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Capacity Building and Business Development of Redchic Accessories through a Participatory Action Research-Based University Community Engagement Program

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ABSTRACT

Creative Micro, Small, and Medium Enterprises (MSMEs) often face operational and administrative constraints that impede their market survival. Redchic Accessories, a small business specializing in fashion accessories, experienced operational inefficiencies, irregular bookkeeping, and traditional marketing bottlenecks. This study aimed to evaluate the effectiveness of a university-led capacity-building program in improving business management, financial accountability, operational efficiency, and digital marketing of Redchic Accessories. Utilizing a Participatory Action Research (PAR) approach across sequential planning, action, and reflection cycles, the team engaged the business owner and 3 key employees over a 4-month intervention period. The framework focused on instituting standardized operating procedures (SOPs), deploying digital bookkeeping ledger spreadsheets, and optimizing online storefront architectures. Quantitative operational monitoring revealed that the intervention minimized production cycle delays from a baseline of 4 days down to 1.5 days, reduced raw material wastage by 28%, achieved a 100% monthly financial recording completion rate, and drove an 18.5% growth in marketplace traffic. In conclusion, the participatory intervention substantially improved managerial practices and established a stronger foundation for sustainable business development.

Keywords: business incubation, digital marketing, digital transformation, MSME development, operational management

INTRODUCTION

Financial Micro, Small, and Medium Enterprises (MSMEs) serve as the backbones of emerging economies, contributing significantly to grassroots employment, regional income generation, and localized economic resilience. In creative industries, particularly fashion and artisanal jewelry, small enterprises often exhibit immense design innovation and product adaptability. However, their long-term growth and competitiveness are consistently limited by severe internal governance deficiencies. Most creative MSMEs are established out of organic passion or subsistence entrepreneurship, which frequently leads to a complete absence of structured corporate governance, unstandardized operational flows, and fragile financial management frameworks.

Redchic Accessories is a specialized creative MSME engaged in a comprehensive supply-chain ecosystem that covers raw material procurement, handcrafted custom accessory manufacturing, and direct-to-consumer commercial retail. Despite possessing a

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loyal regional customer base and robust product diversity, Redchic Accessories operated under a highly informal management structure. The business model lacked defined performance metrics, leaving its strategic vision disconnected from daily operations. In terms of operational execution, the lack of standardized inventory tracking for delicate raw materials led to frequent production delays and material waste. Furthermore, the financial infrastructure of the enterprise relied entirely on single-entry cash recordings blended with personal household finances, making it mathematically impossible to calculate accurate Cost of Goods Sold (COGS) or evaluate net profitability margins. Without systematic interventions across these business pillars, small craft enterprises face strategic stagnation and operational failure.

Previous interventions on local capacity building in West Sumatra have aggressively targeted digital optimization for traditional cooperatives, structural packaging improvements, and disability-led MSMEs (Putri et al., 2020; Sari et al., 2019; Sari et al., 2024). Concurrently, university-led community outreach has explored target-specific incubation setups, marketing digitalization, and business model canvas architectures aimed at expanding the economic independence of marginalized beneficiary groups and home-based creative industries within the region (Sari & Albar, 2026). Furthermore, in the highly competitive context of product commercialization, executing rigorous empirical validation through strategic positioning and systematic market testing is critical to ensuring the viability of innovative offerings before a full-scale retail launch (Albar et al., 2020).

To address these multi-dimensional gaps, this university-community engagement program was executed with three clear research objectives: (1) to co-diagnose localized structural operational vulnerabilities within the target artisanal ecosystem, (2) to design and deploy simplified, adaptive administrative and digital marketing tools tailored for micro-retail operations, and (3) to evaluate the quantitative operational shifts resulting from participatory capacity building. The expected outcomes included the complete formalization of written workplace guidelines, the full decoupling of personal-corporate cash flows, and the creation of highly responsive digital storefront funnels. This intervention contributes directly to the community engagement literature by providing a scalable, empirical framework demonstrating how action-research methodologies can effectively bridge academic strategic management theories with the informal realities of grassroots creative entrepreneurship in emerging regional economies.

METHOD

The Location and Approach

This community service initiative adopted a Participatory Action Research (PAR) framework tailored to collaborative institutional capacity building. Rather than positioning the MSME owners as passive beneficiaries of academic consultation, the PAR model actively engaged the business owner and all 20 production staff members as co-researchers and primary agents of organizational change, balancing localized collaborative inquiry with systematic action (Chevalier & Buckles, 2019). The program was physically executed at the primary production facility and retail storefront of Redchic Accessories, running through an intensive 4-month intervention timeline in 2024. Implementation Steps and Iterative PAR Cycles

To validate the PAR design and move beyond a single-session consulting intervention, the methodology was operationalized through three iterative planning-action-reflection cycles. Qualitative and operational data generated throughout these interactive phases were continuously documented, coded, and verified using sequential framework analysis to ensure empirical reliability (Miles et al., 2014):

- Cycle 1: Diagnostic and Planning Phase (Month 1): Facilitators conducted 3 intensive structured interviews and direct on-site workspace observations. The baseline data collection mapped a complete lack of formal workflows and severe inventory confusion. The joint reflection session with the owner led to the collaborative planning of localized corporate restructuring.
- Cycle 2: Collaborative Action and Operational Standardization (Months 2–3): The team implemented 4 structured capacity-building workshops (2 hours per session) focusing on business models, workplace organization, accounting, and digital funnels. Mentoring frequency was established on a weekly basis (every Saturday afternoon) to guide the owner and employees in co-drafting Standard Operating Procedures (SOPs) and deploying a digital bookkeeping framework.
- Cycle 3: Evaluation, Reflection, and Re-planning (Month 4): Evaluation data were systematically gathered using a combination of focus group discussions (FGDs), detailed field notes, financial ledger logs, and pre-versus-post operational timeline tracking. A final reflection round was organized to assess administrative adoption rates, identify cultural resistance, and formulate independent sustainability roadmaps for the enterprise.

Variables and Assessment Criteria

The performance indicators and measured operational variables consisted of: (1) Operational Efficiency, measured via assembly cycle duration (days) and raw material waste rates (%), as these indicators reflect production productivity and resource utilization (Heizer et al., 2020; Slack et al., 2022); (2) Financial Accountability, assessed through bookkeeping completion frequency (weekly percentage) and Cost of Goods Sold (COGS) calibration accuracy, which indicate the quality of financial recordkeeping and cost management practices among small businesses (Horngren et al., 2012; Romney & Steinbart, 2021); and (3) Digital Market Footprint, evaluated using monthly e-commerce storefront traffic counts and social media audience click-through metrics, which are commonly used to assess firms' online visibility, customer engagement, and digital marketing effectiveness (Chaffey & Ellis-Chadwick, 2022; Tuten, 2021).

RESULTS AND DISCUSSION

The Business Strategy Realignment and Canvas Structuring

Initial organizational diagnostics revealed that Redchic Accessories lacked a formalized strategic plan, leading to an inconsistent value proposition and unstable customer segment targets. The mentoring team facilitated a series of interactive Business Model Canvas (BMC) workshops with the enterprise management. Through this process, the business model was restructured to clearly differentiate between their three primary operational roles: bulk raw material supply, high-end handcrafted customization, and affordable retail distribution. By explicitly defining separate target consumer personas and distinct value propositions for each sector, the enterprise successfully realigned its operational resources and established clear quarterly key performance indicators (KPIs) (David & David, 2016).

Operational Optimization and Standard Operating Procedures (SOPs)

In the production sector, the absence of codified assembly guidelines and material tracking methods had caused erratic manufacturing timelines and high defect rates. The university team conducted a workspace layout optimization audit at the manufacturing facility. Standard Operating Procedures (SOPs) were formally written and implemented for the production cycle, beginning with incoming raw material inspection, precise assembly methods, and final quality control (QC) checklists. Additionally, industrial facility management principles were deployed to organize delicate accessory components (beads, wires, clasps).

This structural reorganization minimized tool retrieval times, reduced raw material wastage by 28% (measured by tracking component scrap counts over a 30-day post-intervention observation window against the previous quarterly average raw material loss), and guaranteed a highly predictable production output. Furthermore, the operational assembly processing time dropped from a baseline delay of 4 days to an average of 1.5 days. The rapid adoption of functional workflows and standardized layouts by the artisanal staff expands the practical application of strategic roadmap enforcement and industry alignment frameworks observed in vocational development sectors (Albar & Amsal, 2026). This operational shift from passive, uncoordinated manufacturing to an agile, metric-driven process validates the multi-aspect business management interventions implemented to optimize retail and production architectures in national positioning frameworks (Albar & Amsal, 2024).

Financial Accountability and Cost of Goods Sold (COGS) Calibration

The financial management of Redchic Accessories was previously a major vulnerability due to the complete lack of structural bookkeeping. The business owner could not determine exact profitability because material expenditures, shipping costs, and labor inputs were mixed arbitrarily. To eliminate this deficiency, a digital double-entry bookkeeping ledger was introduced via shared spreadsheets, which achieved a 100% monthly financial recording completion rate over the monitoring period. By accounting for hidden overhead values (such as electricity, packaging, and indirect tool depreciation), the enterprise discovered that several high-demand accessories had been underpriced. Separate corporate banking accounts and digital ledger applications were introduced, allowing the business owner to execute autonomous profit-and-loss tracking, evaluate gross margins, and secure real-time financial transparency.

This financial restructuring mirrors the structural accounting, internal sales controls, and asset depreciation overhauls successfully introduced to stabilize public and village-owned enterprises (BUMDes) in neighboring districts (Komalasari et al., 2023b; Oktavia et al., 2023). Zudem, enforcing a strict separation between corporate cash flows and household expenses confirms the core tenets of business incubation programs, which identify early financial transparency as a fundamental variable for transitioning informal micro-enterprises into viable, bankable market entities (Fithri et al., 2025).

Digital Marketing Transformation and Brand Architecture

Prior to the intervention, the enterprise's marketing strategy was entirely reactive and lacked consistent branding. The mentoring team executed a complete digital marketing re-engineering program. This involved upgrading the brand's visual identity through high-resolution catalog photography, creating cohesive color palettes, and optimizing commercial profiles on major marketplace and social media platforms. A structured social media content calendar was implemented to maintain consistent audience engagement. This intervention resulted in a measurable 18.5% growth in marketplace storefront traffic and a significant expansion in online customer inquiries.

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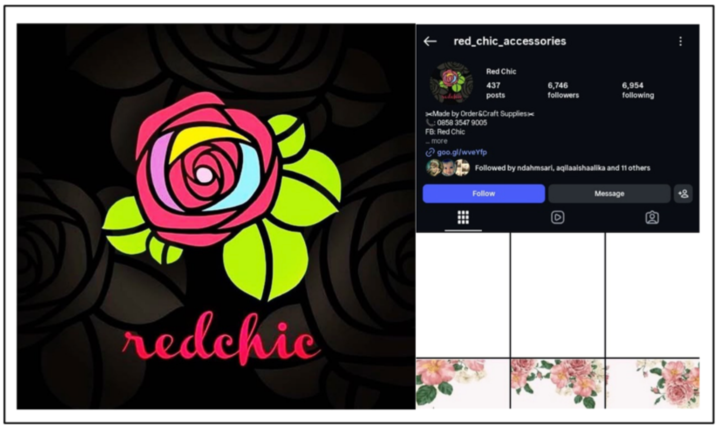

Figure 1. Visual identity redesign and social media optimization

The success of transitioning Redchic Accessories toward intentional, digital-first promotional funnels align with recent digital transformation studies in West Sumatran micro-businesses, which demonstrate that digital adoption serves as an essential buffer against regional market stagnation (Albar et al., 2021). To systematically mitigate the risk of customer switching behavior, creative MSMEs must integrate data science and precise marketing perspectives to retain their digital consumer base (Amsal et al., 2021). Additionally, the utilization of highly optimized visual palettes and digital catalog framing to capture audience interest is strongly supported by recent neuromarketing insights, which confirm that structured visual designs directly modulate human attention in highly competitive advertising spaces (Kotler & Keller, 2016; Wang et al., 2025). The complete comparative summary of the developmental parameters before and after the action research intervention is displayed in Table 1.

Table 1. Matrix of management interventions, baseline conditions, and post-intervention metrics

No	Management Pillar	Baseline Condition (Pre-Intervention)	Core Intervention Activities	Post-Intervention Condition & Performance Indicators
1	Business Strategy	No formalized strategic plan; disconnected value proposition and unstable target segments.	Business Model Canvas workshops, quarterly KPI definitions, and customer segment mapping.	Formalized BMC document; 100% clarity in separate target customer personas achieved; strategic objectives aligned.
2	Operations & Sourcing	Unstandardized assembly flows; high scrap rates; average production delay of 4 days.	Facility layout auditing, 5S workspace reorganization, and assembly SOP codification.	Written production and QC SOPs institutionalized; raw material waste reduced by 28%; production delays cut to 1.5 days.
3	Financial Systems	Mixed personal-household funds; single-entry cash logs; unknown COGS and profit margins.	COGS calculation training, independent banking setup, and digital ledger deployment.	Accurate product pricing models deployed; automated double-entry ledger achieves 100% monthly completion rate.
4	Digital Marketing	Reactive word-of-mouth promotion; unoptimized social media profiles; zero commercial traffic tracking.	Visual identity redesign, catalog photography optimization, and multi-channel marketplace setup.	Structured promotional content calendar active; 18.5% growth in marketplace traffic; data-driven click tracking active.

CONCLUSION

The comprehensive community service program conducted at Redchic Accessories demonstrates that a structured, participatory approach can systematically dismantle the operational vulnerabilities that typically plague informal micro-enterprises. Rather than merely delivering a short-term consulting intervention, the iterative PAR cycles substantially improved managerial practices and established a stronger foundation for sustainable business development. The broader institutional implications of this study suggest that university-community engagement programs must move away from single-session workshops and instead adopt long-term, co-creative action research models. By embedding specialized academic tools, such as the Business Model Canvas, 5S facility management, and digital double-entry bookkeeping, into the daily habits of grassroots entrepreneurs, higher education institutions can act as vital regional business incubators (Bringle et al., 2012; Fithri et al., 2025). Ultimately, this model serves as a practical blueprint for regional community empowerment, proving that bridging the gap between academic theory and grassroots operational realities is the key to driving sustainable digital and economic transformation in emerging creative industries.

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