CHAPTER 27

ENTREPRENEURSHIP, INNOVATION, AND ENTERPRISE DEVELOPMENT

Sixbert SANGWA

African Leadership University | Kigali, Rwanda | ssangwa@alueducation.com

PARENT BOOK

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ABSTRACT

Entrepreneurship is often celebrated as enterprise creation, yet incorporation, venture funding and rapid growth neither demonstrate genuine innovation nor establish economic or social value. This chapter develops a critical and operationally detailed account of entrepreneurship, innovation and enterprise development as processes of judgment and organized experimentation under uncertainty, institutional constraints and unequal access to resources. It compares Schumpeterian innovation, Kirznerian alertness, Knightian uncertainty, opportunity discovery and creation, effectuation, bricolage and entrepreneurial-ecosystem scholarship. Twelve approved domains connect opportunity diagnosis, business-model architecture, ethical customer experimentation, feasibility, financing, founding-team governance, productivity, Rwanda's enterprise environment, sustainable entrepreneurship and digital frontiers. A transparent targeted synthesis of foundational scholarship, peer-reviewed experiments and official secondary data draws particularly on Rwanda's 2024 Integrated Business Enterprise Survey and MSME FinMap. A wholly hypothetical Rwandan cold-chain venture illustrates market sizing, an evidence register, unit economics, break-even, cash runway, scenario comparisons and decision gates without representing constructed figures as observed outcomes. Original decision instruments include an opportunity-to-enterprise validation model, a business-model canvas, a customer-discovery protocol and an integrated feasibility dossier. International comparisons with entrepreneurship-support evidence from Nigeria, India and Kenya expose the limits of transferring results across institutional settings. The chapter argues that responsible enterprise development requires more than founder ambition: it depends on credible demand, feasible delivery, disciplined learning, adequate liquidity, accountable relationships and demonstrable value for affected stakeholders.

Keywords: entrepreneurship; entrepreneurial opportunity; innovation; effectuation; business models; lean experimentation; venture finance; microenterprise productivity; entrepreneurial ecosystems; Rwanda.

LEARNING OUTCOMES AND CONCEPTUAL ROADMAP

On completing this chapter, readers should be able to (LO1) distinguish entrepreneurship, self-employment, firm formation, innovation, and enterprise development in relation to their social and economic functions; (LO2) critically compare theories of entrepreneurial action and identify their assumptions, explanatory limits and contextual implications; (LO3) evaluate an opportunity with explicit customer, market, feasibility and uncertainty evidence; (LO4) construct and test a business model, customer-discovery protocol and defensible experimental decision rule; (LO5) calculate venture contribution, break-even output, financing needs, cash runway and scenario-sensitive viability; (LO6) assess financing, governance, staffing, scaling and ecosystem choices for ventures of different sizes and degrees of formality; (LO7) interpret verified Rwandan enterprise data alongside international comparisons without unjustified causal inference; and (LO8) defend an ethically responsible investment or noninvestment recommendation with research limitations and a monitoring plan.

The argument advances from the nature of entrepreneurial organization (27.0–27.1) and rival theoretical explanations (27.2) through opportunity assessment, business-model design, learning and feasibility (27.3–27.6), to finance, teams, scale and institutional environments (27.7–27.10). The treatment then examines social value and technological frontiers (27.11–27.12). Sections 27.13–27.17 supply a detailed Rwanda-based

dossier, comparative synthesis, glossary, learning resources and references. Product strategy is treated in Chapter 15, financial investment valuation in Chapter 24, detailed information systems and AI governance in Chapters 28–29, international trade in Chapter 30, and sustainability systems in Chapter 31. The present chapter concerns the entrepreneurial creation and development of enterprise capability that must coordinate those functions.

27.0 INTRODUCTION: THE GAP BETWEEN AN IDEA AND AN ENTERPRISE

A Rwandan entrepreneur observes that fresh horticultural produce loses value between rural aggregation points and urban customers. The founder proposes a digital ordering platform linked to refrigerated transport, presents a projected addressable market, and receives interest from a potential funder. A processor asks about temperature assurance, a farmer cooperative asks how quickly it will be paid, a driver asks who will absorb fuel-price changes, and a wholesaler wants proof that delivery within a promised window is dependable. An attractive problem, a downloadable application and a plausible market forecast have not yet established an investable venture. This illustrative case supplies the recurring decision problem examined throughout the chapter: which observations would justify committing scarce resources, and what must remain uncertain until ordinary commercial transactions begin?

Entrepreneurship is a process through which individuals and groups recognize, construct, evaluate or pursue possibilities for new economic and social activity while organizing resources and relationships under uncertainty. For innovation measurement, a business innovation is a significantly new or improved product or business process introduced to the market or brought into use by the enterprise; an idea, patent or prototype alone does not meet the implementation criterion (OECD/Eurostat, 2018). Enterprise development concerns the construction and improvement of the organizational capacity needed for sustained transactions and responsible performance. Entrepreneurship can occur within existing firms, public organizations and cooperatives; innovation may be incremental rather than radical; and a newly registered microbusiness may reproduce an established service without introducing a novel technology (Shane & Venkataraman, 2000; Schumpeter, 1934).

A fundamental conceptual error is to regard every new business as a high-growth startup. A small shop established to earn a livelihood and a research-intensive enterprise seeking international expansion confront different opportunity structures, sources of risk, governance needs and feasible financing. Both can be economically important, and neither deserves an automatic assumption of success. The question is not whether entrepreneurs are universally heroic or markets inherently self-correcting; it is when entrepreneurial judgment can transform uncertain propositions into credible economic and stakeholder outcomes, and when institutional constraints prevent this transformation. This chapter develops a selective, inspectable synthesis of prior scholarship and official documentary evidence, not an original empirical evaluation or a formal systematic review. Sources were selected for foundational theoretical importance, replicable peer-reviewed findings, Rwanda-specific relevance and current institutional applicability; the synthesis has no exhaustive database-search or study-quality meta-analysis claim.

The methodological position adopted here is critical and comparative rather than positivist in an unqualified sense. Entrepreneurial intentions, subjective interpretations and institutional meanings require interpretive inquiry, whereas conversion rates, costs and payment delays permit limited numerical tests when their populations and measurement rules are defined. These are complementary kinds of evidence, not interchangeable ones. The documentary synthesis privileges seminal conceptual works for theoretical genealogy, peer-reviewed designs with observable comparison mechanisms for empirical inference, and official statistical and institutional publications for Rwanda-specific claims. It does not claim an exhaustive search, formal risk-of-bias scoring, pooled effect-size estimation or original fieldwork. Studies are compared in relation to their intervention, unit of analysis, context, outcome, identification strategy and limitations; hypothetical company parameters remain separated from observed public statistics. This procedure makes

the chain of reasoning inspectable, although selection of studies and the absence of a registered review protocol limit claims about completeness.

27.1 ENTREPRENEURSHIP AND ENTERPRISE CREATION

27.1.1 The entrepreneurial function and its boundaries

Older accounts of economic activity often assign entrepreneurs the roles of coordinating production, assuming uncertainty and making judgments about resource allocation. Knight (1921) distinguished insurable or probabilistically modelled risk from forms of uncertainty for which relevant probabilities cannot credibly be specified. The distinction remains useful when a startup assigns precise success probabilities to an innovation for which neither the market boundary nor buyer behaviour has been established. An entrepreneur cannot eliminate such uncertainty through a spreadsheet; the practical response is to limit exposure, discover information, acquire commitments and preserve options to revise decisions. Importantly, the Knightian account should not be misread to imply that the business founder alone bears all uncertainty: workers, lenders, customers, suppliers and households often absorb substantial portions of downside exposure.

Creation may involve an independently owned firm, a partnership, a cooperative, a franchise, an employee-owned enterprise, a social venture or a new activity within an incumbent organization. Entrepreneurship therefore differs from legal incorporation and from self-employment, although these categories overlap. Self-employment describes a labour-market and income relationship; incorporation determines legal status; entrepreneurship concerns opportunity-oriented action and the organization of value creation. A founder's capabilities include identifying a problem, assembling complementary resources, negotiating commitments, learning from failed assumptions, and converting irregular customer interactions into a repeatable operating system. In practice the entrepreneur must shift from discovery to disciplined organizational management without losing the capacity to adapt.

It is equally important to distinguish entrepreneurial agency from unconstrained individual choice. Ventures are often embedded in households that supply unpaid care, savings and labour; in communities that establish trust and access; and in institutions that determine who may acquire property, borrow, contract, operate or contest unequal treatment. Welter (2011) shows why spatial, historical, social and institutional contexts matter to the explanation of entrepreneurial behaviour. A founder who lacks collateral or secure premises may have to adopt a lower-capital model regardless of the technical quality of an alternative idea. Conversely, politically privileged access can make an inferior model privately profitable. An analytically serious account therefore examines both entrepreneurial decisions and the rules that structure the feasible choice set.

27.1.2 Necessity, opportunity and heterogeneous objectives

The necessity–opportunity distinction is useful for understanding different motives, but it is not a binary measure of entrepreneurial quality. A household may launch a trading activity because salaried employment is unavailable and later discover an underserved customer segment. Conversely, an entrepreneur pursuing a perceived market gap may still be motivated by income insecurity. Cross-country survey indicators also depend on question wording, sampling frames and the availability of alternative employment. The Global Entrepreneurship Monitor (2026) provides a comparative research instrument, yet its participating economies and definitions do not automatically authorize country comparisons outside its sampling design. Enterprise policy therefore needs separate objectives for livelihood stability, productivity improvement, transition to formality, local service access, innovation and job-intensive growth.

27.1.3 Birth, survival and development

The business lifecycle is better understood as a set of conditional transitions than as a fixed ladder from idea to startup to multinational corporation. Venture emergence requires organizing exchanges; early survival requires customers, operations and liquidity; consolidation requires reliable records, delegated responsibilities and controls; expansion requires coordination capacity and market access. Some founders deliberately retain a stable microenterprise because additional scale offers inadequate returns or threatens household commitments. Others cease activities rationally when evidence invalidates the proposition. Counting registrations, incubator admissions or funding announcements measures activity, not necessarily economic additionality, resilience or wellbeing.

Business survival is itself a multidimensional outcome. A firm may remain legally registered but have ceased trading; another may close voluntarily after recovering capital and transferring capabilities to a more attractive occupation. The researcher must specify whether survival means continued registration, active sales, positive value added or retention of paid employment. Similarly, exit is not an unambiguous measure of failed entrepreneurial judgment: abandonment of an invalid proposition may protect scarce resources and household welfare. Longitudinal evidence should distinguish transitions within an enterprise from changes in its legal identifier and from seasonal pauses in activity.

27.2 ENTREPRENEURIAL THEORIES AND DEBATES

27.2.1 Innovation, market processes and uncertainty

Schumpeter (1934) conceptualized entrepreneurs as agents of new combinations: new products, methods, markets, sources of supply or organizational forms that disturb established arrangements. This approach explains why entrepreneurship can transform industry structure rather than merely allocate resources within it. Kirzner's *Competition and Entrepreneurship* (1973) instead gives prominence to entrepreneurial alertness and discovery of previously unexploited possibilities within competitive adjustment. The contrast is not absolute: entrepreneurs may correct coordination failures while introducing new combinations, and innovation can be imitated. Neither theory proves that every entrant improves social welfare. Market power, unpriced pollution, misinformation and exclusion can permit a venture to capture profit while imposing wider costs (Cohen & Winn, 2007).

27.2.2 Discovery versus creation

Shane and Venkataraman (2000) proposed that entrepreneurship examines how, by whom and with what consequences opportunities are discovered and exploited. Alvarez and Barney (2007) sharpened a deeper ontological question: do opportunities exist as objectively identifiable conditions prior to entrepreneurial action, or are they partly constituted through experimental action and stakeholder interaction? Discovery arguments are useful where price differences, unmet needs or technological possibilities can be identified independently. Creation arguments illuminate situations where customer preferences, institutions or product categories are not predetermined. In practice the researcher must avoid circular definitions: calling successful initiatives 'discovered opportunities' and unsuccessful ones 'non-opportunities' makes the theory difficult to refute. A defensible account states which observable conditions preceded the intervention and which changed because of it.

27.2.3 Causation, effectuation and affordable loss

Sarasvathy (2001) contrasts causal planning, which starts with a specified goal and selects the means to achieve it, with effectuation, which starts from means already under the entrepreneur's control and builds commitments with stakeholders. Effectual heuristics include affordable loss, partnerships, contingencies and control rather than reliance on prediction. These are not competing moral identities. Forecast-based procurement is often indispensable after substantial contracts exist, while effectual engagement can be

sensible when the product and market remain unsettled. Fisher (2012) demonstrated that effectuation, causation and bricolage can be distinguished behaviourally but also coexist within a venture. An intellectually defensible account treats these as conditional logics whose usefulness depends on the decision being faced, not as universal recipes.

27.2.4 Bricolage and institutional embeddedness

Baker and Nelson (2005) showed how resource-constrained firms sometimes create unexpected services by recombining materials, knowledge and relationships already at hand. Bricolage may facilitate experimentation at low upfront cost, but informality is not intrinsically efficient: improvisation cannot excuse unsafe equipment, undocumented obligations, exploitative labour or unverified product claims. Institutional theory adds the insight that business opportunity depends on enforceable contracts, legitimate organizational forms, trust, social networks, infrastructure and the distribution of political and economic power. If financing is rationed by collateral or geographic access, talent and effort alone are insufficient explanations of venture survival.

The analytical boundary is especially important for ventures built around essential services. Repurposing a booking system may be innocuous, whereas repurposing unsuitable refrigeration, electrical wiring or financial records can generate risks that customers cannot observe. Entrepreneurial ingenuity should therefore be assessed against the technical standards and contractual duties relevant to the activity. A resource-recombination account becomes meaningful when it identifies the prior resources, the new productive use, the counterfactual purchase or process, the costs avoided and the risks introduced. Without these distinctions, bricolage can become an admiring label for unmeasured improvisation.

27.2.5 Ecosystems and an unresolved causal problem

Ecosystem perspectives identify interactions among entrepreneurs, finance, skills, customers, culture, infrastructure, knowledge institutions and public rules. Stam (2015) cautions that ecosystem rhetoric can outpace causal evidence and recommends distinguishing enabling conditions, entrepreneurial activity and subsequent value creation. The number of accelerators does not establish that accelerators caused innovation; prosperous cities may attract incubators because opportunity already exists. Credible evaluation therefore needs a comparison group, timing, participant selection and outcomes beyond pitch competitions. An integrative position follows: no single theory explains all entrepreneurial settings. Discovery is most informative when relevant markets exist, creation when categories emerge through action, effectuation when commitments can shape uncertainty, and institutional theory when feasibility is limited by the wider environment.

The theories also differ epistemologically. A discovery claim invites evidence that the relevant unmet need or arbitrage possibility was identifiable before the founder intervened; a creation claim requires a credible account of how the venture altered preferences, categories or exchange relationships. An effectuation claim can be studied through the sequence of actual commitments, not merely through founders describing themselves as adaptable after success. These mechanisms can coexist in different phases of the same venture, but their coexistence should not be used to immunize every theory against disconfirmation. The operational question is which prediction, interpretation or decision rule each perspective improves and what evidence could reasonably make an analyst revise that assessment. An ecosystem label is not an explanation until its institutions, selection processes and outcomes have been specified.

Table 27.1. Distinctive theoretical propositions and empirical tests

Tradition	Mechanism or claim	Appropriate test or diagnostic	Principal limitation
Knightian uncertainty	Judgment under non-insurable uncertainty	Identify which probabilities are evidentially defensible	Cannot itself specify successful decision rules
Schumpeterian innovation	New combinations change competitive structure	Document novelty, adoption and market displacement	Innovation can harm as well as benefit stakeholders
Kirznerian discovery	Alertness reveals coordination or price gaps	Observe previously unmet exchange and subsequent correction	Understates purposeful market creation
Discovery/creation	Opportunity may precede or arise through action	Separate pre-existing conditions from entrepreneurial interventions	Retrospective narratives can become circular
Effectuation and bricolage	Affordable loss, stakeholder commitments and recombination	Trace actual decisions, constraints and resource reconfiguration	Context-dependent; may underweight scalable formal systems
Ecosystems	Complementary institutions condition productive entrepreneurship	Compare access, selection, entry, growth and welfare outcomes	Reverse causality and measurement problems

Note. Author's comparative synthesis from Knight (1921), Schumpeter (1934), Kirzner (1973), Sarasvathy (2001), Baker and Nelson (2005), Alvarez and Barney (2007), Fisher (2012) and Stam (2015). The rows are analytical distinctions, not empirically validated mutually exclusive categories.

27.3 IDENTIFYING AND EVALUATING OPPORTUNITIES

27.3.1 Problem first, solution second

A promising venture starts with a precise account of whose problem is consequential, how that problem is currently handled, the costs imposed by existing alternatives and who can authorize a purchase. Farmers may regard spoilage as a major loss while buyers are unwilling to pay the proposed delivery fee. A technically superior offer may fail because the person benefiting cannot control the procurement budget. Opportunity analysis therefore distinguishes user, payer, buyer, gatekeeper, regulator and affected noncustomer. The appropriate comparison is not an imaginary world with no solution, but actual substitutes, including doing nothing, informal arrangements, in-house production and competitor offerings.

27.3.2 Desirability, feasibility, viability and responsibility

Desirability concerns a customer segment's preference and demonstrated willingness to use or purchase an offer. Feasibility concerns whether the venture can provide it at required standards and scale. Viability concerns the net economic resources generated or consumed under plausible conditions. Responsibility adds legal authorization, distributive fairness, human safety and material externalities. These dimensions interact: a low-cost delivery proposal may appear financially viable only because driver rest time or cold-storage quality controls have been omitted. A venture should not declare validation merely because one dimension has positive early evidence.

The four criteria are necessary screening dimensions, not a weighted score in which a high value on one dimension automatically compensates for failure on another. A product with strong willingness to pay but material unresolved safety hazards should not progress merely because its expected margin is unusually large. Conversely, a service that would improve welfare but cannot recover its costs calls for a legitimate subsidy or redesign rather than an assertion that social purpose guarantees financial sustainability. Explicit thresholds and noncompensatory safeguards protect the venture assessment from an attractive but logically incoherent overall rating.

27.3.3 Market boundaries and transparent sizing

Total addressable market (TAM) is the broadest relevant spending or unit demand under specified boundaries; serviceable available market (SAM) is the portion reachable under channel, geographic, technical and regulatory constraints; serviceable obtainable market (SOM) is a plausible attainable share within a dated period and operating capacity. A bottom-up estimate is often more defensible for smaller enterprises than multiplying a national population by an arbitrary adoption percentage. For instance, 650 reasonably reachable organizational buyers each purchasing 12 deliveries per month imply a *hypothetical* SAM of 7,800 deliveries per month. A proposed operating capacity of 4,800 deliveries per month imposes an additional bound on obtainable volume. Neither a list of 650 possible buyers nor an optimistic forecast establishes 3,600 actual paid orders; customer-conversion evidence is separately necessary.

27.3.4 Information hierarchy and opportunity discipline

Administrative data can identify business concentration, but seldom validate demand for a novel service. Interviews establish perceptions, not reliable purchase probabilities; letters of interest may be nonbinding; paid trials are stronger but may be distorted by discounts or founder relationships; recurring at-price contracts are stronger evidence of demand, although not necessarily of profitable retention. Ethical opportunity analysis also needs negative cases. Sampling only digitally connected urban users will systematically exclude potential rural customers. Selection criteria, segment definitions, sampling limitations and contradictory findings should be entered into an evidence register before investment approval.

An opportunity appraisal should therefore identify the unit of demand, the denominator of the market estimate and the observation period. “Twenty interested buyers” is uninterpretable without knowing whether twenty were approached, two hundred were approached, or the sample was selected from existing clients. For paid-pilot outcomes, an analyst should report the proportion together with the recruitment frame, uncertainty interval and reasons for nonparticipation. Simple binomial intervals are only approximate where contacts are clustered, responses are dependent or the frame is nonrandom. Price sensitivity needs separate evidence because stated willingness to pay may diverge from actual purchasing when liquidity, transport distance or approval procedures are considered. Good market research is designed to find reasons not to invest as well as reasons to proceed.

27.4 BUSINESS MODEL DESIGN AND TESTING

A business model describes the configuration through which a venture creates value for identifiable beneficiaries, delivers that value through activities and partners, and captures sufficient resources to reproduce the arrangement. Teece (2010) interprets this as a hypothesis about customer needs, delivery and profit capture; Zott et al. (2011) emphasize system-level activity design. Consequently, an attractive value proposition is insufficient without credible payment arrangements, a capacity to fulfil promises and defensible governance of dependencies. The business model canvas of Osterwalder and Pigneur (2010) offers a helpful discipline for surfacing nine interrelated components, but filling its boxes is not evidence that the model works.

Table 27.2. Illustrative nine-block business model canvas for a Rwandan temperature-controlled delivery venture

Canvas block	Decision proposition requiring evidence
Customer segments	Registered produce wholesalers, institutional food buyers and cooperatives with repeat demand
Value propositions	Traceable temperature-controlled transport and predictable delivery windows
Channels	Cooperative referrals, direct business development and digitally supported order scheduling
Customer relationships	Account service, documented quality feedback, dispute resolution and renewal reviews

Canvas block	Decision proposition requiring evidence
Revenue streams	Per-delivery business fees with disclosed minimum-volume and payment terms
Key activities	Dispatch, temperature assurance, routing, invoicing, maintenance and customer service
Key resources	Vehicles or leased capacity, trained staff, temperature monitoring, licenses and working capital
Key partnerships	Producers, vehicle operators, storage facilities, insurers and quality providers
Cost structure	Fuel, vehicle usage, packing/handling, wages, compliance, maintenance, systems and financing

Note. Original hypothetical application of the nine components described by Osterwalder and Pigneur (2010); no named real business or validated customer commitment is represented.

The canvas is most valuable when translated into falsifiable relationships. If institutional buyers promise repeat contracts but cash collection averages sixty days, financing must bridge wages and fuel costs for the actual collection cycle. If a technology provider controls the sole booking system, the venture's claimed customer relationship may be subordinated to a supplier's platform terms. If a cooperative requires immediate farmer payment, a low price to wholesalers may be achieved only by exporting liquidity pressure upstream. The model must identify who creates value, who receives it, who is paid, and who carries unrecovered risk. Strategy in Chapter 6 determines the venture's defensible position; product and price design in Chapter 15 addresses the offer itself. This chapter asks whether the entire emerging activity system can function as an enterprise.

Business models can employ transactions, subscriptions, memberships, commissions, licensing, usage-based fees, cross-subsidies or mixed revenue. Multi-sided platforms additionally require attention to participation on several sides, matching quality, pricing incidence, data rights and platform power. A recurring fee is not inherently preferable to a transactional model; it may induce unwanted commitment and conceal nonusage. A responsible venture tests affordability, cancellation rights, payment timing and service failure remedies alongside profitability.

The distinction between a business model and an economic ecosystem is especially visible in a platform enterprise. Two-sided participation may create cross-group effects, but it may also produce a costly coordination problem in which neither suppliers nor customers join until the other side is already sufficiently active. The platform must establish the unit of exchange, the quality of matching, the pricing burden across sides, the incidence of payment failure and the contractual allocation of liability. A superficially attractive gross merchandise value can coexist with negative net revenue after discounts, fraud, refunds and fulfillment costs. The test of the model is not whether a digital marketplace exists but whether it achieves sustainable, governable exchange under realistic retention and trust conditions (Teece, 2010; Zott et al., 2011).

27.5 LEAN EXPERIMENTATION AND VALIDATION

Entrepreneurial experimentation is valuable because it can reveal decision-relevant information before substantial irrecoverable investments are made. Kerr et al. (2014) explain entrepreneurship as experimentation under highly skewed and uncertain outcomes, while Camuffo et al. (2020) experimentally examined scientific hypothesis testing among 116 Italian startups. A later large-scale replication involving 759 firms found evidence consistent with improved idea termination and more discriminating pivot decisions, although performance effects and mechanisms remain context-sensitive (Camuffo et al., 2024). These findings support disciplined inquiry, not an assertion that every minimum viable product or pivot is effective.

27.5.1 An experiment is not a demonstration

A minimum viable offer should isolate a consequential uncertainty using the least ethically and technically adequate intervention. For a refrigerated delivery service, a manual booking process and hired certified transport may test willingness to pay before a proprietary application or fleet purchase. However, a 'minimum' test cannot waive temperature integrity, food safety, customer privacy or employment protections. A descriptive trial with friends differs from a comparison that randomly varies a price or service feature, and neither automatically estimates long-run retention.

A defensible test preregisters, at least internally, the target population, sampling approach, proposition, success threshold, measurement window and stop rule. Suppose the primary proposition is that 30% or more of genuinely eligible contacted buyers will undertake a paid pilot at the advertised rate. The recruitment frame, duplicates, nonresponses and existing relationship with the founder must be documented. If 12 of 60 approached buyers make a paid booking, the observed conversion is 20%; it does not support a claim that the 30% hurdle was met. Selection bias, seasonality, clustering and a small sample remain material limitations; a confidence interval around 20% would be wide. An entrepreneur may decide to run a better-designed pilot rather than force a favourable interpretation.

Uncertainty should be made explicit in the decision interpretation. In the constructed example of twelve bookings from sixty eligible contacts, the point estimate is 20%. A two-sided 95% Wilson interval, under an independent Bernoulli approximation, is approximately 11.9% to 31.8%. The interval is not a posterior probability that demand exceeds 30%, and it cannot correct a biased recruitment frame. The predeclared 30% descriptive hurdle has not been achieved, while the data remain statistically imprecise enough that stronger population-level conclusions would be unwarranted. Termination, redesign and further sampling may each be reasonable, depending on affordable loss and the expected value of additional evidence. This distinction protects the analysis against both premature optimism and a false declaration of permanent market failure.

Table 27.3. Customer-discovery and validation protocol

Stage	Required evidence and ethical safeguard	Decision implication
Define claim	Segment, problem, current substitute, monetary consequence	Exclude vague 'everyone is a customer' claims
Recruit transparently	Frame, eligibility, consent, inclusion, refusals	Diagnose selection and coverage error
Observe behaviour	Current purchase records where authorized, actual workflow	Separate expressed preferences from behaviour
Offer real exchange	Quoted price, payment terms, material service conditions	Test willingness to commit without misleading claims
Record disconfirmation	Cancellations, complaints, nonbuyers, rival alternatives	Preserve negative evidence and alternative explanations
Apply prior rule	Pre-specified minimum demand, margin and safety thresholds	Continue, change, pause or terminate with documented reasoning

Note. Author's original instrument informed by Kerr et al. (2014) and Camuffo et al. (2020, 2024). Researchers must separately comply with applicable consent, data protection and sector requirements.

The ethics of experimentation are substantive. Participants must not be induced through false scarcity, fabricated testimonials, opaque tracking or undisclosed health and safety risks. Customer data should be minimal, purpose-limited and access-controlled. Research with minors or vulnerable populations requires more than commercial consent. For a university or grant-funded investigation, applicable institutional research ethics procedures may also be required. A scientifically appealing test can be commercially or morally unacceptable if its risks are shifted to people who did not consent.

27.6 BUSINESS PLANNING AND FEASIBILITY

A business plan is a reasoned, revisable account of how an enterprise intends to satisfy real demand within specific constraints. It is not a document whose elaborate formatting compensates for missing evidence. Its primary analytical value is to connect market assumptions with operating capacity, cash flows, resource requirements, organizational responsibilities and contingencies. A plan may be prepared for internal discipline, a bank, grant evaluator, partner or potential investor, but these audiences have different information needs. Bank lenders typically emphasize repayment capacity and enforceable claims; equity investors consider upside, future funding, governance and exit prospects; cooperative members may emphasize affordable service and equitable benefit. Planning is useful when it makes disagreements and missing information explicit rather than hiding them in a single growth projection.

Market feasibility establishes relevant segments, substitutes, purchase authority, accessibility and evidence of repeatable paid demand. It should not mistake an official count of enterprises for paying customers. **Technical feasibility** tests whether equipment, people, power, software, inputs and quality procedures can meet specifications. **Operational feasibility** considers throughput, routing, seasonal variation, supplier continuity, workforce availability and recovery from failure. **Legal and regulatory feasibility** identifies registration, tax, sector permissions, contracts, environmental and labour obligations as applicable, without assuming that a general incorporation certificate authorizes every business activity. **Financial feasibility** integrates unit contribution, upfront investment, working capital, funding terms, downside scenarios and the owner's minimum livelihood requirements. Each dimension has a different failure mode; passing a sales forecast while lacking a feasible cold-storage standard is not a viable result.

A plan should also expose its *dependency structure*. If the venture requires a cooperative to aggregate sufficient produce, a carrier to maintain prescribed temperature, and a buyer to pay within thirty days, a failure at any one dependency can invalidate the promised service. For each dependency, managers should record the owner of the assumption, supporting evidence, criticality, alternative arrangements and a decision date. Redundant contingency arrangements cost money, but a single-point failure may cost more. The feasible balance depends on contractual penalties, likelihood and magnitude of disruption, and the potential consequences for customers and workers.

27.6.1 Financial decision logic

Let q be monthly delivered units, p net revenue per unit, v variable cost per unit and F monthly operating fixed costs. Under a single-product, constant-price and constant-variable-cost approximation, contribution per unit is $c = p - v$; operating result before interest, tax, depreciation and amortization (EBITDA in a simplified illustrative model) is $q(p - v) - F$; and the operating break-even quantity is $F/(p - v)$ when p exceeds v. This approximation assumes saleable output equals paid output, no unrecognized returns, no additional step-fixed capacity investments and no change in collections. It becomes misleading where transport routes have strongly nonlinear costs, working capital expands with q, or pricing and service mix vary materially. In these cases, a segmented or activity-based forecast is necessary, and a positive monthly contribution does not establish a positive investment net present value (Chapter 24).

The completed plan should contain at least three explicit scenarios, with the probability status of each made clear. A deterministic downside case is not a statistical confidence interval and should not be assigned an invented probability. An enterprise needs decision gates: what evidence permits a pilot, a capital purchase, a new hire or geographic expansion; what adverse results require redesign; and who has authority to stop the initiative. Because entrepreneurs can be personally exposed to debt, an economically attractive aggregate project may remain unacceptable if its worst plausible cash requirement jeopardizes a family's essential needs.

Business-planning credibility can also be judged by its treatment of irreversibility. A leased vehicle and a fixed-term service contract preserve more managerial options than purchased equipment and multi-year

debt, but the leased solution may have higher unit cost or less reliable capacity. The analyst should compare the price of flexibility with the expected cost of premature commitment and with any safety or service-quality differences. In the absence of defensible probabilities, a decision can be tested against break-even boundaries and extreme but feasible adverse cases rather than forced into an apparently precise probability-weighted forecast. Scenario narratives must also be internally consistent: lower demand may reduce route density and increase unit costs, while late collections may occur precisely when major buyers face financial distress. A model that varies these drivers independently can materially understate downside exposure.

27.7 ENTREPRENEURIAL FINANCING

Finance supplies time and risk-bearing capacity, not proof of demand. Bootstrapping, retained receipts, supplier credit, customer prepayments, savings, cooperative capital, bank loans, microfinance, equity investors, grants and regulated crowdfunding differ in ownership consequences, repayment obligations, information requirements and the extent to which the entrepreneur can preserve strategic control. A useful financing decision begins with the use of funds and its timing. Short-cycle inventory that reliably generates cash may justify working-capital credit; experimental product discovery with highly uncertain revenue may not support scheduled debt repayments. Asset finance can match the useful life of vehicles or equipment, but currency mismatch, variable interest and collateral enforcement can create risks that a headline interest rate obscures.

27.7.1 Bootstrapping and the discipline of commitments

Financing through small experiments, shared facilities, leased equipment and customer deposits can reduce irreversible commitments. Yet bootstrapping is not costless: founder unpaid labour, delayed supplier payments, family funds and precarious working conditions can conceal the true economic cost. The appropriate measure is not merely how little external capital was raised, but whether the resource configuration supports a viable and lawful service without imposing unacceptable hidden costs. Supplier finance is particularly dangerous where a founder's commercial advantage depends on repeatedly delaying vulnerable producers' payment.

A credible estimate should impute the market value of essential founder work when examining economic sustainability. Cash-flow survival and full economic profitability are different tests: founders may knowingly defer salaries during discovery, but long-run success cannot be inferred from accounts that permanently assign their labour a cost of zero. In a family-financed venture, the analyst must also assess whether the financial losses are diversifiable and whether the household has been informed about the possibility of losing collateral or essential savings. The principle of affordable loss is substantive only when those exposures are disclosed and genuinely tolerable.

27.7.2 Debt, collateral and credit rationing

Lenders face information asymmetries, limited ability to monitor borrower actions and enforceability constraints. Requiring verified sales, collateral or financial records may reflect legitimate prudential concerns even while systematically excluding capable entrants without inherited assets. The entrepreneur should therefore compare financing sources with an all-in cost of funds that includes fees, required deposits, security costs, penalties, exchange exposure and administrative burdens. In Rwanda, the MSME FinMap 2024 found that 40% of sampled MSMEs had accessed credit during the preceding twelve months, while 60% had not; these indicators describe the sample and reference period, not a causal estimate of unmet profitable loan demand (Access to Finance Rwanda [AFR], 2025). The same report places constraints alongside access, including cost, premises, markets and connectivity.

27.7.3 Equity and investor governance

External equity can absorb losses without mandatory interest or principal payments, but entails dilution, governance rights, future financing pressures and possible preference terms that alter distributions. Valuation offers require a defensible distinction between headline investment and post-money ownership. For example, an illustrative RWF 40 million investment at a RWF 160 million post-money valuation corresponds to 25% ownership immediately after issuance, assuming an uncomplicated ordinary-share transaction. Convertible notes and preference shares may produce materially different economics. Founder protection demands review of voting rights, information rights, liquidation preferences, anti-dilution terms, founder vesting and reserved decisions. A venture should not exchange enduring control rights for capital that cannot finance its real operating plan.

27.7.4 Grant and concessional finance

Subsidies can address social benefits that private buyers do not pay for or information spillovers from experimentation, but the presence of a grant competition may redirect businesses toward funder criteria rather than customer need. McKenzie's (2017) randomized study of a Nigerian business-plan competition found that grant awards increased entry, survival and employment, including the likelihood of reaching ten workers. The setting, award size, applicant selection and implementation matter: a one-time grant to screened applicants is not direct evidence that grants have the same effects on Rwanda's typical livelihood enterprises. Conversely, the randomized microfinance evaluation reported by Banerjee et al. (2015) found selective business effects without broad improvements in all household welfare measures. The policy inference is neither 'finance does not work' nor 'finance creates entrepreneurship'; financing effects are heterogeneous and contingent on constraints, recipients and outcomes.

27.7.5 A funding-fit decision

For each instrument, specify its purpose, duration, committed amount, cash servicing, collateral, control implications, nonfinancial support and failure consequences. Funding should be released in tranches against independently observable progress wherever the governance arrangement permits. Investor and lender disclosures must distinguish actual orders from expressions of interest, earned revenue from invoices and forecast profit from verified financial performance. Ethical capital raising requires fair representation of downside exposure to retail investors and family supporters who may be unable to diversify risk.

Crowdfunding requires the same distinction between financial form and promotional appearance. Donation-based, reward-based, debt and equity models create different obligations, and a public solicitation is not inherently exempt from securities, consumer-protection, advertising, payment or data rules. A venture should determine jurisdiction and platform authorization, inspect custody of funds, specify refund and non-delivery protections, and avoid treating campaign pledges as received unrestricted cash. Guarantees likewise require scrutiny: they may transfer a portion of lender loss but do not eliminate borrower repayment duties or create demand. The appropriate policy measure is additional viable investment that would not otherwise occur, adjusted for defaults, subsidy costs and displacement.

27.8 VENTURE OPERATIONS AND TEAM FORMATION

Enterprise development begins before formal specialization, but the founding team's early arrangements influence subsequent legitimacy and execution. Co-founders often contribute unequal combinations of capital, labour, knowledge, contacts and risk-bearing. An equitable agreement must clarify intellectual-property ownership, equity vesting, decision rights, remuneration, departure rules, deadlocks and conflict resolution. Good personal relations cannot substitute for recorded governance where an enterprise becomes valuable or experiences distress. This is particularly important in family and community ventures, where reciprocal obligations are real but may create ambiguity about what belongs to the enterprise and what belongs to the household.

27.8.1 Operational routines are entrepreneurial capabilities

A startup must reliably quote, contract, procure, fulfil, invoice, collect, record complaints and reconcile cash. These processes should be as simple as the scale permits, yet adequate to establish traceability. A founder who manages every transaction may initially minimize cash expenditure but becomes a bottleneck and fraud-control weakness as orders grow. Segregating authorisation, custody and reconciliation is ideal; when staffing cannot support complete separation, compensating controls such as independent bank review, dual approval of major transfers, sequential invoice numbering and documented exception review are necessary. Chapter 26 develops specialist assurance requirements; here the lesson is that the venture's operational credibility conditions survival.

27.8.2 Founding teams and early hiring

Technical and commercial capabilities are rarely identical. A product founder may misunderstand working capital; a salesperson may promise service conditions that operations cannot deliver; an investor may underestimate licensing and food-safety requirements. Staffing decisions should be derived from the work that must be done, not prestige titles. Early contracts require role clarity, lawful remuneration, safety, fair supervision and realistic workload. Informal arrangements can provide flexibility but may transfer substantial risk to workers. If a route is viable only when drivers routinely work excessive hours, the venture's apparent margin is an accounting artefact rather than responsible efficiency.

An effective founder dashboard includes confirmed paid orders, contribution after variable delivery costs, overdue receivables, service failures, return rates, safety incidents, cash runway and a qualitative log of customer objections. The entrepreneur should review signals together. Rising orders with worsening collections can reduce liquidity; rapidly increasing users who are attracted only by temporary subsidies can obscure the cost of retention. Small organizations should resist mimicking the entire governance architecture of listed companies, but they still require documented decision authority, credible records and accountable remedies.

Founding governance should become progressively formal without becoming procedurally burdensome. At the smallest scale, a monthly owner review and independently reconciled bank statement may offer more protection than an elaborate manual that nobody follows. Before admitting outside capital, the enterprise should document its equity register, beneficial ownership, founder vesting, conflicts of interest, delegated spending limits, privacy obligations and escalation arrangements. As staff are recruited, mechanisms for voice and grievance become material rather than optional. The governance test is whether a reasonable outsider can reconstruct who authorized a consequential decision, what evidence was available, whose interests were affected and how an error could be remedied.

27.9 SME PRODUCTIVITY AND SCALING

Growth is neither synonymous with higher productivity nor necessarily preferable to a stable, profitable enterprise. Output, value added, revenue, employment, unit costs and labour productivity can move in different directions. A larger sales volume may reduce gross margins, increase capital requirements and amplify quality failures. Productive development requires better combinations of technology, skills, management, market access and resources, measured relative to the chosen objective and constraints. In an entrepreneurial context, scaling should mean a defensible increase in value delivered and organizational capacity without proportionately unmanageable increases in cost, risk or stakeholder harm.

Empirical management research challenges the view that weak performance can always be solved by injecting capital. Bloom et al. (2013) randomly assigned management consultancy to Indian textile plants and reported substantial productivity gains through improvements in quality, efficiency and inventory management. The firms were relatively large industrial producers, however, not one-worker Rwandan retailers, and the intervention was costly and intensive. Drexler et al. (2014), studying microentrepreneurs in

the Dominican Republic, found that simplified financial rules improved practices and selected outcomes compared with more complex standard accounting instruction. These findings jointly imply that managerial systems should be matched to enterprise absorptive capacity rather than transferred mechanically.

27.9.1 Scaling constraints and managerial diseconomies

A venture may be limited by founder attention, inventory replenishment, service density, customer acquisition costs, quality assurance, compliance capability or working capital rather than by product demand alone. The next bottleneck changes as the enterprise grows. Capacity expansion may require step-fixed investment, introducing discontinuities into unit economics. For a delivery venture with capacity for 4,800 shipments monthly, a target of 5,000 cannot be represented as a marginal addition of 200 units if a second vehicle, licensed storage facility or supervisor is required. A robust growth plan identifies capacity thresholds and the investment and governance consequences of crossing them.

27.9.2 Growth beyond the entrepreneur

At a small scale, the founder may coordinate through memory and direct observation. As specialization grows, reliable work requires operational standards, delegated authority, management information, training, internal audit and customer remedy processes. Information technology may support control, but without valid data definitions it can accelerate errors. A prudent scaling sequence establishes repeatable economics in one segment, verifies operational reliability, documents the true cost of customer acquisition and retention, secures liquidity for predictable delays, and only then increases geographic or product complexity. Where network effects are claimed, the entrepreneur must show why each additional user actually improves value for others rather than simply increasing marketing expense.

A further distinction concerns exploration and exploitation. Exploitation refines existing routines, quality and throughput, whereas exploration tests alternative markets, product architectures and combinations of capabilities. March (1991) argued that organizational learning can overproduce short-run exploitation because its benefits are more immediate and observable, potentially sacrificing renewal. A very young enterprise may face the inverse problem, pursuing continual novelty while neglecting repeatable collection and delivery. Penrose (1995) locates an internal limit to expansion in the managerial services available from accumulated knowledge and experience. Together these arguments suggest that scaling is constrained not only by capital or customer numbers but by the rate at which reliable coordination, delegation and learning can be developed.

27.9.3 Equity, informality and uneven returns

Venture support often targets high-growth firms, but microenterprises provide essential livelihoods and local services. The average effect of training or grants should not conceal that interventions may favour already advantaged founders. Cho and Honorati's (2014) meta-regression of developing-country entrepreneurship programmes reported stronger effects on skills and practices than on immediate earnings or firm expansion, with considerable programme heterogeneity. In Sri Lanka, experimental capital transfers revealed heterogeneous returns, including gender differences that require attention to household allocation and sector constraints rather than assumptions about female ability (de Mel et al., 2009). Effective SME policy therefore needs distributional evaluation and accessible programmes for different groups, not just aggregate job counts.

27.10 ENTREPRENEURSHIP ECOSYSTEMS IN RWANDA AND AFRICA

27.10.1 The enterprise structure that policy must actually serve

Rwanda's National Institute of Statistics reports an estimated 278,060 business enterprises in 2024, with at least 87% classified as informal under the Integrated Business Enterprise Survey's methodology (National Institute of Statistics of Rwanda [NISR], 2026). The survey's formal-sector definition refers to RRA

registration together with regular accounting records; therefore survey formality should not be equated mechanically with registration in every other dataset. In the separate 2023 Establishment Census, establishments and enterprises are distinct statistical units. The two sources cannot simply be subtracted to calculate annual new-firm formation. National data also indicate that 62.6% of manufacturing enterprises reported underutilized capacity, underscoring that demand and inputs may constrain productivity even when installed equipment exists (NISR, 2026).

The MSME FinMap 2024, based on 2,116 sampled MSMEs, estimates that 91.5% of the enterprises in its classification were micro, 7.2% small and 1.3% medium. It reports financial inclusion among MSMEs of approximately 83% and much lower credit use than headline inclusion would suggest; about 60% reported no borrowing in the previous year (AFR, 2025). These are MSME survey estimates, not measures of all adult financial access, and they must not be combined with household FinScope estimates as though they share a denominator. The gap between access to a financial instrument and credit suitable for an enterprise's project is analytically essential. A mobile-money account may facilitate payments but does not by itself supply patient investment capital, insurance or business capability.

This heterogeneity is essential to targeting enterprise support. A simple policy evaluation cannot treat a subsistence trader, a manufacturer with idle capacity and an export-oriented professional-services venture as though they face one identical constraint. The World Bank (2024) identifies low productivity and the need for stronger private-sector capabilities among Rwanda’s structural development challenges. Its country-level diagnosis is valuable for institutional interpretation but does not determine the return from a particular accelerator, loan product or digital platform. For a microenterprise, simplified records and dependable workspace may be the binding intervention; for a larger exporter, reliable inputs, certification and market knowledge may dominate. These hypotheses require sector-specific tests rather than universal prescriptions.

27.10.2 Institutional opportunities and constraints

Rwanda Development Board's Office of the Registrar General describes business registration as an online, free-of-charge process, a significant administrative entry arrangement (RDB, n.d.). Registration nevertheless does not guarantee finance, compliant premises, access to utilities, qualified workers, adequate demand or an operating license in a regulated activity. A complete ecosystem analysis must trace the practical sequence of permission, finance, working space, procurement markets, infrastructure, transport, tax administration, digital access and dispute resolution. Formalization may improve contracting and market access; it can also generate compliance and reporting obligations that differ materially by sector, turnover and enterprise legal form. The entrepreneur should verify the currently applicable primary rules rather than infer legal requirements from an outdated business guide.

Institutional arrangements also change over time. In July 2025 the Government of Rwanda announced the integration of the Business Development Fund into the Development Bank of Rwanda, with the stated aim of strengthening finance and guarantee delivery (Ministry of Finance and Economic Planning [MINECOFIN], 2025). The announcement documents policy intent and administrative direction, not independently verified increases in additional lending or firm survival. Researchers should subsequently compare application access, guarantee uptake, approval times, geographic coverage, defaults and enterprise outcomes before inferring effectiveness. Such a distinction between announced reform, implemented service and attributable result is particularly important where public support is described as an entrepreneurial ecosystem achievement.

27.10.3 Incubation and entrepreneurial intermediaries

Universities, vocational institutions, incubators, accelerators, business-development service providers, chambers and industry associations can help with knowledge, peer networks and introductions to buyers. But program participation is selected and often self-reported; graduates' subsequent revenue growth does not establish programme additionality unless appropriate counterfactuals are identified. Ecosystem policy

should publish accessible criteria, monitor founder demographics and geography, distinguish grants from loans, and disclose measurable outcomes such as paid customer retention, productivity, formal jobs and survival. Otherwise, an ecosystem may become more efficient at producing proposals than viable enterprises. Isenberg (2010) argued against copying Silicon Valley wholesale and emphasized locally anchored institutional combinations; Stam (2015) likewise insists on stronger causal specification.

27.10.4 African comparison without ecological overreach

Kenya's 2024 FinAccess Household Survey reports 84.8% formal financial access among adults, whereas Rwanda's 2024 FinScope reports 92% formally served among adults under its own definitions (Central Bank of Kenya et al., 2024; AFR, 2024). These household figures should not be used to rank enterprise financing conditions because methodologies, markets and respondent populations differ. Kenyan mobile-money scholarship suggests that financial infrastructure can influence livelihood and occupational transitions (Suri & Jack, 2016), but the historical effect of M-PESA cannot be transferred directly to a new Rwandan digital credit or delivery platform. The relevant comparative variables include merchant acceptance, interoperability, pricing, consumer remedy, data access, connectivity and competition.

27.10.5 Policy evaluation and structural transformation

Entrepreneurship policy should distinguish support for subsistence resilience from support for high-potential firm growth, while enabling mobility between them. A district with many businesses may still have weak productive linkages; a city with several technology hubs may still lack manufacturing suppliers or mid-career technical expertise. Public procurement access, verified infrastructure reliability, vocational education, export standards and supplier development may matter as much as accelerators. The analytical standard is whether an intervention creates *additional*, fairly distributed productive capacity relative to plausible alternatives. Counts of registrations and financed applicants remain useful operational indicators, but they cannot substitute for measured benefits net of programme cost and unintended displacement.

27.11 SOCIAL AND SUSTAINABLE ENTREPRENEURSHIP

Social entrepreneurship uses entrepreneurial organizing to address a defined social or environmental problem, frequently through market transactions and sometimes through philanthropic or public support. Sustainable entrepreneurship connects economic activity with environmental and societal constraints, including problems caused by unpriced pollution and information asymmetry (Cohen & Winn, 2007). Neither label establishes impact. A social venture may generate revenue without reaching vulnerable beneficiaries; an enterprise offering a recyclable product may still impose high transport emissions or unsafe labour conditions. The appropriate inquiry asks whether the activity creates additional net benefits, who experiences them and what counterfactual outcome would otherwise have occurred.

27.11.1 Mission, governance and the danger of drift

Hybrid enterprises combine objectives whose performance may be measured in incompatible units. Ebrahim et al. (2014) examine mission drift and accountability problems in organizations blending commercial and social purposes. If a cold-chain provider claims its mission is to reduce post-harvest loss, it may have an incentive to serve only the most profitable urban wholesalers, leaving remote producers excluded. A responsible model must identify minimum service commitments, who can challenge adverse decisions, who has voting or consultation rights, and whether the subsidy or profit allocation is transparently governed. Mission-protected provisions may help but cannot replace evidence of outcomes.

27.11.2 The impact chain and attribution

Inputs such as vehicles and trained drivers enable activities such as monitored transport. Outputs include deliveries made or kilograms handled; outcomes might include fewer rejected consignments or higher producer receipts; impact concerns incremental changes attributable to the intervention after accounting for

other causes. The distinction is critical: a venture cannot infer reduced national food loss from the number of refrigerated trips. A stronger evaluation would measure losses on comparable routes before and after implementation, examine selection into service, document seasonal and weather conditions, and measure any rebound in packaging waste or fuel emissions. Where randomized comparison is infeasible, transparent comparison groups, interrupted time-series designs and sensitivity analyses may still improve inference, although they do not eliminate confounding.

Impact evidence needs an explicit theory of change and a measurement boundary. For food logistics, the proposed causal chain may run from temperature monitoring and reliable transport to fewer rejected deliveries, less disposal, higher producer receipts and improved access to fresh food. Each arrow needs its own assumptions: spoilage may be driven by harvesting practice rather than transport, and lower losses may expand supply without increasing net farmer income. Attribution also requires attention to substitution: a customer moving from an existing competent carrier to the new venture may improve neither sector productivity nor environmental performance. An outcome dashboard should disclose the number of eligible nonusers, baseline comparison, missing observations, service duration and uncertainty as well as the headline impact claim.

27.11.3 Ethical limits to profitable innovations

Entrepreneurs may generate returns by shifting hazards to subcontractors, appropriating customers' data, suppressing competitor access or exploiting information disadvantages. These strategies can be profitable while violating duties of fair dealing and human dignity. Environmental claims require appropriate lifecycle boundaries: electricity used by cold storage, refrigerant leakage, vehicle fuel, packaging and avoided spoilage should be considered together. A business that cannot yet measure these flows should disclose the measurement gap rather than announce a precise climate benefit. Ethical entrepreneurship combines financial transparency, customer safety, fair work, truthful claims, grievance mechanisms and the deliberate capacity to correct harmful consequences.

27.12 EMERGING ENTREPRENEURSHIP FRONTIERS

27.12.1 AI-native ventures and the economics of automation

Generative AI can reduce some costs of drafting, coding, customer support, translation and information retrieval, potentially enabling founders to test propositions with fewer initial resources. Yet lower production cost does not by itself create defensible demand or a durable business advantage. Brynjolfsson et al. (2025) examined AI assistance among 5,172 customer-support agents and documented heterogeneous productivity effects in that organizational setting. The study does not establish that every entrepreneur will achieve equivalent benefits or that all AI-generated products are commercially valuable. AI-mediated outputs may hallucinate, infringe intellectual-property interests, expose confidential data or reproduce discriminatory decisions; emerging venture design therefore requires validation, legitimate data provenance, security and accountable human supervision.

Digital entrepreneurship also changes where opportunity boundaries lie. Nambisan (2017) argues that digital technologies make entrepreneurial processes less bounded and the location of agency less predetermined. Software platforms may provide distribution, payment integration and global visibility at low initial cost, but platform dependence also creates concentration risk. Fees, ranking algorithms, account suspension, withheld payouts and access to customer data can change unexpectedly. A founder should test the business model under increased platform fees or a sudden loss of the primary channel. Contractually portable data, diversified distribution and documented customer relationships become strategic assets.

27.12.2 Creative economies and knowledge-intensive ventures

Cultural production, digital media, design, educational content and professional knowledge services can reach new audiences through digital channels. Their value depends on copyright and licensing arrangements, discoverability, authentic quality, fair remuneration and sustained customer trust. Intellectual-property protection is not a substitute for a market: an invention with no feasible route to adoption remains economically uncertain. Conversely, excessive proprietary restrictions can prevent cooperation and local adaptation. Open licensing and commercial exclusivity are choices whose consequences for revenue, knowledge diffusion and beneficiaries should be explicit.

Digital creative ventures face distinctive economics of fixed content-production cost, low-cost duplication, attention scarcity and platform-mediated discovery. They need to distinguish audience reach from paying demand, intellectual-property ownership from contractual permission, and recurring subscriptions from reliable retention. Where an entrepreneur also teaches, researches or produces public-interest material, conflicts among scholarly integrity, commercial promotion, privacy and institutional affiliation deserve explicit rules. Claims of market size based on worldwide internet access are particularly weak without evidence of language fit, discoverability, willingness to pay and lawful payment settlement.

27.12.3 Digital internationalization

Online selling can connect African ventures with global buyers, but actual cross-border performance still depends on payment settlement, export documentation, customs, delivery, service remedies, exchange rates, language and destination rules. The ability to open a digital storefront is not the ability to fulfill a legally compliant international order. AfCFTA and regional integration may change market opportunities, yet the practical advantages depend on operative schedules, origin rules, transport and customs implementation rather than the existence of an agreement alone. Chapter 30 addresses detailed trade policy; Chapter 28 handles systems architecture and Chapter 29 specialist AI governance. The entrepreneur's immediate responsibility is to determine whether a specific destination transaction can be executed reliably and profitably.

The enduring distinction is between technology as an input and entrepreneurial capability as a coordinated system. A venture that adopts AI, cloud platforms or automated routing without stable records, appropriate expertise, cybersecurity measures and customer remedy may become faster at generating unreliable outputs. Emerging tools should therefore face the same discipline applied to traditional innovations: identify a real problem, make a testable claim, compare appropriate alternatives, calculate full lifecycle costs, protect legitimate rights and revise decisions in response to evidence.

Technology also changes the distribution of entrepreneurial risk. Synthetic media and automated customer acquisition can lower the cost of experimentation while increasing the volume of misleading claims; cloud concentration creates correlated outages across ostensibly independent firms; and data-driven personalization can exploit customers who cannot assess the information used against them. AI-assisted venture analysis should therefore record data provenance, model limitations, human review, security controls and failure-remedy procedures. Competitive advantage grounded solely in access to widely available generative models is liable to imitation; differentiated process knowledge, domain expertise, verified customer relationships and lawful data access may be more durable. These observations are conditional strategic propositions, not forecasts that AI will eliminate either small firms or human entrepreneurship.

27.13 INTEGRATED RWANDA VENTURE FEASIBILITY DOSSIER: A REPRODUCIBLE TEACHING CASE

27.13.1 Case identity and evidentiary status

FreshLink Rwanda is an entirely fictional enterprise designed to demonstrate the integration of the chapter's concepts. Its proposed product is temperature-controlled distribution from horticultural

aggregation points to selected institutional and wholesale buyers in and around Kigali. The name, customer counts, operational capacity, financing figures, trial responses, cost estimates and decisions below are invented solely for reproducible instruction. No interviews, field observation, purchase orders, investment offers or actual financial outcomes are represented. The case draws its institutional setting, but not its company-level parameters, from the verified Rwandan sources examined in Section 27.10.

The dossier is designed as a sequence of conditional management judgments rather than a forecast of a real operating company. The primary units are prospective institutional buying organizations, paid shipment services, monthly delivery volume and available unrestricted cash. No national survey estimate is converted into a fictitious company order. Price, variable cost, fixed cost, installed capacity, receivable days and creditor days are treated as independent inputs only for arithmetic transparency; a live feasibility study would assess their covariance, seasonality and response to route density. These distinctions are essential if the numerical illustration is to teach methodological caution rather than unwarranted precision.

27.13.2 The problem statement and hypothesized exchange

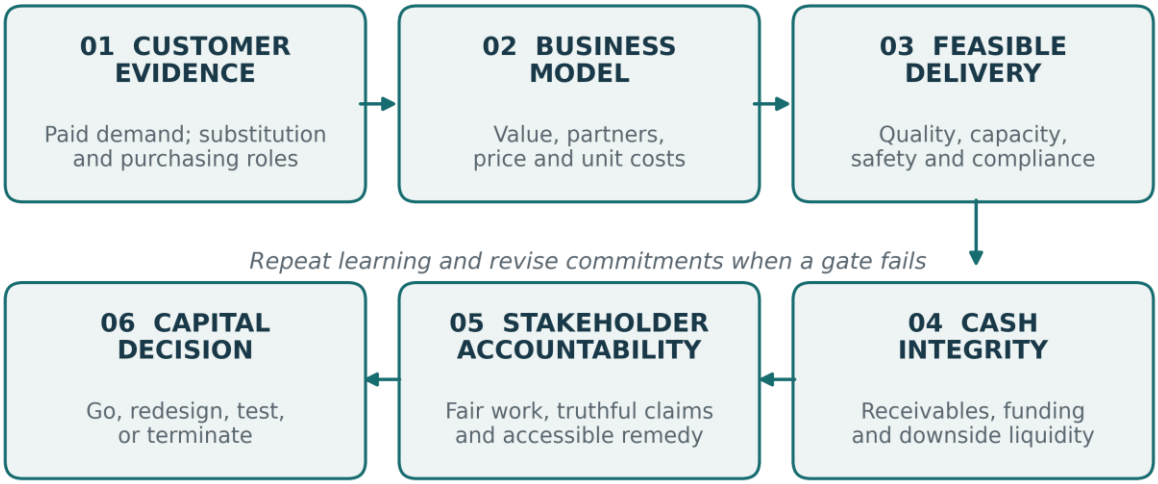
Some produce sellers may need more dependable logistics and temperature assurance. Whether they will pay enough for a new service depends on product value, existing loss rates, route density, price, seasonality and available transport alternatives. FreshLink hypothesizes that a buyer would purchase a shipment service at a net fee of RWF 6,000 per delivery. The founder assumes an average variable service cost of RWF 3,200, including fuel, handling, consumables and variable vehicle usage; monthly fixed operating costs of RWF 8.4 million cover fixed staffing, facility access, base systems, insurance and overhead. Each component requires supplier quotations or trial-cost records before investment. A nominal plant capacity of 4,800 deliveries per month is assumed, contingent on routes, peak demand and maintained quality. All calculations are before interest, tax, depreciation and extraordinary disruption costs. The financial example must not be used as evidence of current Rwandan market prices.

27.13.3 A bottom-up market estimate with explicit gaps

The venture identifies, hypothetically, 650 organizational buyers located in reachable routes and estimates an average of twelve potential deliveries per buyer per month. The assumed SAM is therefore 650 × 12 = 7,800 deliveries monthly, or 93,600 per year. This is a planning assumption, not a count drawn from NISR. Achieving 3,600 deliveries per month would mean capturing approximately 46.2% of that assumed SAM and operating at 75% of designed capacity. Both levels are ambitious for a new entrant. A preliminary customer trial with sixty eligible organizations and twelve distinct organizations each making at least one paid pilot booking would indicate a 20% observed conversion at the proposed price, below an illustrative prior decision hurdle of 30%. The venture therefore has not validated the adoption assumption. Potential market estimates must not be reclassified as confirmed bookings.

For methodological clarity, the sixty contacted organizations in this constructed example constitute a hypothetical convenience or purposive pilot frame, not a random draw from all 650 putatively reachable buyers. The twenty-percent conversion does not therefore furnish an unbiased estimate of demand across that putative market. A subsequent evaluation should stratify by buyer size, purchasing authority, route distance and season, record nonresponse, and test at-price renewal after an initial service experience. Survey estimates from NISR and AFR provide external context but do not supply missing buyer-specific conversion rates. A disciplined feasibility dossier reports these gaps next to the numerical assumptions rather than burying them in general risk commentary.

Figure 27.1. Opportunity-to-enterprise validation and capital-commitment gates



Note. Original conceptual synthesis. The model imposes recurrent reviews of customer evidence, operating feasibility, liquidity, rights and accountability; it is not a validated predictive model. Failed gates may lead to redesign, renewed testing or termination rather than automatic escalation.

Table 27.4. Core assumptions and evidence requirements for FreshLink Rwanda

Item	Hypothetical assumption	Evidence required before commitment
Addressable reachable buyers	650 organizations	Verified nonduplicated sampling frame and purchasing roles
Monthly potential per buyer	12 deliveries	Historical order frequency and seasonal distribution
Service fee, net of applicable transaction taxes	RWF 6,000/delivery	At-price signed pilot terms and substitutes' prices
Variable cost	RWF 3,200/delivery	Fuel, distance, handling, temperature and maintenance logs
Fixed monthly cost	RWF 8,400,000	Lease, salaries, insurance, permits, systems and quotes
Maximum monthly throughput	4,800 deliveries	Demonstrated route density, quality and downtime capacity
Initial fixed investment	RWF 65,000,000	Supplier quotes, useful lives and contingency estimates
Collection and variable-cost payment cycles	30 and 7 days, respectively	Contract terms and actual settlement behaviour
Minimum liquidity buffer	RWF 9,000,000	Stress test of payroll, essential inputs and failures

Note. All amounts and quantities are constructed by the author for analytical instruction. They are not observations of an identified enterprise. Net-of-tax accounting is adopted for simplicity; real taxation, financing, depreciation, replacement and licensing require separate verification.

27.13.4 Step 1: Contribution and operating break-even

With monthly q deliveries, unit contribution equals p − v = 6,000 − 3,200 = RWF 2,800. The break-even volume is F/c = 8,400,000/2,800 = 3,000 deliveries per month. The break-even monthly service revenue is

3,000 × 6,000 = RWF 18,000,000. The contribution-margin ratio is 2,800/6,000 = 46.67%; an equivalent revenue calculation is 8,400,000/(2,800/6,000) = RWF 18 million. An error in any of these assumptions can materially change the result. If the true variable cost is RWF 3,800, contribution falls to RWF 2,200 and break-even volume rises to approximately 3,819 deliveries; if demand fails to support the proposed price, the constraint is more severe.

27.13.5 Step 2: Scenario-sensitive operating outcomes

Table 27.5 shows alternatives without claiming that they are exhaustive, mutually exclusive future states or statistically weighted forecasts. The operating-result formula is q × RWF 2,800 − RWF 8.4 million. The decision relevance lies in the thin initial margin and the strong sensitivity of the business to volume shortfall.

The scenario table is intentionally one-dimensional so readers can audit the arithmetic. It is not a full stress model. Real logistics costs can change with delivery distance, refrigeration requirements, customer concentration and vehicle utilization, while an increase in volume may lower net prices or delay collection. Before committing capital, the founder would construct at least a joint downside case in which weekly orders fall, route density deteriorates and large buyers pay late. Scenario labels must be tied to actual drivers and evidence; none of these illustrations implies measured probabilities or guaranteed capacity at each output level.

Table 27.5. Auditable monthly operating scenarios, all figures hypothetical

Monthly deliveries	Revenue (RWF m)	Variable cost (RWF m)	Contribution (RWF m)	Fixed cost (RWF m)	Simplified operating result (RWF m)
2,600	15.60	8.32	7.28	8.40	−1.12
3,200	19.20	10.24	8.96	8.40	+0.56
3,600	21.60	11.52	10.08	8.40	+1.68
4,400	26.40	14.08	12.32	8.40	+3.92
4,800	28.80	15.36	13.44	8.40	+5.04

Note. Figures are in millions of Rwandan francs, before depreciation, tax, finance costs, unexpected losses and major expansion investment. Positive operating contribution is not sufficient evidence of solvency or investment attractiveness.

27.13.6 Step 3: First-year transition, liquidity and working capital

A venture rarely reaches a stable target from its first month. Assume four months at 2,400 deliveries, four at 3,200, and four at 3,600. The annual contribution becomes [(2,400 + 3,200 + 3,600) × 4] × RWF 2,800 = RWF 103.04 million. Annual fixed expenses total RWF 100.80 million, leaving a simplified first-year positive operating result of only RWF 2.24 million. This is an intentionally thin margin, before depreciation, financing, tax or other nonmodelled costs. A founder who instead applies the final 3,600-delivery run rate to all twelve months overstates the year's operating result by RWF 17.92 million.

The ramp-up model also exposes a necessary financing correction. At 2,400 deliveries per month, contribution is RWF 6.72 million against fixed expenses of RWF 8.4 million, yielding a simplified monthly operating loss of RWF 1.68 million. Four such months accumulate RWF 6.72 million of losses before the later positive months, even ignoring collection delays, taxes and financing. Thus the preliminary RWF 92.912 million long-run funding bridge is not a credible ceiling. Merely adding the four-month operating trough produces an indicative RWF 99.632 million requirement, assuming the investment, working-capital requirement, cash buffer and operating trough do not overlap, an assumption that would need reconciliation through a dated cash-flow schedule. This addition is deliberately conservative as a screening stress calculation, not a fully timed cash budget; the peak financing need may differ because receivables and supplier payables build at different rates.

Cash dynamics create a separate problem. At 3,600 deliveries, revenue is RWF 21.6 million monthly; if the collection period is thirty days, average receivables approximate RWF 21.6 million under a uniform-flow assumption. Variable costs are RWF 11.52 million monthly; seven days of corresponding supplier credit imply RWF 11.52 million × 7/30 = RWF 2.688 million in associated payables, assuming 30-day months and full eligibility of variable cost for supplier credit. The resulting simplified incremental net working capital is RWF 18.912 million. Adding RWF 65 million fixed investment and a hypothesized RWF 9 million minimum cash buffer gives a preliminary committed-funding need of RWF 92.912 million. This does not include financing fees, initial losses before reaching the run rate, tax, contingencies or other current assets and liabilities; it is therefore a minimum diagnostic rather than a complete cash budget. A proposed RWF 90 million financing package would fall short by RWF 2.912 million even under these simplifying assumptions.

Figure 27.2. Monthly operating-result sensitivity to delivered volume



Note. Original calculations using the hypothetical FreshLink price, unit variable cost and fixed-cost assumptions in Table 27.4. The line shows simplified monthly operating result, not cash balance or net present value.

27.13.7 Step 4: Decision sensitivity and financial prudence

At the stable target of 3,600 deliveries, simplified monthly operating contribution after fixed costs is RWF 1.68 million, giving RWF 20.16 million over twelve identical months. Dividing the RWF 65 million fixed investment by RWF 1.68 million yields roughly 38.7 months of *simple* operating payback, ignoring the funding of receivables, depreciation, tax, capital replacement, financing and escalation. This is not a project payback calculation suitable for approval and not a discounted valuation. The business's price, volume, average route length, reliable cold-chain performance and collection cycle interact; scenario testing should vary them jointly rather than one at a time when they share economic drivers. Proper capital budgeting must evaluate timed free cash flows, taxes, salvage, replacement, financing constraints and an appropriate opportunity cost of capital (Chapter 24).

A separate cash-runway calculation makes the liquidity limitation concrete. An isolated RWF 9 million cash reserve would cover only about 1.07 months of RWF 8.4 million fixed expenditure if no receipts occurred and no other cash outflows or emergency funding were considered. At the hypothetical 2,400-delivery operating loss of RWF 1.68 million per month, the same reserve would cover approximately 5.36 months of that narrow accounting operating loss if contribution were received in cash immediately. Neither ratio measures actual runway, because wages and fuel are paid on different schedules from customer receipts and because working capital, financing and taxes are excluded. A managerial runway measure must use the lowest projected unrestricted cash balance from a rolling weekly cash forecast; management should never report an EBITDA-based proxy as a verified survival horizon.

27.13.8 Step 5: Evidence-based recommendation and gates

Under the stated premises, the venture should **not commit to the RWF 65 million fleet and infrastructure investment yet**. The 20% pilot conversion falls below the predeclared 30% hurdle, the target volume requires an aggressive share of the assumed serviceable market, and the estimated funding requirement already exceeds an illustrative RWF 90 million package before plausible start-up losses. This is a decision under hypothetical assumptions, not a judgment about any actual Rwandan company or the commercial feasibility of cold-chain logistics in general. A more defensible next stage is a time-bounded paid pilot using leased, quality-assured capacity, with pre-agreed customer segments, verifiable temperature controls, cash-collection records and a maximum affordable loss. Investment could be reconsidered if repeat paid volume, gross contribution, supplier capability, safety, permits and liquidity thresholds are independently documented.

Table 27.6. Compact venture feasibility decision register

Gate and owner	Evidence that must exist	Illustrative threshold	Current case decision
Buyer need; commercial lead	Sample frame, buyer roles, competing solutions	Problem evidenced in more than one segment	Unverified
Willingness to pay; research lead	Completed at-price paid pilot and refusals	At least 30% pilot conversion	20% assumed: not met
Quality and capacity; operations lead	Logged temperatures, routes, service failures	All safety-critical specifications met	Not demonstrated
Unit economics; finance lead	Actual variable cost and achievable price	Contribution positive after full variable costs	Hypothesized only
Cash protection; finance lead	Monthly receipts and payments, downside buffer	No unfunded minimum liquidity gap	RWF 2.912m short, before losses
Social integrity; venture board	Supplier terms, worker safety, complaints	No unremedied material violations	Not yet assessed

Note. Original decision instrument. The numeric thresholds are assumed training criteria, not externally established sector norms. 'Not demonstrated' requires further evidence; it does not establish failure in actual commercial activity.

27.14 INTEGRATIVE COMPARISON, CROSS-FUNCTIONAL CONSEQUENCES AND RESEARCH AGENDA

The Rwandan teaching case illustrates why a business idea cannot be evaluated as a self-contained marketing forecast. Marketing and customer research identify purchasing behaviour and segment economics (Chapters 13–16), while operations and quality assurance establish whether that demand can be fulfilled consistently (Chapters 17 and 20). Procurement and logistics determine supplier exposure and network reliability (Chapters 18–19). Management accounting distinguishes contribution from allocative cost and supports decision revision (Chapter 23); finance assesses investment, liquidity and solvency (Chapter 24); taxation and internal controls establish documentary accountability (Chapter 26). People management and governance condition work quality, safety, founder accountability and the legitimacy of expanding operations (Chapters 8–12). Entrepreneurship must mobilize these functions before any one of them becomes an established department. This is the chapter's specific contribution to the book's integrated-enterprise argument.

27.14.1 Comparative evidence and its boundaries

Experimental findings from Italy show that scientific hypotheses may improve some entrepreneurial decisions (Camuffo et al., 2020, 2024); Nigeria's grant competition shows potential for targeted financing to support growth under a specific selection regime (McKenzie, 2017); an Indian management intervention indicates that information and routines can be economically consequential (Bloom et al., 2013); and Kenya's

mobile-money history demonstrates that digital infrastructure may affect household economic choices (Suri & Jack, 2016). None is evidence that FreshLink Rwanda will succeed. The populations, sectors, incentives, interventions and outcome periods differ materially. A responsible comparative chapter treats these studies as mechanisms and hypotheses worth examining under Rwandan conditions, not coefficients that can be inserted into a local pro forma without calibration.

A further conceptual distinction concerns *private viability*, *social value* and *public policy effectiveness*. A business can be solvent without producing a net social benefit, and a socially useful service can remain commercially unviable without a legitimate subsidy. A publicly supported programme may increase firm entry while displacing competitors, subsidizing businesses that would otherwise have emerged or disproportionately assisting well-connected applicants. Causal assessment of public policy therefore requires counterfactual net benefits, distribution and programme costs. The enterprise analyst should not substitute moral approval of entrepreneurship for an evaluation of actual results.

27.14.2 Research directions

First, longitudinal enterprise data could test whether validated demand, operational discipline and access to appropriate working capital jointly predict survival more strongly than initial funding alone; selection and unobserved founder capability would require careful treatment. Second, qualitative comparative work could examine how Rwandan informal enterprises combine discovery, bricolage and stakeholder commitment, separating resourceful adaptation from harmful workarounds. Third, matched administrative data might assess whether business-registration simplification affects survival and productive formalization rather than only initial registration, with attention to parallel policy changes. Fourth, randomized or staggered implementation of practical management assistance could test differentiated effects for micro, small and medium ventures and potential gender and location heterogeneity. Fifth, credible evaluation of AI-assisted venture support should measure actual customer outcomes, cost, errors, privacy incidents and employment consequences rather than mere software uptake. Sixth, mixed-method impact studies could test whether digitally mediated value chains raise producer income after platform fees, credit terms, spoilage and displacement effects are included.

A replicable research agenda should specify estimands rather than only topics. For example, an evaluation of practical management support might estimate the average difference in twelve-month survival among otherwise eligible enterprises offered an intervention relative to those not yet offered it. A randomized invitation could identify an intention-to-treat effect where allocation and follow-up are credible, while actual uptake may require further assumptions for treatment-on-the-treated interpretation. Researchers must record enterprise closure, migration, missing accounting records and selective nonresponse because each can distort apparent improvement. For ecosystem comparisons without a credible experiment, matched designs and longitudinal fixed effects may reduce observable confounding but cannot eliminate unobserved selection or reverse causality. Negative and null outcomes must be reported, not treated as inconvenient departures from an entrepreneurship-promotion narrative.

These questions illustrate a research programme rather than claimed study findings. Secondary data alone may support descriptive mapping and cautious comparative inference but cannot resolve all entrepreneurial causal mechanisms. Where new interviews, trials or administrative linkage are proposed, the appropriate sampling, consent, data-sharing, pre-analysis and ethical approvals would need separate implementation.

27.15 CRITICAL SYNTHESIS AND CONCLUSION

Entrepreneurship begins with the possibility of reorganizing resources to address a problem, but responsible enterprise development is measured by what can be demonstrated rather than by a founder's confidence. Schumpeterian new combinations illuminate innovation; Kirznerian alertness explains

overlooked coordination gaps; Knight clarifies the limits of prediction; effectuation and bricolage explain how entrepreneurs mobilize resources in uncertain settings; and institutional theory shows why identical effort produces different possibilities under different constraints. These perspectives are complementary only when their distinct causal and interpretive claims remain explicit. Opportunity discovery is not automatically market creation, and iteration is not automatically scientific experimentation.

The chapter's practical lesson is to connect six recurrent disciplines in the same decision record: meaningful customer benefit, verifiable willingness to commit, technically and legally feasible delivery, financially sustainable resource flows, fair governance of stakeholder interests, and a procedure for learning from contrary evidence. The weakest necessary condition may determine whether an enterprise can meet its commitments. Strong sales cannot compensate for unsafe service; sound technology does not compensate for absent demand; accounting profitability does not compensate for insufficient cash; and social language does not compensate for unmeasured social consequences.

Rwanda's large population of micro and informal enterprises makes these distinctions particularly consequential. Business creation policy should recognize livelihood activity without treating it as evidence of rapid innovation, and should nurture growth-oriented ventures without assuming that every enterprise ought to scale. Financing, infrastructure, capable management, market access and institutional legitimacy interact in ways that differ by sector and size. The fictional cold-chain dossier deliberately ends with a conditional noninvestment decision, demonstrating that entrepreneurial judgment includes disciplined refusal as well as invention. Subsequent chapters extend this analysis through digital systems, AI, international business and sustainability. The enduring challenge remains to build enterprises that can earn trust through what they deliver, how they govern relationships, and how they respond when evidence contradicts expectations.

Table 27.7. Seven substantive conclusions for entrepreneurial decision-making

Scholarly conclusion	Practical implication
Entrepreneurs organize uncertain economic and social possibilities, not merely company registrations.	Specify the intended exchange and the wider effects of enterprise entry.
Rival theories illuminate different mechanisms and cannot all be treated as universal laws.	Identify which assumptions apply to the particular venture and decision.
Market estimates and stated preferences are weaker than sustained paid demand.	Maintain source provenance and explicit validation thresholds.
A viable business model joins value creation, delivery and legitimate capture.	Diagnose cross-functional dependencies, payment timing and exposure.
Positive contribution does not establish liquidity, investment value or safety.	Reconcile operational, cash, legal and stakeholder feasibility.
Rwanda's MSMEs require differentiated rather than one-size-fits-all support.	Distinguish livelihood protection, capability improvement and high-growth policy.
Digital and social claims must be subjected to evidence and accountable correction.	Verify actual performance, consent, environmental effects and remedies.

Note. Author's integrative synthesis of the verified literature and the hypothetical analytical case developed in this chapter.

27.16 KEY CONCEPTS, LEARNING ASSESSMENT AND PROFESSIONAL RESOURCES

27.16.1 Selected terminology

Affordable loss is the maximum exposure an entrepreneur can accept without relying on a speculative favourable forecast. *Bootstrapping* is venture financing through internally accessible resources and carefully managed commitments. *Bricolage* denotes resource recombination using materials and relationships at hand.

Business model describes the coordinated logic of value creation, delivery and capture. *Contribution margin* is revenue less costs that vary with the relevant volume. *Customer discovery* is disciplined inquiry into actual problems, alternatives, purchasing roles and behaviour. *Effectuation* is a decision logic that begins with available means and stakeholder commitments under uncertainty. *Enterprise development* is the strengthening of organizational capacity to deliver defensible value over time. *Entrepreneurial ecosystem* denotes interacting institutional, market and social conditions that enable or constrain productive entrepreneurial activity. *Minimum viable offer* is a constrained, ethically adequate test of a specified commercial proposition. *Opportunity creation* recognizes that entrepreneurial action may constitute products, markets and preferences. *Opportunity discovery* emphasizes identifiable possibilities before entrepreneurial action. *SAM* is serviceable available market subject to practical boundaries; *SOM* is the volume realistically obtainable under constraints; *TAM* is a defined broader market potential. *Scaling* is the expansion of value delivery and organizational capability under manageable cost, risk and accountability. *Unit economics* are revenues and genuinely variable costs attributable to a relevant unit of economic activity. The terms must be applied with explicit definitions when research designs or management reports operationalize them.

27.16.2 Foundational questions (LO1–LO3)

Explain why a firm may be newly registered without displaying Schumpeterian innovation. Contrast Knight's uncertain entrepreneurial judgment with actuarial risk. Under what observable conditions would Kirznerian discovery be a better explanation of a venture than opportunity creation? Discuss an example in which a necessity venture becomes opportunity-oriented, without assigning moral superiority to either category. Why can an official enterprise count inform market analysis without validating customer willingness to pay?

27.16.3 Applied diagnostic exercises (LO3–LO6)

Using Table 27.2, replace one assumption in each of the nine business-model blocks with a source of evidence and assign a responsible person and date. Draft a six-question customer interview protocol that avoids leading questions, records nonpurchase explanations and protects confidential information. Recalculate FreshLink Rwanda's break-even deliveries if price falls to RWF 5,500 and variable unit cost rises to RWF 3,400 while fixed costs remain unchanged; explain why the resulting numerical value does not by itself justify investment. Construct a cash-collection schedule for customers paying after 15, 30 and 45 days and estimate the associated change in simplified receivables using the case's 3,600-delivery run rate. Compare the change with an equivalent reduction in supplier credit.

27.16.4 Advanced evaluative assignment (LO2, LO5–LO8)

Prepare a 2,500–3,500-word evidence-based investment committee memorandum for the fictional FreshLink venture. Integrate two rival entrepreneurship theories; define the estimand for the paid-pilot conversion rate; provide a bottom-up market and competitor analysis; reconstruct the operating and working-capital model; show the effect of at least two correlated downside assumptions; evaluate employment, customer, supplier and environmental exposure; and issue a conditional go, redesign or stop recommendation. Cite authoritative academic and Rwandan institutional sources, separate observed secondary evidence from synthetic assumptions, and include a decision audit trail. A defensible submission must not manufacture fieldwork or promote an illustration into a factual company case.

27.16.5 Suggested educator use

Students can work in cross-functional teams, with each member responsible for marketing evidence, operations, finance, governance or sustainability. The assessment rubric should value the precision of evidence classifications, mathematical reconciliation, justified theoretical choice and treatment of adverse findings above confidence of presentation. A strong student may appropriately recommend termination of

the venture, provided the reasoning is explicit and responsive to the agreed decision gates. To test methodological literacy, instructors may provide alternative sampling frames and ask whether the reported conversion is generalizable; to test practical judgment, they may introduce an unexpected equipment shutdown and require revision of the cash forecast and service promises.

27.16.6 Further reading

Sarasvathy (2001) provides the theoretical contrast between prediction-based and effectual decision logics; Alvarez and Barney (2007) develop the ontological debate about entrepreneurial opportunities; Camuffo et al. (2020, 2024) provide experimental perspectives on scientific entrepreneurial practice; Stam (2015) supplies a critical ecosystem framework; McKenzie (2017) illustrates rigorous evaluation of growth-oriented grants; and the NISR (2026) and AFR (2025) reports provide indispensable Rwanda-specific empirical context. Readers should distinguish the purposes, samples and inference limitations of each source.

REFERENCES

Access to Finance Rwanda. (2024). *Rwanda FinScope survey 2024*. https://afr.rw/downloads/rwanda-finscope-2024-report/

Access to Finance Rwanda. (2025). *Rwanda MSME FinMap report 2024*. https://afr.rw/downloads/rwanda-msme-finmap-report-2024/

Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal, 1*(1–2), 11–26. https://doi.org/10.1002/sej.4

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly, 50*(3), 329–366. https://doi.org/10.2189/asqu.2005.50.3.329

Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics, 7*(1), 22–53. https://doi.org/10.1257/app.20130533

Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., & Roberts, J. (2013). Does management matter? Evidence from India. *The Quarterly Journal of Economics, 128*(1), 1–51. https://doi.org/10.1093/qje/qjs044

Brynjolfsson, E., Li, D., & Raymond, L. (2025). Generative AI at work. *The Quarterly Journal of Economics, 140*(2), 889–942. https://doi.org/10.1093/qje/qjae044

Camuffo, A., Cordova, A., Gambardella, A., & Spina, C. (2020). A scientific approach to entrepreneurial decision making: Evidence from a randomized control trial. *Management Science, 66*(2), 564–586. https://doi.org/10.1287/mnsc.2018.3249

Camuffo, A., Gambardella, A., Messinese, D., Novelli, E., Paolucci, E., & Spina, C. (2024). A scientific approach to entrepreneurial decision-making: Large-scale replication and extension. *Strategic Management Journal, 45*(6), 1209–1237. https://doi.org/10.1002/smj.3580

Central Bank of Kenya, Kenya National Bureau of Statistics, & Financial Sector Deepening Kenya. (2024). *2024 FinAccess household survey report*. https://www.knbs.or.ke/reports/2024-finacess-household-survey-report/

Cho, Y., & Honorati, M. (2014). Entrepreneurship programs in developing countries: A meta regression analysis. *Labour Economics, 28*, 110–130. https://doi.org/10.1016/j.labeco.2014.03.011

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing, 22*(1), 29–49. https://doi.org/10.1016/j.jbusvent.2004.12.001

de Mel, S., McKenzie, D., & Woodruff, C. (2009). Are women more credit constrained? Experimental evidence on gender and microenterprise returns. *American Economic Journal: Applied Economics, 1*(3), 1–32. https://doi.org/10.1257/app.1.3.1

Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping it simple: Financial literacy and rules of thumb. *American Economic Journal: Applied Economics, 6*(2), 1–31. https://doi.org/10.1257/app.6.2.1

Ebrahim, A., Battilana, J., & Mair, J. (2014). The governance of social enterprises: Mission drift and accountability challenges in hybrid organizations. *Research in Organizational Behavior, 34*, 81–100. https://doi.org/10.1016/j.riob.2014.09.001

Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice, 36*(5), 1019–1051. https://doi.org/10.1111/j.1540-6520.2012.00537.x

Global Entrepreneurship Monitor. (2026). *GEM 2025/2026 global report: From uncertainty to opportunity*. https://www.gemconsortium.org/reports/latest-global-report

Isenberg, D. J. (2010). How to start an entrepreneurial revolution. *Harvard Business Review, 88*(6), 40–50. https://hbr.org/2010/06/the-big-idea-how-to-start-an-entrepreneurial-revolution

Kerr, W. R., Nanda, R., & Rhodes-Kropf, M. (2014). Entrepreneurship as experimentation. *Journal of Economic Perspectives, 28*(3), 25–48. https://doi.org/10.1257/jep.28.3.25

Kirzner, I. M. (1973). *Competition and entrepreneurship*. University of Chicago Press.

Knight, F. H. (1921). *Risk, uncertainty and profit*. Houghton Mifflin. https://www.loc.gov/item/21012860/

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71–87. https://doi.org/10.1287/orsc.2.1.71

McKenzie, D. (2017). Identifying and spurring high-growth entrepreneurship: Experimental evidence from a business plan competition. American Economic Review, 107(8), 2278–2307. https://doi.org/10.1257/aer.20151404

Ministry of Finance and Economic Planning. (2025, July 31). *Government of Rwanda integrates BDF into BRD to boost private sector financing* [Press release]. https://www.minecofin.gov.rw/fileadmin/user_upload/Minecofin/Publications/PRESS_RELEASES/BRD_and_BDF_Integration/Press_Release_31_July__25.pdf

Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 41*(6), 1029–1055. https://doi.org/10.1111/etap.12254

National Institute of Statistics of Rwanda. (2026). *Integrated business enterprise survey 2024*. https://statistics.gov.rw/statistical-publications/business-establishment-finance-trade/business-establishment-finance-trade/integrated-business-enterprise-survey-2024

OECD/Eurostat. (2018). *Oslo manual 2018: Guidelines for collecting, reporting and using data on innovation (4th ed.)*. OECD Publishing. https://doi.org/10.1787/9789264304604-en

Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers*. Wiley. https://www.wiley.com/en-gb/shop/general-introductory-business-management/business-model-generation-a-handbook-for-visionaries-game-changers-and-challengers-p-9780470876411

Penrose, E. (1995). *The theory of the growth of the firm (3rd ed.)*. Oxford University Press. https://doi.org/10.1093/0198289774.001.0001

Rwanda Development Board. (n.d.). *Business registration*. Office of the Registrar General. https://org.rdb.rw/business-registration/

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review, 26*(2), 243–263. https://doi.org/10.5465/amr.2001.4378020

Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle (R. Opie, Trans.)*. Harvard University Press. https://books.google.com/books/about/The_Theory_of_Economic_Development.html?id=niXf0AEACAAJ

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217–226. https://doi.org/10.5465/amr.2000.2791611

Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies, 23*(9), 1759–1769. https://doi.org/10.1080/09654313.2015.1061484

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science, 354*(6317), 1288–1292. https://doi.org/10.1126/science.aah5309

Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning, 43*(2–3), 172–194. https://doi.org/10.1016/j.lrp.2009.07.003

Welter, F. (2011). Contextualizing entrepreneurship—Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice, 35*(1), 165–184. https://doi.org/10.1111/j.1540-6520.2010.00427.x

World Bank. (2024). *Pathways to sustainable and inclusive growth in Rwanda: Country economic memorandum*. https://www.minecofin.gov.rw/fileadmin/user_upload/Minecofin/Publications/REPORTS/Chief_Economist/Rwanda_Country_Economic_Memorandum_Report/Rwanda_Country_Economic_Memorandum_1.pdf

Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management, 37*(4), 1019–1042. https://doi.org/10.1177/0149206311406265