

Entrepreneurship

## Empowering Microenterprises through Accessible No-Code Digital Tools

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*Accessible no-code digital platforms enable microenterprises to grow across different business stages.*

Microenterprises, typically employing fewer than ten people and characterized by very low capital investment (approximately USD 120,000) and annual turnover below USD 600,000, account for a substantial share of economic activity in emerging economies<sup>1</sup>. These businesses span a diverse range of sectors, including neighbourhood food enterprises, small-scale craft producers, community-based processors, residential maintenance services, and learning-oriented micro-initiatives<sup>2</sup>. In ASEAN countries and across many parts of sub-Saharan Africa, these small businesses play a critical role in supporting household incomes, fostering community resilience, and contributing to inclusive economic development<sup>3</sup>. Their contributions are also closely linked to several Sustainable Development Goals, particularly those related to creating employment, innovation, and poverty alleviation<sup>4</sup>.

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Despite their economic and social importance, microenterprises face persistent constraints<sup>3</sup>. Limited financial resources, inadequate regional support, and small team sizes mean that business owners and employees must often manage multiple functions including customer relations, new product development, inventory tracking, marketing, and basic financial tasks simultaneously<sup>5</sup>. Due to limited access to formal training or affordable professional support, many microenterprises manage operations using paper records, informal communication tools, and ad-hoc tracking methods<sup>6</sup>. For example, they may use handwritten notes to log sales, send customer updates via personal messaging apps, or estimate stock levels without systematic monitoring. As a result, they often struggle to optimize operations, maintain service consistency, or adapt to changing customer expectations which collectively intensify cost pressures and reduce overall efficiency.

Here, digital tools can offer a potential means to strengthen microenterprise resilience and productivity. Over the past decades, the expansion of internet and growing digital devices penetration have laid the groundwork for adoption of digitalization<sup>6-7</sup>. Smartphone usage in Africa is expected to reach 88 percent by 2030<sup>7</sup>, and in India, public initiatives promoting digital payments and online services have improved general familiarity with technology<sup>8</sup>. Although these infrastructure offers an opportunity for microenterprises to improve digital adoption, but real-world adoption remains limited. While many microentrepreneurs own digital devices, they often do not use them for core business activities. Multiple reports and survey show that a large share of microenterprise owners report low perceived relevance of digital tools, while others cite affordability and limited digital skills as major obstacles<sup>9-10</sup>.

Against such context, accessible no-code digital tools may offer a more practical and inclusive response to these challenges. These platforms are visual, user-oriented digital development environments that allow individuals to build websites, automate business workflows, or create basic digital content more effortlessly without writing code<sup>11-12</sup>. Crucially, they provide at least some core features through open-access or freemium models, allowing microenterprises to explore and use basic digital capabilities without upfront investment<sup>11</sup>. Common features include drag-and-drop interfaces, reusable templates, and guided editors that do not require prior technical experience<sup>12</sup>.

Unlike traditional software tools, which may require hiring developers or subscribing to enterprise services, no-code platforms enable small businesses to design and test digital solutions independently<sup>10,12</sup>. For example, a cloud kitchen might use a drag-and-drop platform to create a lightweight order-tracking and kitchen coordination system that reduces dependency on manual coordination, minimizes order errors, and lowers operational costs associated with staffing and order reconciliation form accessible via mobile. This helps streamline customer interactions, reduce errors, and save time - without needing a custom-built system or technical support. While the growing interest in digital inclusion has led to valuable insights into the challenges faced by microenterprises, there remains a scope for understanding how accessible no-code tool intersect to support this segment, especially when examined across different phases of business development<sup>13</sup>.

Thus, this frontier aims to address that gap by examining *how microenterprises in emerging economies adopt and benefit from accessible no-code digital platforms*. It explores how these digital tools are integrated across the different phases of business evolution, from setting up and organizing operations to pursuing growth. The goal is to generate insights into how small businesses, even with limited resources, can meaningfully participate in digital transformation processes using such accessible low-barrier tools.

## How Insights Were Obtained

We conducted a qualitative study with 15 microenterprises drawn from four sectors: Food & Processing (e.g., bakeries, food stalls), Services (e.g., salons, house cleaners), Tech & Design (e.g., freelance graphic designers), and Manufacturing & Infrastructure (e.g., small workshops, resellers). Each business had fewer than 10 employees, limited investment, return as mentioned earlier and minimal digital infrastructure.

Data collection involved semi-structured interviews, participatory workshops, and a structured entrepreneurial seminar conducted by a research institute primarily focused on entrepreneurship training and development. In addition, we interacted with ecosystem actors such as digital service providers. We observed usage patterns, documented pain points, and explored how accessible no-code digital tools were integrated into daily

business functions. This approach helped reveal not only the functional application of these tools but also the perceptions, challenges, and expectations surrounding their adoption.

## Findings

Our analysis of these microenterprises revealed how accessible no-code digital tools supported them across three key business phases: Establishment, Operationalization, and Scaling. Each phase involved practical steps in which simple visual, drag-and-drop no-code platforms enabled small business owners to create digital outputs on their own, without technical training or expensive software.

### Phase 1: Establishment – Formalize the Business and Reduce Uncertainty

During the early stage, microenterprises focus on legal clarity, testing their ideas, and identifying funding support. Accessible no-code tools supported three main practices:

#### 1.1 Understanding Legal and Regulatory Requirements

Accessible no-code tools supported microenterprises in understanding registration requirements by helping them build interactive checklists and sector-specific document templates. A local reselling business compared options like sole proprietorship and partnership using visual logic flows. A packaging service used drag-and-drop interfaces to create a compliance calendar linked to notification reminders. These features made it easier to stay organized and reduced dependence on costly legal advice, helping owners meet basic regulatory requirements with more confidence.

#### 1.2 Testing Business Ideas

Entrepreneurs used no-code website builders to create landing pages, showcasing early versions of their products or services. A home-based bakery published a simple online menu and tracked visits to estimate interest. A local spirulina tablet provider used visual

pricing calculators to test cost scenarios. These tools allowed for quick, low-risk experimentation with different offerings. By simulating business operations digitally, microenterprises gained early customer feedback and assessed financial viability before committing large resources.

### **1.3 Exploring Funding Opportunities**

To explore support opportunities, microenterprises built searchable document repositories and eligibility checklists using table-based no-code apps. A small business producing handcrafted fragrance products tracked application deadlines for government and private grants, and compiled editable templates to streamline and reuse in future applications. A small market research firm mapped its characteristics against investor criteria using custom filters. These tools enabled structured planning and reduced the complexity of dealing with fragmented funding systems, making it easier for resource-constrained owners to access financial or institutional support.

## **Phase 2: Operationalization – Stabilize Operations and Deliver Consistent Value**

Once microenterprises launched, their focus shifted to improving daily coordination, interacting with customers, and monitoring money flows. Accessible no-code tools made this possible through:

### **2.1 Workflow Digitization and Task Coordination**

Microenterprises used visual automation tools to digitize routines like order tracking, staff scheduling, and job checklists. A cloud kitchen created a color-coded board to assign prep tasks and monitor delays. A mobile mechanic service used form-driven entries to log equipment use and delivery timelines. These apps helped reduce reliance on memory or paper logs, making daily coordination smoother. By organizing tasks visually, firms improved reliability and freed up time for higher-value work.

### **2.2 Managing Customer Relationships**

Customer interactions were managed using form-based CRMs and message triggers. A small educational startup recorded student inquiries and class schedules through a simple contact form. A local cleaning service built a loyalty tracker showing repeat bookings and preferences. Businesses set up automatic acknowledgment messages and appointment confirmations through visual logic flows. These features helped maintain relationships with minimal manual follow-up and made service feel more professional even without a dedicated support team.

### **2.3 Tracking Income and Expenses**

No-code dashboards gave microenterprises real-time visibility into daily sales, costs, and pending payments. A neighborhood bakery created charts showing ingredient expenses and profit margins. A boutique design firm automated invoice creation with tax breakdowns and client logs. A rural processing unit monitored cash inflow from different buyers using table views. These tools reduced the risk of errors and helped business owners take control of finances, even without accounting expertise or external help.

## **Phase 3: Scaling – Reaching New Markets and Increasing Efficiency**

In the final phase, businesses aimed to grow without major investments. No-code tools supported this through replication, expansion, data use, and coordination with others.

### **3.1 Standardizing and Reusing Workflows**

Microenterprises used accessible no-code tools to replicate workflows across new locations or service lines. For example, a tailoring unit created order intake forms and visual checklists to ensure uniform service at multiple kiosks. A construction contractor built reusable task templates for material tracking and site visits. Training new workers became easier with embedded guides and video walkthroughs in the interface. These tools allowed businesses to maintain consistency and scale operations without hiring IT consultants or building custom systems.

### **3.2 Reaching New Customers**

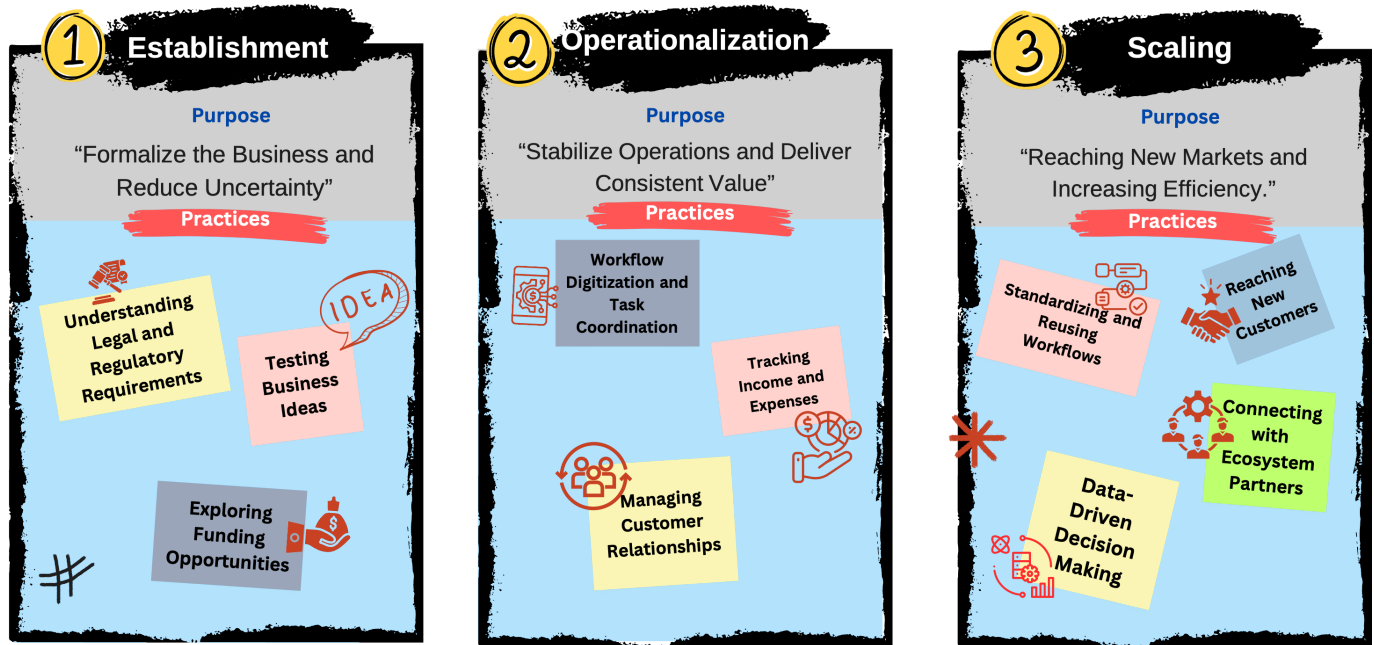
To reach new customer segments, businesses built multi-page product showcases using no-code website builders and integrated booking or order features through visual plug-ins. A home-based skincare seller expanded sales by connecting a local payment processor and delivery system through form-based integrations. A graphic designer tested new client markets with multilingual versions of their service page. These tools enabled businesses to extend their reach, test demand in new regions, and establish an online identity affordably and efficiently.

### **3.3 Data-Driven Decision Making**

Accessible no-code dashboards helped microenterprises turn raw data into actionable insights. A snack producer tracked sales volume and time-based trends to plan production runs. A florist monitored order types and peak delivery windows to optimize staffing. A small tutoring startup used automated charts to understand class popularity and dropout rates. These tools made it easy to visualize performance patterns without programming knowledge, enabling informed business decisions and adjustments that improved efficiency, service, and revenue.

### **3.4 Connecting with Ecosystem Partners**

Microenterprises used accessible no-code digital tools to improve coordination with suppliers, partners, and retail outlets. For example, a cloud kitchen used a shared inventory tracker with automated alerts to manage restocking. A printing business collaborated with freelance designers through a visual task dashboard, streamlining file sharing and deadlines. Some firms distributed no-code feedback forms to retail partners, tracking demand and service issues. These simple, adaptable tools helped small businesses strengthen ecosystem connections without requiring complex software or technical expertise.



**Figure 1:** Accessible no-code digital tools-based practices across various phases of microenterprises.

## Implications for practitioners and support systems

The findings suggest that accessible no-code digital tools have the potential to reshape how microenterprises engage with digital technologies in low-resource environments. These tools enable small business owners to independently build, iterate, and refine digital solutions in ways that are both context-sensitive and cost-efficient. For platform designers, this underscores the need for minimalistic, mobile-first interfaces, multilingual support, and embedded assistance tailored to everyday business workflows. Furthermore, platform designers should prioritize reducing learning time while enhancing user engagement, ensuring that micro-entrepreneurs perceive the effort required to learn and use the platform as minimal. Development practitioners and ecosystem enablers should move beyond generalized digital literacy programs and instead offer targeted training that aligns with specific no-code applications. Integrating such tools into entrepreneurship development schemes, microfinance-linked capacity building, or community business support initiatives can help bridge the gap between informal work practices and structured digital engagement. Moreover, as these platforms mature, further innovation

should focus on interoperability with government portals, market access platforms, and sector-specific regulatory systems, thereby embedding microenterprises more effectively into the broader digital economy.

## Conclusion

This study highlights that accessible no-code digital tools offer a viable entry and operational point for microenterprises seeking to participate in digital transformation without high technical or financial thresholds. These tools help address key pain points in formalization, daily operations, and controlled scaling, especially in contexts marked by fragmented infrastructure and limited professional support. While not a comprehensive solution to all systemic challenges, no-code tools provide a flexible and inclusive pathway for microenterprises to digitize incrementally and meaningfully. Their ability to reduce technical dependency, support modular growth, and align with local entrepreneurial practices makes them a critical component of digital inclusion strategies. As governments, industry stakeholders, and support organizations aim to promote equitable economic development, fostering the adoption and responsible evolution of such platforms will be essential.

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