valuable proposition but remain constrained by weak market access, unstable cash flow, or limited risk-management capacity. In that situation, further innovation can add complexity without improving sustainability. By contrast, digital market expansion can commercialize existing innovation, while adaptation and risk management can protect the firm long enough for innovation to generate returns. This sequencing logic is consistent with the RBV: a valuable resource produces performance only when complementary organizational capabilities enable its deployment.

The distinction also helps interpret why social proactiveness has a smaller factor weight but a proactiveness-oriented strategy ranks first. The strategic alternative is broader than the factor itself: proactive digital marketing combines market information, technology, customer engagement, branding, and channel expansion. Its value, therefore, depends not only on social proactiveness but also on social innovativeness, actor capability, and economic and social objectives. AHP captures the synthesis of priorities across the hierarchy, yielding a final strategy ranking that differs from a simple restatement of factor weights.

Importantly, this distinction should not be taken as evidence that AHP resolves the underlying tension between innovation and resource scarcity. AHP organizes expert judgments into a transparent hierarchy and identifies the relative priorities implied by those judgments. It does not establish causal effects, demonstrate that a particular sequence will produce superior performance, or eliminate trade-offs among competing uses of scarce resources. The practical value of the findings is therefore decision support: they offer a structured basis for discussion and resource allocation that should be tested against implementation outcomes.

Adaptation and Risk Management as the Second Strategic Priority

Business adaptation and risk management ranks second globally, and its importance rises under the economic objective. This result is consistent with the operating reality of MSMEs, which commonly face demand volatility, limited working capital, supplier disruption, financing constraints, and rapid technological change. Entrepreneurial behavior, therefore, requires both a willingness to pursue opportunities and mechanisms to contain downside risk. The priority should be interpreted as support for disciplined experimentation rather than risk avoidance.

This finding complements the second-place ranking of social risk-taking at the factor level. Experts value risk-taking, but the strategy they prioritize is not simply to take more risk. Instead, it is to improve the firm's capacity to take risks intelligently through diversification, financial planning, phased testing, alternative financing, cash-flow monitoring, and contingency planning. Such an interpretation can help policymakers design more effective entrepreneurship programs. Training that encourages boldness without building risk-management skills may increase vulnerability, whereas programs that combine opportunity recognition with scenario planning and financial discipline can support entrepreneurial resilience.

The result also resonates with the literature on sustainability under turbulent conditions. Wahyudi et al. (2025) show that SEO helps agricultural social enterprises navigate environmental turbulence, while Ferreira

and Ferreira (2024) identify organizational and contextual capabilities as important drivers or inhibitors of sustainable entrepreneurship. The strategic implication is that resilience should be built into SEO programs rather than treated as a separate crisis-management topic.

At the same time, the priority assigned to adaptation and risk management should be interpreted in relation to the resources available to each enterprise. Formal risk-management systems may be costly or impractical for very small businesses. Accordingly, implementation can begin with accessible practices, such as monitoring cash flow, maintaining basic financial records, testing new products on a limited scale, diversifying sales channels where feasible, and preparing alternatives for critical suppliers. Such measures connect entrepreneurial initiative with the financial discipline needed to sustain it.

Collaboration and Social Impact Measurement as Enabling and Maturity Strategies

Ecosystem collaboration ranks fourth globally, but its weight of 0.1610 remains substantial. The position should not be interpreted as evidence that collaboration is peripheral. Rather, collaboration appears to operate as an enabling infrastructure for higher-ranked actions. Partnerships can provide market access, knowledge, financing, technology, training, and legitimacy that support digital expansion, innovation, and adaptation. Aisjah et al. (2023) show the importance of social capital and collaborative knowledge creation for Indonesian SME performance, and Ta and Lin (2023) highlight the role of government and environmental support in digital transformation. Therefore, ecosystem collaboration may be most valuable when it is purposefully linked to a defined capability gap rather than pursued as an end in itself.

This interpretation also helps reconcile the lower relative ranking of ecosystem collaboration with studies that emphasize networking in emerging economies. In settings where formal institutions provide limited support, informal networks can help entrepreneurs overcome resource and information constraints. Paudel (2025), for instance, found that informal networks characterized by trust, network size, and family relationships were positively associated with business performance among SMEs in Nepal. Similarly, Amankwah-Amoah et al. (2026) demonstrated that SMEs in Ghana cultivate diverse relationships and develop collaborative learning capabilities to navigate institutional voids and access heterogeneous resources. These findings suggest that networks can serve as important mechanisms for addressing institutional deficiencies, although their role should be interpreted in relation to the conditions in which firms operate. Where formal market-supporting mechanisms function more effectively, firms may have alternative channels for accessing information and resources. Therefore, the importance of ecosystem collaboration is likely to vary with institutional conditions, the type of resources sought, and enterprise maturity. Its lower relative AHP ranking in this study should not be interpreted as a universal indication that network-based resources are less valuable.

Social mission integration and impact measurement rank fifth. This finding requires careful interpretation because the study is explicitly based on SEO. A low relative weight does not indicate that social mission is irrelevant; the social mission is already embedded in the overall decision framework. Instead, formal impact measurement may be perceived as less urgent than market access, resilience, and innovation for many MSMEs at their current stage of development. Small firms often lack dedicated staff, data systems, and reporting routines required for systematic impact measurement. Kimakwa and Abebe (2025) show that balancing social mission and business expertise is important for social venture performance, while Alfina et al. (2026) highlight the relationship between SEO, social innovation, competitive advantage, and social enterprise performance. These studies suggest that impact systems can become more valuable as firms mature and seek stronger legitimacy, partnerships, or external finance.

A staged implementation model is therefore appropriate. Early-stage MSMEs can first strengthen innovation, market access, and risk management; growing firms can then deepen collaboration and formalize social-impact metrics. Such sequencing preserves the social mission while avoiding the administrative burden of imposing sophisticated impact systems before the underlying business is economically stable. Nevertheless, basic social-impact awareness should be maintained from the beginning so that commercial expansion does not gradually displace the enterprise's intended social purpose.

Theoretical, Managerial, and Policy Implications

Theoretically, this study adds a decision-priority perspective to SEO research. Previous studies have largely examined whether SEO or its dimensions affect performance, innovation, or social value (do Adro et al., 2021; Makeel et al., 2022; Oduro, 2022; Zafar et al., 2022). The present analysis distinguishes between explanatory relevance and decision priority. Social innovativeness is the dominant capability in the expert judgments, whereas proactive digital market expansion is the dominant intervention in the synthesized hierarchy. This distinction can help future research separate the question of which capability is considered important from the question of which action should receive resources first. It also illustrates how the RBV can inform a resource-allocation problem alongside its more conventional use in explaining performance differences.

The study's contribution should nevertheless be understood within the limits of its method. AHP converts expert judgments into a structured set of relative priorities; it does not independently establish that the highest-ranked capability causes the strongest performance improvement. Nor does it resolve theoretical tensions concerning the relationship between resource scarcity, innovation, legitimacy, and institutional support. The findings instead provide a transparent decision framework that can be compared with observed implementation outcomes and tested in different contexts.

Managerially, MSME owners should connect innovation with commercialization and resilience. A practical sequence suggested by the results is to identify socially relevant innovation opportunities, test them with controlled resource commitments, use digital channels to validate and expand demand, and establish risk controls that protect liquidity and business continuity. Collaboration should be built around specific resource gaps, such as market access, finance, technology, or expertise. Social-impact measurement can then be formalized as the enterprise matures and needs stronger accountability or partnership legitimacy. This sequence is a decision implication derived from the AHP priorities, not a proven causal pathway; managers should adapt it to their enterprise's current constraints and opportunities.

For policy, the actor results indicate that government should act primarily as an enabler rather than as a substitute decision-maker. Public programs can be reoriented toward capability building through social innovation labs, digital-market coaching, market intelligence, risk-management training, collaborative platforms, and outcome-based mentoring. Because government experts place greater weight on social performance than business actors do, program design should explicitly connect economic and social indicators. This can reduce the gap between enterprise survival objectives and public-development objectives. The results also support differentiated interventions rather than generic MSME training, consistent with Indonesian evidence that micro and small firms have different capability profiles and sustainability needs (Munandar et al., 2025).

Policy design should also recognize that not every MSME faces the same institutional conditions. Enterprises with limited access to finance, market information, formal support, or reliable infrastructure may require foundational assistance before they can benefit fully from innovation and digital expansion. In such cases, access to trusted networks, market intermediaries, and institutional support may be a necessary complement to firm-level capability development. The findings therefore support combining innovation-oriented programs with practical measures that reduce barriers to market participation and strengthen the conditions under which MSMEs can convert capabilities into sustainable outcomes.

Limitations and Future Research

Several limitations should be considered when interpreting the findings. First, the study relies on a purposively selected panel of 11 experts representing government, MSME practitioners, and MSME community administrators or stakeholder organizations. Although these participants provide perspectives relevant to the study's decision hierarchy, their judgments may be affected by professional experience, institutional priorities, or selection bias. The resulting priorities should therefore not be treated as representative of all Indonesian MSMEs or all actors involved in MSME development. Future research could expand the panel to include a more diverse range of regions, industries, enterprise sizes, business-development organizations, and social-enterprise practitioners. Comparing the judgments of different stakeholder groups would help determine which priorities are shared and which are context-specific.

Related empirical studies further support the need to interpret entrepreneurial capabilities alongside digital-market conditions. In Indonesia, Fiona et al. (2024) found that entrepreneurial orientation strengthened the relationship between social media use and MSME performance, suggesting that digital tools may be more effective when supported by an entrepreneurial mindset. Patma et al. (2021) also examined social media marketing in relation to Indonesian SMEs' sustainability, highlighting the relevance of digital engagement to business continuity. More recently, Hidayati et al. (2025) found that entrepreneurial and market orientations were important predictors of digital marketing capabilities and marketing performance among SMEs in North Sumatra. Taken together, these studies suggest that digital expansion should not be treated as an isolated intervention; its value may depend on firms' entrepreneurial capabilities, market orientation, and ability to use digital channels strategically. This evidence complements the present AHP findings by underscoring the importance of aligning capability development with market-facing actions, while leaving open the question of whether the specific priority rankings identified in this study lead to better outcomes across different MSME contexts.

Related empirical evidence further suggests that the prioritization of entrepreneurial capabilities should be interpreted in conjunction with firms' digital readiness, market conditions, and business context. Nasiri et al. (2022) found that digital orientation was positively associated with sustainable innovation among small

businesses, while external market and technological conditions also shaped the innovation environment. Similarly, evidence from SMEs across multiple countries indicates that innovation, digitalization, and sustainability are interconnected with firms' growth dynamics, although entrepreneurs' growth ambitions may limit the adoption of these strategies (Avelar et al., 2024). In Indonesia, Munandar et al. (2025) examined entrepreneurial marketing, internet marketing, market orientation, and social entrepreneurship orientation in relation to MSME sustainability, marketing performance, and competitiveness, highlighting the need to differentiate support according to enterprise characteristics. Together, these findings reinforce the importance of interpreting the AHP rankings as context-sensitive resource-allocation priorities rather than universally applicable prescriptions. They also suggest that future research should examine whether the capabilities prioritized by experts translate into measurable outcomes under different levels of digital readiness, market turbulence, and institutional support.

Second, AHP is a multi-criteria decision-making method that organizes pairwise judgments into relative weights. It does not establish causal relationships between SEO dimensions, strategic alternatives, and actual firm performance. Accordingly, the rankings reported here should be interpreted as expert-based priorities rather than estimates of the actual effects of particular strategies on business outcomes. Future studies could combine AHP with firm-level surveys, longitudinal performance data, or causal modeling to examine whether the strategies prioritized by experts are associated with improved economic and social outcomes in practice. Such designs would also help establish whether priorities differ across sectors, regions, enterprise maturity levels, and institutional environments.

Third, two aggregate pairwise-comparison matrices exceeded the conventional consistency-ratio threshold of 0.10: the SEO-factor matrix, with a CR of 0.1058, and the actor matrix under social risk-taking, with a CR of 0.1564. The original judgments were retained rather than adjusted post hoc, but these consistency results warrant caution, particularly for the actor comparison under social risk-taking. Future research should examine the sensitivity of the final rankings to changes in the underlying judgments and, where feasible, repeat the relevant comparisons with experts to improve consistency. Any sensitivity analysis should be conducted using the original pairwise-comparison matrices and reported transparently so that readers can assess whether the principal priorities remain stable under plausible changes in the judgments.

Fourth, AHP rankings may be sensitive to changes in the decision hierarchy and the alternatives included. Adding, removing, or redefining strategies can affect relative priorities and may produce rank reversal. The ranking of proactive digital market expansion as the highest-priority strategy should therefore be understood in relation to the specific alternatives, criteria, and expert judgments used in this study. Future research could test alternative hierarchy structures, include additional strategic alternatives, and assess whether the same priorities emerge under different model specifications.

Finally, the study focuses on Indonesian MSMEs, whose operating conditions and institutional environment may differ from those of SMEs in developed economies or other emerging markets. Institutional quality, access to finance, digital infrastructure, market maturity, and the availability of business-support networks may alter the relative importance of innovation, risk-taking, proactiveness, and socialness. Cross-country and cross-regional studies could test these boundary conditions and examine whether innovation remains the highest-priority SEO dimension under different institutional arrangements. Longitudinal studies could further assess whether priorities shift as enterprises grow, gain market access, strengthen their networks, and formalize social-impact measurement.

Taken together, these limitations do not invalidate the study's decision-oriented contribution, but they define the scope within which its findings should be interpreted. The results provide an expert-based prioritization framework for sustainable MSME performance, while further validation is needed to determine how stable these priorities are across decision contexts and whether they translate into measurable improvements in economic and social performance.

Conclusions

This study used the Analytic Hierarchy Process (AHP) to prioritize Social Entrepreneurial Orientation (SEO) capabilities and strategies for sustainable MSME performance. The results identify social innovativeness as the highest-priority SEO dimension, with a weight of 0.5702, followed by social risk-taking (0.2257), social proactiveness (0.1332), and socialness (0.0710). At the strategic level, proactive marketing and digital market expansion ranks first (0.3213), followed by business adaptation and risk management (0.2158), social-value-based product and business model innovation (0.1977), ecosystem collaboration and multi-stakeholder partnerships (0.1610), and social mission integration and impact measurement (0.1041). This distinction between capability priority and intervention priority shows that the SEO capability considered most important

by experts does not necessarily correspond to the strategy receiving the highest overall priority. Economic performance also receives a higher priority weight (0.5824) than social performance (0.4176), suggesting that experts emphasize economic viability while recognizing the importance of creating social value. These findings provide a structured basis for prioritizing SEO-related strategies, although the weights represent expert judgments rather than evidence of causal effects on MSME performance. The findings should be interpreted in light of the consistency of the pairwise-comparison judgments. Based on Saaty's conventional threshold of a consistency ratio (CR) ≤ 0.10, two aggregate matrices exceeded the acceptable threshold: the SEO-factor matrix (CR = 0.1058) and the actor matrix under social risk-taking (CR = 0.1564). The first slightly exceeds the threshold, whereas the second shows a more substantial inconsistency. The original judgments were retained without post hoc adjustment; however, the resulting priority weights should be interpreted cautiously because the robustness of the final rankings has not yet been established through sensitivity analysis. Therefore, this study does not claim that the strategic rankings are fully robust under alternative judgments or aggregation procedures. Future research should use the original pairwise-comparison matrices to conduct sensitivity analyses, assess whether the rankings remain stable when inconsistent judgments are excluded or reassessed, and validate the priorities using larger expert panels and empirical MSME performance data. These steps are necessary to strengthen confidence in the rankings and determine the extent to which the findings can be generalized across sectors and institutional contexts.

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