

Leading for Sustainability in Crisis: MSMEs Evidence from Banten Indonesia

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Abstract

MSMEs in Banten, Indonesia have faced unprecedented challenges during recent crises including the COVID-19 pandemic, economic disruption, and digital transformation pressures. While leadership's role in organizational resilience has received scholarly attention, how MSME leaders specifically enable sustainability practices under crisis constraints remains underexplored. This study investigates the mechanisms through which adaptive leadership facilitates sustainability practices in MSMEs operating under crisis conditions in Banten, Indonesia. Employing a qualitative interpretive approach, we conducted in-depth interviews with 18 MSME owner-managers and thematic analysis of crisis adaptation narratives. Findings reveal that crisis-responsive leadership operates through three integrated mechanisms: (1) strategic reorientation that reframes sustainability as cost-efficiency and stakeholder retention rather than compliance burden; (2) resource mobilization by leveraging community networks and informal financing; and (3) capability building through experiential learning and collective action. The study demonstrates that sustainability in crisis contexts is not a luxury but an adaptive strategy that enhances long-term viability. Novelty emerges in three dimensions: theoretically, by reconceptualizing sustainability as an outcome of adaptive leadership rather than a standalone management system; empirically, through detailed evidence from Indonesia's vulnerable MSME ecosystem; and methodologically, through interpretive analysis capturing the lived experiences of Banten MSMEs navigating simultaneous economic and digital disruptions. These findings offer practical guidance for MSME leaders and policymakers in designing context-responsive sustainability initiatives that strengthen resilience under persistent uncertainty.

Keywords:

Adaptive leadership, crisis management, MSMEs, organizational resilience, sustainability practices.



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INTRODUCTION

The Indonesian economy relies substantially on micro, small, and medium enterprises (MSMEs), which constitute over 99% of all businesses and employ approximately 116 million workers (Saputra et al., 2025). However, MSMEs remain structurally vulnerable to external shocks due to limited financial resources, weak organizational capacity, and dependence on informal supply chains. Banten, as Indonesia's third-largest economic zone and home to significant manufacturing and service-based MSMEs, experienced severe disruption during the COVID-19 pandemic, with approximately 60% of MSMEs reporting operational shutdowns and revenue losses exceeding 50% (Hidayat et al., 2025). Beyond the pandemic, Banten MSMEs face compounding crises including economic volatility, rapid digital transformation, supply chain instability, and growing pressure to adopt sustainability practices amid resource constraints.

The intersection of crisis conditions and sustainability imperatives creates a paradox for MSME leaders: maintaining viability while adopting practices traditionally associated with resource-intensive compliance regimes. This paradox is accentuated in emerging economies where MSMEs lack financial cushions, technical expertise, and access to institutional support systems (Juniansyah et al., 2025). Yet research demonstrates that crisis events can catalyze organizational adaptation when leaders possess

the cognitive flexibility and relational networks to reframe constraints as opportunities (Long et al., 2025). Understanding how leadership enables this reframing—particularly in enabling sustainability practices as adaptive rather than burdensome—remains theoretically underdeveloped and empirically sparse in the Indonesian MSME context.

State of the Art: Crisis Leadership, Sustainability, and MSME Resilience

Crisis leadership literature emphasizes situational adaptability, rapid decision-making, and transparent communication as critical capabilities (Baah, 2025). Recent scholarship identifies adaptive leadership as central to organizational resilience, defined as the capacity to anticipate disruptions, absorb shocks, and recover while maintaining or improving performance (Abubakar, 2026). In SME contexts specifically, studies show that leaders who combine task-oriented crisis management with relational support enhance employee engagement and operational continuity (Sharma, 2024). However, most crisis leadership studies focus on large organizations or specific industries (healthcare, disaster response), leaving MSME contexts underexplored.

Simultaneously, sustainability research increasingly recognizes that environmental and social practices need not constrain business performance. Recent MSME studies document that digital-green integration, resource efficiency, and community engagement generate competitive advantage by reducing waste, enhancing brand loyalty, and improving supply chain resilience (Andriyansah & Sukendri, 2025). Studies of Indonesian MSMEs specifically demonstrate that organizational resilience mediated by digital transformation and sustainable practices significantly enhance post-crisis performance (Pandey, 2026). Yet these studies examine sustainability and resilience as separate constructs, missing the dynamic relationship through which leadership integrates them under crisis constraints.

The literature on sustainable leadership emphasizes transformational and ethical approaches (Ong et al., 2025), but less is known about how these approaches manifest in resource-constrained contexts where leaders must reconcile immediate survival with long-term viability. A critical gap exists between crisis management literature (focused on short-term response) and sustainability literature (focused on long-term outcomes), particularly regarding how leaders bridge this temporal tension in MSMEs.

Research Gap and Explication

Extant research reveals three interconnected gaps. First, while studies document MSME crisis responses and resilience strategies, they rarely interrogate the specific leadership mechanisms through which sustainability practices are integrated into crisis adaptation. Most research treats sustainability and crisis response as sequential or parallel processes rather than mutually reinforcing strategies. Second, sustainability research in Indonesian MSMEs has concentrated on specific sectors (culinary, textile, tourism) and specific practices (digital adoption, green innovation), without theorizing how leaders coordinate these practices holistically under crisis conditions. Third, empirical evidence from Banten MSMEs specifically remains limited despite Banten's strategic economic importance and exposure to multiple concurrent crises.

This study addresses these gaps by asking: *How do MSME leaders in Banten, Indonesia enable sustainability practices as adaptive strategies during crises?* This framing assumes that sustainability is not external to crisis management but rather embedded within resilience-building processes when reframed through adaptive leadership.

Research Objective and Novelty

The study's single, clear research objective is to explain how adaptive leadership facilitates the integration of sustainability practices into crisis management strategies among MSMEs in Banten, Indonesia.

The research generates novelty across three dimensions. Theoretically, it reconceptualizes sustainability as an outcome of adaptive leadership rather than a compliance mandate imposed externally. By grounding sustainability in crisis contexts, the study extends contingency theory and adaptive capacity frameworks to explain how constraints can catalyze innovation. Empirically, it provides detailed evidence from Banten MSMEs—a context combining economic significance with acute vulnerability—demonstrating that sustainability is feasible and functional for resource-constrained firms when leaders reframe it strategically. Methodologically, it employs interpretive qualitative analysis that captures the lived experiences, decision-making rationales, and relational

processes through which leaders navigate simultaneous crises, offering nuanced understanding unavailable through quantitative measurement alone.

METHOD

Research Design and Approach

This study employs a qualitative interpretive research design grounded in phenomenological and case study traditions. Qualitative methodology aligns with the research objective because the study seeks to understand how leaders *experience, interpret, and enact* adaptive strategies rather than to quantify relationships between variables. Interpretive epistemology acknowledges that meaning emerges through the interaction between researchers and participants, and that crisis experiences are socially constructed within specific organizational and community contexts (Zakaria et al., 2025). The research design emphasizes thick description of context, reflexive engagement with participant narratives, and iterative analysis to generate theoretical insight.

Research Context and Participants

The study was conducted in Banten Province, Indonesia, between March and September 2024. Banten, with headquarters in Serang, is Indonesia's third-largest economy by GDP and hosts significant manufacturing clusters (petrochemicals, textiles, food processing), service sectors (logistics, tourism), and informal trade networks. The province experienced particularly acute pandemic disruption (lockdowns from March 2020 to June 2021, with subsequent economic recovery instability) followed by digital disruption pressures and regulatory changes including national sustainability reporting mandates introduced in 2023.

Participants comprised 18 MSME owner-managers (13 male, 5 female) operating across manufacturing (7 firms), services (6 firms), and trade/food (5 firms) sectors. Selection employed purposive sampling with explicit criteria: (1) firms classified as MSME (fewer than 250 employees, annual revenue under IDR 50 billion) under Indonesian law; (2) at least 3 years operational history prior to 2020 COVID disruption; (3) experienced significant operational disruption during 2020-2023 crisis period; (4) implemented at least two sustainability-related practices (digital adoption, supply chain reorganization, environmental management, community engagement, or product/service innovation); (5) owner or senior manager willingness to discuss leadership decisions and crisis experiences. These criteria ensured participants had both crisis experience and observable sustainability initiatives, enabling exploration of their integration.

Participant firms averaged 65 employees (range: 12-220), with average annual revenue of IDR 8.2 billion (range: IDR 2-45 billion). Crises experienced included pandemic lockdowns (100%), supply chain disruptions (100%), cash flow problems (94%), labor availability issues (83%), demand reduction (89%), and pressure to digitalize (100%). All participants remained operationally active through 2024, distinguishing them from firms that closed permanently—a deliberate sampling choice to investigate resilience mechanisms.

Data Collection

In-depth semi-structured interviews formed the primary data source. Interviews (mean duration: 72 minutes, range: 50-105 minutes) were conducted individually in Bahasa Indonesia at participant firm locations or alternative convenient venues. Interview protocol comprised four sections:

Section 1: Crisis Experience and Organizational Response asked participants to narrate their firms' crisis experiences chronologically, identifying key turning points, critical decisions, and outcomes. This narrative approach elicited participants' own frameworks for interpreting crisis severity and response priorities.

Section 2: Leadership and Decision-Making explored how leaders made decisions under uncertainty, managed employee relations during disruption, communicated with stakeholders, and adapted business models. Questions examined emotional, cognitive, and relational dimensions of leadership: *How did you personally respond to initial crisis shock? How did you involve employees in problem-solving? What factors influenced your key decisions?*

Section 3: Sustainability Practices and Crisis Integration explicitly addressed sustainability, asking participants to describe practices they had implemented (or attempted), their motivations, implementation processes, perceived benefits and challenges, and connections to crisis adaptation. Sustainability was deliberately presented broadly (environmental, social, economic, and governance aspects) to avoid researcher-imposed definitions.

Section 4: Leadership Reflections and Future Orientation asked participants to reflect on lessons learned, constraints they faced, support they received, and how their leadership approaches had changed due to crisis experiences. This section generated meta-level insights into adaptive learning processes.

Secondary data included firm documentation (business plans, crisis response memoranda, employee communications, sustainability reports or initiatives), local government records, and researcher field notes. Documentation was triangulated with interview accounts to verify factual claims and capture organizational artifacts embodying leadership decisions.

Data Analysis

Thematic analysis followed an interpretive approach informed by Braun and Clarke's six-phase framework, adapted for the study's theoretical focus on adaptive leadership and sustainability integration. Analysis occurred iteratively during and after data collection.

Phase 1: Familiarization involved repeated reading of transcripts (transcribed verbatim by research assistant, then verified by lead researcher), memo-writing capturing initial impressions, and preliminary identification of crisis dimensions and leadership responses mentioned across participants.

Phase 2: Initial Coding applied open line-by-line coding to all transcripts, generating descriptive codes capturing concrete actions, decisions, and experiences (e.g., "revenue diversification," "online platform adoption," "employee retention efforts," "community partnerships"). Coding prioritized participant language and categories rather than imposing predetermined frameworks.

Phase 3: Focused Coding organized initial codes into larger conceptual groupings around leadership actions (decision-making, stakeholder engagement, organizational adaptation, learning), crisis responses (operational, financial, market, organizational), and sustainability dimensions (economic viability, social relationships, environmental practices, governance structures). At this stage, connections between crisis response and sustainability practices began emerging.

Phase 4: Theme Development synthesized focused codes into overarching themes through abductive reasoning—iteratively comparing codes to theoretical concepts and research questions. Four primary themes emerged: (1) *Reframing Crisis as Strategic Opportunity*, encompassing how leaders cognitively reinterpreted constraints; (2) *Adaptive Resource Mobilization*, capturing how leaders leveraged informal networks, creative financing, and community collaboration; (3) *Sustainability as Operational Efficiency*, revealing how sustainability practices functioned as cost-reduction and risk-mitigation mechanisms; (4) *Experiential Leadership Development*, showing how crisis experiences transformed leader capabilities and orientations. Cross-cutting theme *Temporal Tension in Leadership* captured the constant navigation between immediate survival and longer-term sustainability.

Phase 5: Member Checking involved presenting preliminary findings to 8 participants (44% of sample) in feedback sessions where they reviewed thematic analysis, confirmed interpretations, and suggested refinements. Participants generally affirmed interpretations while clarifying nuances (e.g., distinguishing between deliberately planned sustainability strategies versus improvised adaptations with sustainability co-benefits). Two participants noted additional themes around gendered leadership differences in crisis response—emergent insight documented but not fully developed within this manuscript's scope.

Phase 6: Analytical Refinement and Reporting involved final articulation of themes in relation to research questions and theoretical frameworks, examining within-case and cross-case patterns, and identifying variations (e.g., sector differences, owner demographic factors influencing leadership approaches).

Trustworthiness and Ethical Considerations

Credibility was enhanced through: (1) prolonged engagement during extended research period (7 months); (2) triangulation across interviews, documentary evidence, and researcher observation; (3) reflexive engagement whereby researchers acknowledged their positionality as Indonesian researchers studying own national context (both enabling cultural understanding and requiring conscious mitigation of taken-for-granted assumptions); (4) member checking with participant subsample validating interpretations.

Dependability was addressed through: (1) audit trail documenting research decisions (sampling rationale, analytical choices, theme evolution); (2) transparent reporting of coding procedures and analytical transitions; (3) thick description of methodology enabling future researchers to evaluate appropriateness of methods for research questions.

Confirmability involved: (1) explicit documentation of data sources and analytical procedures; (2) avoidance of researcher bias through independent coding of five randomly selected transcripts by

second analyst, with 86% agreement on initial codes; (3) presentation of both confirming and disconfirming evidence (tensions between themes, participant disagreements, instances where sustainability-crisis integration failed).

Ethical considerations included: (1) informed consent with full disclosure of research purpose, confidentiality protections, and voluntary participation; (2) confidentiality through anonymization (firms referenced as M1-M18, personal identifiers removed); (3) reciprocity through researcher commitment to disseminate findings to participant firms and local government; (4) minimization of burden by conducting interviews at convenient times/locations; (5) ethical approval from institutional review board prior to research commencement; (6) sensitivity to power dynamics whereby researchers acknowledged their academic position relative to MSME owner-managers, maintaining non-hierarchical interaction norms.

RESULTS AND DISCUSSION

Crisis Context and MSME Survival Challenges in Banten

Banten MSMEs experienced a convergence of acute and chronic crises between 2020 and 2024. The COVID-19 pandemic triggered immediate operational disruption: lockdowns (March-June 2020, recurrent January-June 2021) eliminated market access for retail and service firms, while supply chain disruptions cascaded through manufacturing. Sixteen of 18 participant firms reported forced closures during lockdowns; average revenue decline was 58% in 2020 compared to 2019 (Hidayat et al., 2025). Recovery remained fragile due to demand uncertainty, consumer purchasing power reduction, and labor availability fluctuations as workers migrated from urban to rural areas.

Simultaneously, firms faced digital transformation pressures. Government digitalization mandates, competitive market shifts, and the emergence of online commerce platforms created pressure to establish e-commerce capabilities and digital payment systems. For MSMEs with limited IT expertise and capital, this represented an additional crisis layer rather than an opportunity. Participants described digital transformation as "necessary for survival" yet "overwhelming given our resources." One manufacturing MSME leader (M7) articulated this tension: "During pandemic we couldn't focus on anything except keeping cash flowing. Now government expects us to digitalize, banks want online records, customers demand e-commerce. We're running but not standing still" (Nwosu et al., 2024).

The third crisis dimension was sustainability reporting requirements introduced nationally in 2023 and reinforced through Banten provincial initiatives. While primarily directed at larger firms, sustainability mandates created market pressure as corporate customers—particularly those serving multinational supply chains—increasingly required environmental and labor practice certifications from MSME suppliers. Eleven of 18 participant firms reported customer requests for sustainability documentation, with food sector firms experiencing particularly acute pressure given international market requirements for halal certification combined with environmental claims.

These converging crises created survival urgency that dominated initial leader attention. Early crisis periods (2020-2021) were characterized by reactive crisis management: reducing costs through layoffs (11 firms), deferring maintenance and investments (16 firms), negotiating payment extensions with suppliers (15 firms), and seeking government assistance or informal loans (12 firms). Survival mode constrained attention for sustainability practices perceived as non-essential expenditures. Yet paradoxically, within 12-18 months, leaders in more resilient firms (those that stabilized operations and maintained 60-70% of pre-crisis revenue) began integrating sustainability-oriented practices as adaptive mechanisms.

Leadership Responses and Strategic Adaptation

Adaptive leadership emerged as central to firms' capacity to move beyond pure survival to strategic adaptation incorporating sustainability dimensions. Four leadership characteristics distinguished participants whose firms progressed to sustainability integration from those remaining in reactive crisis mode: (1) cognitive flexibility to reframe constraints as opportunity; (2) relational embeddedness in community networks enabling informal resource mobilization; (3) forward-looking orientation maintaining long-term vision despite immediate pressures; (4) deliberative learning from crisis experiences to modify leadership approaches.

Cognitive Reframing as Strategic Catalyst. Leaders in more resilient firms engaged in active reinterpretation of crisis meaning and implications. Rather than accepting pandemic/digital disruption as temporary shocks to be endured, they reframed crises as catalysts for business model innovation. M3, a food production MSME leader, described this explicitly: "When lockdowns started, we thought

it would be three months. After six months, we realized this was not temporary. We had to ask: if we couldn't use traditional sales channels, what new opportunities existed? That question led us to online platforms, direct-to-consumer delivery, and community relationships" (Díaz-Calderón et al., 2025). This cognitive shift—from "crisis as threat" to "crisis as opportunity for innovation"—enabled these leaders to experiment with new practices, including digital adoption and community-based supply chain reorganization, both of which generated sustainability co-benefits.

Relational Embeddedness and Network Activation. Leaders in firms that successfully adapted demonstrated deep embeddedness in community and business networks developed over years. During crisis, these relationships became critical resources. M9, a manufacturing MSME serving automotive supply chains, explained: "My father founded this business 30 years ago and built relationships with competitors, suppliers, other factory owners. During pandemic when supply chains broke, I could call them—we shared information, coordinated bulk purchases to reduce costs, supported each other. That mutual support is sustainability because we all survived together" (Fauzan & Syara, 2025). Network activation enabled informal resource mobilization: joint purchasing reducing costs, shared equipment access, information exchange about market changes, and collective advocacy to government. These practices, though not labeled "sustainability," functioned as economic sustainability through risk distribution and resource efficiency, while simultaneously generating social sustainability through relationship strengthening.

Forward-Looking Orientation Under Uncertainty. Adaptive leaders maintained long-term strategic vision despite immediate survival pressures. This was evident in continued investment (albeit reduced) in employee development, customer relationships, and technological capability despite cash flow constraints. M12, a service-sector MSME, reported: "During 2020-2021 we cut costs where we could but never cut training. Our team is our competitive advantage. We trained them in digital tools, customer service improvements, financial management. It cost money we didn't have but we believed that when market recovered, we'd have a better-equipped team." By 2023, M12's firm had grown 40% above pre-crisis levels, with technology-enabled service delivery providing competitive advantage (Bešić et al., 2026). This forward-looking investment in human capital represents adaptive leadership integrating economic and social sustainability dimensions.

Deliberative Learning and Leadership Adaptation. Leaders in adaptive firms engaged explicitly in learning from crisis experiences. Fourteen of 18 participants reported formal or informal reflection processes—monthly leadership team meetings, informal peer discussions, or individual reflection—analyzing crisis responses and identifying improvements. M5 (textile MSME leader) described implementing "crisis lessons documentation" where leadership team documented what worked, what failed, and lessons for future disruption. This deliberative learning translated into modified practices: diversified customer bases rather than concentrated client dependency, cash reserves rather than just-in-time financing, and supplier relationship investments rather than pure cost-minimization. These adaptations embodied sustainability dimensions (resilience through diversification, financial sustainability through reserves, stakeholder sustainability through partnership investing).

Sustainability Practices Under Crisis Constraints

The study identified that sustainability practices—intentionally pursued or emergently developed—functioned as adaptive mechanisms under crisis constraints rather than luxury investments. Three categories of sustainability practices emerged:

Economic Sustainability Through Operational Efficiency. Under cash flow pressure, leaders implemented efficiency improvements with sustainability benefits: waste reduction (10 firms documented reduced material waste through improved production planning), energy conservation (12 firms reported reduced electricity costs through equipment maintenance and process optimization), and supply chain efficiency (14 firms reorganized supply chains reducing transportation, storage, and obsolescence costs) (Pratama & Azzahra, 2026). M2 (food production MSME) described implementing inventory management system reducing unsold perishables from 28% to 8%, simultaneously reducing financial losses and environmental waste. These were initially motivated by cost pressure but recognized as "green practices" when government sustainability initiatives highlighted them.

Social Sustainability Through Stakeholder Engagement. Crisis experiences heightened leader awareness of stakeholder interdependencies. Firms maintaining employee relationships through crisis (even with reduced hours rather than layoffs) experienced faster recovery, with employee retention reducing recruitment and training costs while maintaining institutional knowledge. Nine firms implemented or strengthened formal grievance mechanisms, transparent communication, and employee voice structures—practices recognized as social sustainability markers (Sari et al., 2025). Community

engagement intensified: 11 firms documented increased community partnership activities (local sourcing, community employment preference, support for community initiatives) justified by leaders as both "supporting community that supports us" and "building social capital for future resilience."

Environmental Sustainability Through Resource Constraints. Crisis constraints paradoxically catalyzed environmental practices. With reduced operational scale (2020-2021), firms operated with minimal environmental footprints. As operations recovered, leaders consciously maintained efficiency: using renewable energy where feasible (5 firms), reducing packaging (8 firms), and implementing waste segregation (6 firms) (Sisca et al., 2025). M14 (textile MSME) implemented zero-waste dyeing process not primarily for environmental values but for cost reduction; waste material (dye effluent) was treated as "cost to be recovered" rather than "externality to be discarded," generating revenue through chemical recycling while reducing environmental release. This reframing aligned economic and environmental sustainability.

Governance Sustainability Through Formalization. Crisis exposed governance vulnerabilities: unclear decision authority, lack of documentation, informal financial practices. Adaptive leaders implemented formalizing practices: written operational procedures (12 firms), formal financial record-keeping (14 firms), regular management meetings with documented decisions (11 firms), and clearer roles/responsibilities (15 firms) (Juniansyah et al., 2025). These governance improvements generated sustainability through reduced decision errors, improved financial management, and reduced corruption risk—dimensions of governance sustainability relevant to institutional legitimacy and stakeholder trust.

Meaning of Sustainability in Crisis Context: Reframing from Compliance to Resilience Strategy

Critical insight emerged through analyzing how leaders *defined* and *justified* sustainability practices. In pre-crisis normalcy, sustainability was often understood as compliance requirement or corporate social responsibility—externally mandated practices disconnected from business strategy. Crisis reversed this framing: leaders redefined sustainability as *resilience mechanism*.

M8 (manufacturing MSME) articulated this explicitly: "Before pandemic, 'sustainability' was something government required or big companies did for reputation. It wasn't for us—we barely had cash for operations. During pandemic, I realized that practices we now call 'sustainable'—avoiding waste, keeping employees, managing cash carefully—those practices were what kept us alive. Sustainability is not luxury. It's resilience" (Abubakar, 2026).

This reframing reflects theoretical reconceptualization. Sustainability practices—whether environmental, social, or governance—function under crisis conditions as investments in resilience by: (1) reducing resource dependency through efficiency; (2) strengthening stakeholder relationships providing support during disruption; (3) maintaining organizational capability and legitimacy; (4) generating flexibility for adaptive response. The contingency theory lens explains this: sustainability shifts from universal good-practice to context-contingent adaptive strategy relevant specifically when resources are constrained and resilience is existential requirement.

Leaders also reported that sustainability reframing generated employee engagement benefits. M11 described implementing employee wellness program during crisis—maintaining mental health support and exercise facilities despite cost pressures—justifying it internally as "we need our team physically and mentally capable to navigate crisis." Employees, experiencing leader commitment to their wellbeing rather than pure cost-cutting, demonstrated higher retention and discretionary effort. This exemplifies how sustainability practices, motivated by resilience imperative, generated unexpected relational and motivational benefits.

Table 1: Themes of Leadership and Sustainability Practices in MSMEs During Crisis

| Theme | Description | Manifestations in Participant Firms | Link to Sustainability |
|-------------------------|---|---|---|
| Cognitive Reframing | Leaders reinterpret crisis as opportunity for innovation and business model renewal rather than pure threat | Digital adoption, online sales platforms, supply chain reorganization, product diversification | Economic sustainability through innovation; resilience through capability expansion |
| Relational Embeddedness | Leaders activate and strengthen community networks for resource sharing, information exchange, collective problem-solving | Joint purchasing, equipment sharing, mutual support among competing firms, community employment preferences | Social sustainability through relationship strengthening; economic sustainability through resource efficiency |

| Theme | Description | Manifestations in Participant Firms | Link to Sustainability |
|--------------------------|---|---|--|
| Forward-Looking Vision | Leaders maintain long-term strategic orientation despite immediate survival pressures; continued investment in capabilities | Employee development and training, customer relationship investment, technological capability building, cash reserve accumulation | Human capital sustainability; financial resilience through strategic reserves |
| Deliberative Learning | Leaders systematically reflect on crisis responses, document lessons, modify practices based on learning | Crisis documentation procedures, monthly reflection meetings, peer learning groups, adaptive strategy modification | Organizational sustainability through knowledge institutionalization; capability development |
| Operational Efficiency | Leaders implement cost-reduction practices generating sustainability co-benefits | Waste reduction, energy conservation, supply chain optimization, inventory management improvement | Environmental sustainability; economic efficiency; resource conservation |
| Stakeholder Engagement | Leaders strengthen communication, involvement, and relationship with employees, suppliers, communities | Employee voice mechanisms, transparent communication, community partnerships, local sourcing | Social sustainability; stakeholder trust; organizational legitimacy |
| Governance Formalization | Leaders implement clearer procedures, documentation, decision authority, and financial practices | Written procedures, formal records, documented decisions, clear roles | Governance sustainability; reduced corruption; organizational legitimacy |

Discussion: Theoretical Contributions and Integration with Literature

Reconceptualizing Sustainability-Resilience Integration. The study demonstrates that sustainability and resilience are not separate organizational pursuits but intimately connected through adaptive leadership. Prior literature has treated sustainability (environmental-social-governance compliance) and resilience (capacity to absorb shocks) as distinct constructs managed through separate institutional mechanisms. This research shows that under crisis conditions, sustainability *becomes* a resilience mechanism: efficiency practices reduce resource vulnerability; stakeholder engagement builds support networks; governance formalization improves decision quality and organizational legitimacy; and capability development enables adaptive response (Widowati & Damiyana, 2025). This integration extends contingency theory by demonstrating that organizational practices' functionality is context-dependent: practices labeled "sustainability" in resource-abundant environments function as "survival mechanisms" in resource-constrained crisis contexts.

Adaptive Leadership as Integrating Mechanism. The study identifies adaptive leadership—characterized by cognitive flexibility, relational embeddedness, forward-looking vision, and deliberative learning—as the mechanism enabling sustainability-resilience integration. This extends adaptive leadership theory beyond the crisis management literature (which emphasizes rapid decision-making and uncertainty navigation) to include capacity for strategic reframing that transforms resource constraints into innovation catalysts. Leaders who cognitively reframe crisis, activate relational resources, maintain long-term vision, and deliberately learn from experience create organizational conditions where sustainability practices emerge naturally as adaptive responses rather than as externally imposed requirements. This finding aligns with transformational leadership literature but emphasizes the particular cognitive and relational capabilities required in resource-constrained crisis contexts (Mei et al., 2024).

Context-Contingent Meaning of Sustainability. The research reveals that sustainability's meaning and justification shift within crisis contexts. Rather than abstract commitment to environmental stewardship or social responsibility, crisis-context sustainability becomes pragmatic resilience investment: "we reduce waste because waste costs money we don't have"; "we invest in employees because they're our competitive advantage"; "we formalize procedures because informal systems break under pressure." This finding resonates with practice-based sustainability literature but emphasizes how crisis reframes motivational calculus. Leaders justify sustainability not through ethical or compliance

arguments but through resilience logic understandable to cash-constrained organizations (Varis et al., 2025). This reframing may be more persuasive for MSME adoption than abstract sustainability appeals.

Network Activation as Sustainability Foundation. The study highlights relational embeddedness—leaders' integration into community and business networks—as foundational for sustainability implementation. Firms whose leaders possessed deep network relationships (often accumulated over 20-30 years of business operations) demonstrated greater capacity to mobilize shared resources, access informal financing, gather market information, and coordinate collective responses. These network-based practices generated social sustainability (relationship strengthening, community engagement) while enabling economic sustainability (risk distribution, resource efficiency). This finding extends social capital theory to sustainability contexts, demonstrating that sustainability implementation depends not only on internal organizational capability but on relational positioning within community ecosystems (Fauzan & Syara, 2025).

Comparison with Prior Research and Specification of Novelty. Existing MSME resilience research emphasizes digital transformation, financial access, and innovation as primary resilience drivers (Pandey, 2026). While this research confirms digital adoption's importance, it demonstrates that digital transformation alone—without leadership reframing, stakeholder engagement, and forward-looking vision—remains crisis response rather than strategic adaptation. Similarly, financial access research focuses on external funding mechanisms; this research shows informal resource mobilization through networks often exceeds formal credit in significance for resource-constrained MSMEs. Most importantly, prior research treats sustainability as separate from resilience; this study demonstrates that under crisis conditions, sustainability practices function as integral resilience mechanisms when leaders reframe them strategically.

The study's empirical contribution lies in providing detailed evidence from Banten MSMEs—a context combining acute economic significance with particular vulnerability to multiple converging crises. Banten's exposure to pandemic disruption, digital transformation pressure, and sustainability reporting mandates simultaneously creates natural experimental conditions (not available in single-crisis contexts) for examining how leaders navigate multiple disruption layers.

Limitations and Boundary Conditions. The study's scope extends to Banten MSMEs; generalizability to other Indonesian regions or countries depends on contextual similarity regarding crisis intensity, network structure, and sustainability pressure levels. The 18-firm sample, while adequate for in-depth qualitative insight, cannot claim statistical representativeness. The study examined firms that survived through 2024; firms that ceased operations are absent from sample, limiting understanding of threshold conditions where adaptive leadership proves insufficient. The research timeline (March-September 2024) captured mid-recovery period; longer-term outcomes remain uncertain. Additionally, the study cannot definitively establish causality (whether adaptive leadership caused sustainability adoption or whether sustainability-oriented practices required adaptive leadership); the qualitative design illuminates mechanisms more than isolating independent effects.

CONCLUSION

This study investigated how adaptive leadership enables integration of sustainability practices into crisis management strategies among MSMEs in Banten, Indonesia. The research demonstrates that contrary to assumptions that sustainability is luxury practice requiring resource abundance, under crisis conditions sustainability becomes pragmatic resilience mechanism when leaders possess four adaptive leadership dimensions: cognitive reframing (interpreting crisis as opportunity), relational embeddedness (activating community networks), forward-looking vision (maintaining strategic orientation despite immediate pressures), and deliberative learning (systematic reflection on crisis experiences).

The key theoretical contribution reframes sustainability-resilience relationship: sustainability is not independent from resilience but a dimension of resilience when resourced through adaptive leadership. Practices labeled "sustainability" (waste reduction, stakeholder engagement, governance formalization, capability development) function simultaneously as efficiency drivers, relationship strengtheners, and organizational legitimacy enhancers—all essential resilience components. This integration extends contingency theory by demonstrating that organizational practice functionality depends on crisis context: identical practices valued for "compliance" in stable environments become "survival mechanisms" in crisis environments.

Empirical contributions emerge through detailed evidence from Banten MSMEs experiencing multiple concurrent crises (pandemic, digital disruption, sustainability mandates). The research

demonstrates that crisis intensity, when combined with leadership adaptability, can catalyze sustainability adoption by reframing sustainability justification from abstract values to concrete resilience logic. Firms whose leaders possessed cognitive flexibility to reframe crises as innovation opportunities, relational embeddedness enabling informal resource mobilization, and deliberate learning practices demonstrated capacity to integrate sustainability practices while maintaining financial viability.

Methodological contribution lies in interpretive qualitative analysis capturing how leaders subjectively experience, interpret, and enact adaptive strategies. This approach reveals decision-making processes, emotional dimensions, and relational contexts unavailable through quantitative measurement, generating insights into mechanisms through which leadership influences organizational outcomes during crisis.

Practical Implications for MSMEs and Policymakers. For MSME leaders, the research suggests that sustainability need not be framed as external compliance burden but can be reframed as adaptive resilience strategy. Leaders facing resource constraints can mobilize sustainability through network activation, efficiency optimization, and stakeholder engagement—practices generating both survival benefits and sustainability outcomes. Deliberate reflection on crisis experiences creates organizational learning that strengthens future adaptive capacity.

For policymakers, the research indicates that MSME sustainability adoption depends not only on regulations and financial incentives but on supporting leadership development enabling adaptive reframing. Government programs should emphasize adaptive leadership capabilities (cognitive flexibility, relational network-building, forward-looking strategic planning, organizational learning systems) rather than assuming that sustainability mandates alone drive adoption. Additionally, policy should recognize and strengthen informal resource networks through which MSMEs mobilize support; formal financial systems alone inadequately serve MSME sustainability transitions.

Limitations and Future Research Directions. This study examined Banten MSMEs during 2020-2024 crisis period; findings may not extend to stable economic contexts or different geographic regions. The sample comprised surviving firms; research on failed firms would illuminate threshold conditions determining when adaptive leadership proves insufficient. Future research should investigate: (1) longitudinal patterns in sustainability adoption post-crisis (do crisis-catalyzed practices persist or revert to pre-crisis patterns?); (2) sectoral variations in sustainability-resilience integration (do manufacturing, service, and trade sectors demonstrate different patterns?); (3) gendered dimensions of adaptive leadership emerging in member checking but not fully explored here; (4) institutional support mechanisms most effective for enabling MSME leaders' adaptive capacity; (5) quantitative validation of qualitatively identified mechanisms in larger MSME samples.

This research contributes to both crisis management literature and sustainability literature by demonstrating their integration: organizational resilience under crisis conditions encompasses and requires sustainability practices when leaders possess adaptive capabilities to reframe constraints as opportunities, activate relational resources, maintain strategic vision, and deliberately learn from experience. Understanding these mechanisms is particularly vital for emerging economy MSMEs facing recurring crises and uncertain futures—contexts where resilience is not aspirational but existential requirement.

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