CHAPTER 5

PRINCIPLES, THEORIES, AND FUNCTIONS OF MANAGEMENT

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ABSTRACT

Management is the practice of coordinating collective action when purposes are plural, knowledge is dispersed, resources are constrained, and outcomes remain uncertain. This chapter develops an integrated and critical account of managerial work, its intellectual traditions, and its recurrent functions of planning, organizing, leading, and controlling. Rather than treating the classical management cycle as a deterministic sequence, it interprets these functions as interdependent, revisable processes mediated by authority, judgment, organizational context, and accountability. Scientific, administrative, bureaucratic, human-relations, systems, contingency, behavioral, institutional, and contemporary evidence-based perspectives are assessed for their mechanisms and limitations. A transparent, purposive synthesis of published scholarship and authoritative secondary evidence anchors the account in Rwandan enterprise conditions, with comparative insight from an international manufacturer and experimental studies of management improvement. The chapter provides a management-cycle diagram, a responsibility-assignment matrix, a decision log, a management KPI tree, worked calculations, a resource-allocation scenario, and evaluative instruments. It shows why performance management cannot be reduced to numerical targets, why managerial discretion requires procedural justice, and why digitally mediated oversight needs explicit human responsibility. The principal argument is that management quality is a context-dependent capability to align commitments, information, tasks, relationships, corrective action, and legitimate stakeholder claims. The proposed integration is an analytical framework, not an independently validated causal model.

Keywords. *management functions; managerial work; management theory; planning; organizing; motivation; managerial control; bounded rationality; Rwanda; algorithmic management.*

LEARNING OUTCOMES AND CHAPTER ROADMAP

After completing this chapter, readers should be able to (LO1) distinguish management, leadership, governance, authority, and managerial accountability with reference to different enterprise forms; (LO2) critically compare classical, human-relations, systems, contingency, and behavioral management traditions, including their rival assumptions and empirical limits; (LO3) formulate a defensible planning-organizing-leading-controlling (POLC) process with measurable, ethically legitimate goals; (LO4) design delegation and coordination arrangements using decision rights and RACI responsibility assignments; (LO5) use decision logs, KPI trees, and feedback analysis to diagnose managerial problems without confusing association with causality; (LO6) compare a Rwandan family SME with documented international management practices while identifying contextual limits; (LO7) evaluate managerial judgment, power, and digital monitoring against fairness, wellbeing, accountability, and organizational outcomes; and (LO8) defend an integrated management recommendation using a worked numerical analysis, stakeholder constraints, and an explicit revision rule.

The argument begins with the nature of managerial work (Section 5.1) and the intellectual genealogy of management (5.2), then develops the four interrelated functions through planning, organizing, leading, and controlling (5.3–5.6). Decision-making and power qualify the exercise of each function (5.7–5.8). Contextual differences, cross-functional coordination, technologies, and outcome evaluation follow (5.9–5.12). An integrative Rwanda–international comparison, theoretical synthesis, glossary, assessment package, and references complete the chapter. Competitive strategy is treated principally in Chapter 6, formal organization design in Chapter 7, leadership and corporate governance in Chapter 8, specialist HR management in Chapter 9, and employment relations in Chapter 11; those chapters are supported but not reproduced here.

5.0 INTRODUCTION: MANAGEMENT AS COORDINATED JUDGMENT

A growing Kigali food-distribution enterprise promises a hospital and several shops reliable weekly deliveries. Sales staff confirm orders, a purchaser secures raw materials, a delivery coordinator allocates vehicles, a bookkeeper manages cash, and a founder approves expenditures. When fuel costs rise and a supplier fails, each person can execute their assigned task competently while the enterprise misses the customer's promised date. The founder can demand more effort, but effort cannot resolve incompatible priorities, fragmented information, limited cash, or unclear authority. The business challenge is therefore an integrative one: who decides what the organization will accomplish, who has authority to commit resources, how conflicts among tasks are resolved, and how the enterprise learns when its decisions fail. This case is a constructed educational scenario, not a report about an identified Rwandan company.

Management refers to the purposeful, accountable coordination of people, resources, activities, information, and relationships to pursue organizational objectives under constraints. Its distinctive object is organized action rather than any one specialist task. It does not follow that managers alone create value: employees, owners, customers, suppliers, public institutions, and communities may provide essential capabilities and direction. Nor does the term imply that every organizational purpose is legitimate. A manager who efficiently meets an unsafe production quota or achieves a target by withholding earned wages has not satisfied a defensible conception of managerial effectiveness, even if a conventional dashboard reports success. Organizational objectives require tests of feasibility, legality, proportionality, truthfulness, and justification to affected parties (Freeman, 1984; Simon, 1947).

The planning-organizing-leading-controlling sequence offers a valuable pedagogical taxonomy, but it should not be mistaken for an empirically discovered law of how managers spend time. Mintzberg (1975) observed fragmented, reactive, and relationship-intensive managerial work; Simon (1947) described organizations as systems of decisions shaped by limited knowledge. Together they warn against treating the diagram of a management cycle as an accurate daily timetable. Practical management involves simultaneous interpretation of signals, negotiated commitments, temporal priorities, interruptions, and corrective moves. Planning often occurs during control reviews; organizing changes when employees disclose a problem; leading can alter the

information available for the next planning decision. The analytical value of the four functions comes from the questions they illuminate, not their presumed chronological isolation.

5.0.1 Scholarly approach and epistemic limitations

This chapter employs a critical, purposive review of published theoretical scholarship, peer-reviewed empirical research, primary organizational publications, and official secondary statistics. Foundational works were selected to represent contrasting conceptions of authority, production efficiency, administration, informal organization, bounded rationality, organizational systems, contingencies, goal pursuit, performance control, and workplace justice. Targeted source verification undertaken for the chapter's 24 October 2026 evidence cut-off considered original book and journal records, official National Institute of Statistics of Rwanda (NISR) IBES 2024 materials, the Toyota historical account of the Toyota Way, and NIST's artificial-intelligence governance framework. Search concepts included 'scientific management Taylor', 'Fayol functions', 'managerial roles Mintzberg', 'management practices India randomized experiment', 'business practices small firms developing countries', 'Rwanda IBES 2024 informality', 'goal-setting theory', 'psychological safety teams', and 'generative AI at work'. The approach is a targeted, non-systematic scholarly synthesis rather than an exhaustive systematic review; it reports no invented database screening counts, original interviews, audits, regressions, or experimental findings.

Three evidence categories remain distinct throughout. Established theoretical texts articulate mechanisms or normative assumptions but do not independently establish contemporary causal effects. Peer-reviewed field studies supply empirical estimates for their investigated organizations, populations, periods, and treatments. Institutional and corporate reports establish documented claims or reported practices but require critical treatment of measurement coverage and self-reporting. Numerical enterprise illustrations are hypothetical and include their own assumptions. Comparative transfer is therefore evaluated rather than presumed, particularly where large manufacturers and small African enterprises differ in financing, skills, digital infrastructure, regulatory formalization, and managerial specialization (Bloom et al., 2013; McKenzie & Woodruff, 2017; NISR, 2026).

5.0.2 A philosophical conception of effective management

Three philosophical questions underlie managerial technique. The epistemic question asks what managers can know about causes, prospects, employee conduct, and measures under uncertainty; Simon's bounded rationality and contemporary evidence-based practice place limits on certainty (Simon, 1947; Rousseau, 2006). The normative question asks whose purposes should govern organizational action and how conflicts among owners, employees, customers, creditors, and communities ought to be addressed. The institutional question asks which decisions legitimately belong to a supervisor, board, professional, cooperative membership, regulator, or affected worker. These dimensions are related but not interchangeable. A target can be measurable without being desirable; a lawful directive can be strategically foolish; consultation can improve legitimacy without guaranteeing technical correctness.

The chapter advances a context-qualified integrative claim: the managerial contribution is not reducible to issuing orders, setting targets, or possessing expertise; it consists in sustaining the fit among goals, task interdependencies, decision rights, information reliability, incentives, revision capacity, and legitimate stakeholder claims. These are hypothesized relationships open to empirical assessment, not a new universally validated managerial index. In this sense management is both instrumental and fiduciary: managers exercise entrusted discretion whose results and procedures require explanation to others.

5.1 DEFINING MANAGEMENT AND MANAGERIAL WORK

5.1.1 Management, leadership, governance, and administration

Management is commonly associated with achieving collective objectives through planning, organizing, directing, coordinating, and control, as codified in differing forms in administrative theory (Fayol, 1949). Leadership concerns processes of influence through which people understand and commit to purposes; management encompasses leadership but also decisions about systems, staffing, documentation, budgets, controls, and exception resolution. Governance concerns the allocation and oversight of authority, organizational purpose, accountability, and obligations at the level of owners, boards, members, trustees, or public institutions. Administration often denotes the maintenance and implementation of established rules, though its usage varies across organizations. Distinguishing these concepts helps prevent a manager from claiming strategic or legal powers that belong elsewhere, while acknowledging that one person may perform multiple roles in a microenterprise.

A manager may coordinate a team without possessing absolute command. A hospital administrator relies on clinicians whose professional obligations can override an unsafe directive; a cooperative manager must work within member-approved rules; a founder managing a family firm may be accountable to lenders and regulators even when no separate human-resources department exists. Authority is therefore jurisdictional and conditional rather than an unlimited personal property. Governance systems establish the formal ambit of managerial discretion, but day-to-day effectiveness also depends on expertise, relationships, credibility, and access to information (Weber, 1978; Barnard, 1938). When authority outstrips information, centralized decision-making becomes a bottleneck; when discretion is delegated without clarity, accountability becomes evasive.

5.1.2 Managerial levels, roles, and time allocation

Top managers translate organizational mandates into priorities, choose broad resource commitments, manage major interfaces, and answer to governing bodies. Middle managers reconcile multiple specialist units, allocate budgets and personnel within delegated limits, and interpret cross-cutting decisions into operational arrangements. First-line supervisors ensure the reliability and safety of immediate work while handling daily exceptions and worker support. The distinctions are functional, not a necessary three-tier hierarchy: a founder may undertake all three levels, whereas a multinational separates them across geography and products. Matrix teams, project work, and professional organizations also distribute management through temporary or shared responsibilities.

Mintzberg's (1975) interpersonal, informational, and decisional roles complicate the image of the manager as a solitary planner. Managers represent the organization, connect otherwise separated actors, receive and transmit information, resolve disturbances, negotiate, allocate resources, and cultivate commitments. The importance of the roles varies with the environment: an SME proprietor may spend much of the day negotiating supplier terms and settling delivery disputes, while a large hospital manager may spend more time reconciling professional standards and staffing constraints. What counts as skillful time use should therefore be appraised against actual interdependencies and role demands rather than adherence to a generic diary of 'productive activities'.

5.1.3 Skills, judgment, and accountability

Managerial capability combines technical literacy, relational and communicative skill, conceptual or systems reasoning, ethical judgment, and the ability to learn from failed assumptions. Technical competence without relational competence can produce correct procedures that employees neither understand nor trust; warmth without analytical judgment can preserve morale while a firm becomes insolvent. Managers need to know when to consult specialists and when not to substitute their own confidence for legal, clinical, engineering, or

accounting evidence. A manager is responsible not only for personally executed acts but for foreseeable consequences of delegated decisions within the authority reasonably available to them.

An accountability map should distinguish who recommends, who authorizes, who executes, who checks, and who is entitled to challenge a decision. Responsibility can be delegated as work; legal and organizational accountability may not transfer simply through an internal note. For example, a purchasing officer may choose among approved suppliers, but the budget owner must still justify whether purchases were necessary and lawful. Adequate documentation is proportional to exposure: an emergency scheduling adjustment needs a shorter trail than a multiyear outsourcing contract. The central test is whether another competent reviewer could reconstruct the information, authority, alternatives, and rationale at the time, without requiring the outcome to have been successful.

Managerial competence is also epistemically relational: a decision maker often depends on information held by employees, clients, technicians, suppliers and public institutions who do not share the same objectives or incentives. A manager can therefore be accountable for a choice without personally possessing every fact necessary to make it. The defensible response is to design channels through which relevant knowledge can reach an authorized decision before commitments become irreversible, and to expose assumptions to structured criticism. This principle makes organized disagreement and evidence quality central to management rather than peripheral matters of interpersonal style. A technically trained supervisor may still fail when the organization discourages contradiction; conversely, a participative meeting may be ineffective if no person can authorize a timely corrective action (Barnard, 1938; Simon, 1947).

5.2 HISTORICAL SCHOOLS OF MANAGEMENT

5.2.1 Scientific management: measurement, specialization, and its moral boundary

Frederick W. Taylor's scientific management emerged from industrial concerns about inconsistent work methods, productivity, worker effort, and coordination. It advocated systematic observation of tasks, separation of planning from execution, standardization of methods, selection and training, and incentives intended to align work with measured output (Taylor, 1911). Its lasting contribution is to make operating routines an object of reasoned inquiry rather than unexamined custom. Time studies, process mapping, explicit work instructions, and quality checks can reveal waste and variation. These practices are particularly useful where tasks are recurrent, technically stable, and measurable without sacrificing quality.

Taylor's framework is weaker as a comprehensive theory of people or authority. It can understate employee knowledge, informal adaptation, bargaining power, fatigue, occupational risk, and variation in demand. Prescribing a 'one best way' from a short observational sample ignores the possibility that workers possess dispersed knowledge of exceptions and unsafe conditions. In digital workplaces, a software system that counts keystrokes or completed tickets may re-create Taylorist control without demonstrating customer value or psychological wellbeing. The appropriate lesson is not that measurement is inherently dehumanizing, but that task measurement must be subordinated to valid outcomes and worker rights. The efficiency of an isolated motion cannot decide whether the activity should occur or whose burdens it imposes.

5.2.2 Administrative, bureaucratic, and integrative traditions

Henri Fayol's administrative approach offered a broad view of management as forecasting and planning, organizing, commanding, coordinating, and controlling across enterprise activities (Fayol, 1949). Principles associated with unity of command, division of work, authority, discipline, equity, and initiative helped establish an enterprise-wide vocabulary. Their continuing importance lies in the problem of coordinated accountability rather than any claim that every principle always has one optimal setting. A rigid unity-of-command rule, for instance, may simplify safety escalation in an emergency but obstruct functional expertise in a multidisciplinary project.

Max Weber's analysis of bureaucracy examined rational-legal authority, offices defined by rules and competencies, documentation, procedural continuity, and recruitment through qualifications (Weber, 1978). Bureaucracy can restrain arbitrary favoritism and allow decisions to survive staff turnover, especially in public services or regulated sectors. It can also become slow and self-protective, with employees mistaking rule compliance for adequate service. The challenge is to distinguish safeguards that sustain fairness from procedures whose burdens are no longer justified. Neither a paperless dashboard nor flat organizational chart automatically removes bureaucracy: opaque algorithms may produce procedural rigidity with fewer avenues of appeal.

Mary Parker Follett anticipated a more relational understanding of authority and conflict. Her concept of integration treated disagreement as an opportunity to seek a jointly workable arrangement rather than simply impose one party's will or split losses mechanically (Follett, 1941). Chester Barnard (1938) likewise emphasized cooperation, communication, common purpose, and participants' willingness to accept authority. These perspectives counter the idea that hierarchy alone creates coordinated action. Yet collaboration can be naïve when power is strongly unequal or a safety requirement is nonnegotiable. Responsible management must know when negotiation is useful, when formal procedure protects the weak, and when clear authorized direction is required.

5.2.3 Human relations, motivation, and the problem of interpretation

Human-relations scholarship drew attention to social groups, attention, informal norms, belonging, and supervisory relationships, challenging purely mechanical accounts of work. The Hawthorne research associated with Mayo (1933) and Roethlisberger and Dickson (1939) became influential, but its interpretations have been disputed, and the familiar claim that attention universally raises productivity goes beyond a defensible reading of complex observational studies. The important enduring proposition is narrower: employees interpret tasks through social relationships and expectations, so identical formal rules may yield different behavior across work groups.

Subsequent research provides more testable mechanisms. Hackman and Oldham (1976) related job characteristics to meaningfulness, responsibility, and knowledge of results; Locke and Latham (2002) established a substantial research programme on specific challenging goals under relevant conditions; Ryan and Deci (2000) emphasized autonomy, competence, and relatedness in self-determination theory. Their prescriptions are not interchangeable. More challenging goals can increase focused effort but also become harmful when tasks are uncertain, resources absent, or incentives encourage misreporting. Autonomy can strengthen ownership of decisions but overwhelm staff without capability and supportive boundaries. The managerial task is to align work design and motivation with workers' legitimate needs, organizational constraints, and valid measures.

5.2.4 Systems, contingency, and behavioral approaches

Open-systems theory treats enterprises as interacting subsystems dependent on resources, information, exchanges, and environmental feedback (Katz & Kahn, 1966). An apparently local productivity improvement can move congestion downstream, while a procurement policy intended to reduce unit prices can increase inventory failure, customer complaints, and emergency financing. The contribution is not that 'everything is connected', but that a management diagnosis must specify which dependency, delay, feedback, or constraint could plausibly explain an outcome. Systems diagrams are only useful when they identify units, mechanisms, and temporal order.

Contingency theorists challenged a universal best structure. Burns and Stalker (1961) distinguished more mechanistic from more organic arrangements in relation to innovation and uncertainty; Woodward (1965) analyzed connections between technology and administrative structures; Lawrence and Lorsch (1967) examined how differentiated units integrate under distinct environmental demands. Their findings support contextual fit, but they do not imply a rule that every volatile environment requires informality or that every repetitive operation benefits from strict hierarchy. Technology, professional authority, crisis exposure,

organizational history, and social norms may create countervailing needs. The best question is which form resolves the focal coordination problem with acceptable cost and accountability.

Behavioral decision theory provides a deeper critique of administrative rationalism. Simon (1947) treated decisions as bounded by available information, cognitive capacity, time, and organizational premises; March (1991) demonstrated a tension between exploiting known routines and exploring unfamiliar possibilities. This means organizations do not become fully rational by accumulating more data. A larger dashboard can multiply salient anomalies, encourage motivated inference, and delay choices unless managers clarify decision rights and evidence thresholds. Behavioral management complements rather than abolishes planning: the manager must use simplifying procedures while remaining alert to the biases and unknowns those procedures create.

TABLE 5.1 | Management traditions: mechanisms, explanatory value, and limits

Tradition	Central mechanism	Best application	Principal qualification
Scientific management (Taylor)	Work observation, standardization and measured task performance	Stable, recurrent operations with demonstrable process variation	Risk of ignoring dignity, knowledge, fatigue, quality and context
Administrative / bureaucratic (Fayol; Weber)	Defined authority, procedures, coordination and continuity	Traceable approval, regulated processes and role clarity	Formal rules can become rigid or conceal political power
Human relations / motivation	Social relationships, goals, needs and work design	Communication, supervision, role motivation and learning	Do not overgeneralize from specific workers or studies
Systems / contingency	Dependence among units; organizational fit to environment	Cross-functional bottlenecks, differentiated units and change	Model can be vague without explicit links and boundary conditions
Behavioral / evidence-informed	Bounded cognition, routines, bias and critical evidence use	Choices under uncertainty and consequential trade-offs	Decision procedures remain limited by data and normative choices

Note. Author's comparative synthesis of Taylor (1911), Fayol (1949), Weber (1978), Hackman and Oldham (1976), Katz and Kahn (1966), Lawrence and Lorsch (1967), Simon (1947), and Rousseau (2006). No empirical ranking is implied.

5.2.5 Evidence about management practices and limits to transfer

Observational international comparisons generally find large differences in measurable management practices among firms, but these are not automatically causal because management, workforce skills, competitive conditions, ownership, and performance are jointly determined (Bloom et al., 2012). A stronger design comes from Bloom et al.'s (2013) field experiment in Indian textile plants: consulting support for selected management practices increased productivity by approximately 17% in the first year among the treated plants. The study directly supports the proposition that a specified intervention improved performance in that setting, not the prediction that a Rwandan micro-retailer will experience an equivalent increase after adopting a scorecard.

McKenzie and Woodruff (2017) developed measures of marketing, stockkeeping, recordkeeping, and financial planning practices in microenterprises in several developing economies, including Ghana and Kenya. Better practice scores were associated with business outcomes, and panel evidence linked scores to later survival and sales growth. Those findings make basic management routines highly relevant to African SMEs, but the presence of selective adoption and heterogeneous constraints limits causal interpretation. Where informal enterprises lack access to reliable suppliers, affordable transport, or trained workers, recording inventory more accurately may reveal rather than eliminate the binding problem. A management intervention should therefore be evaluated as a bundle of complementarity, adaptation, implementation, and learning, not a transferable miracle technique.

The empirical literature also counsels against using the experience of large manufacturing plants as a universal proxy for managerial learning. Bruhn et al. (2018), in a randomized study involving 432 Mexican small and medium-sized enterprises, examined access to a year of consulting support and identified improvements in selected business outcomes, with substantial variation in which practices changed. The intervention concerned more than distributing a checklist; it involved sustained assistance, organizational diagnosis and adaptation. Its results cannot be transported directly into the Rwandan economy without considering baseline practice, external market access, manager time, financing constraints and the cost of locally available advisory services. Taken together, the India and Mexico experiments and the multi-country microenterprise evidence support the narrower claim that some managerial routines are productive under identifiable conditions, not a universal estimate of the economic return to management.

A further historical and philosophical limitation concerns whose work becomes visible in managerial accounts. Classical narratives often privilege the salaried administrator and factory supervisor while overlooking unpaid family labour, informal traders, care obligations, household production and the people affected by decisions but excluded from formal authority. In an African family enterprise, the distinction between firm and household may be administratively blurred even though the economic consequences of time allocation and financial risk are real. The correct response is not to discard formal theory but to specify its unit of analysis, acknowledge power and institutional context, and test whether apparently efficient arrangements shift costs onto workers, relatives or communities. The more general purpose of the historical review is to retain rival explanations that can be confronted with evidence, rather than organize management history into a narrative of inevitable progress.

5.3 PLANNING AND GOAL-SETTING

5.3.1 From purpose to operational commitments

Planning specifies desired outcomes, assumptions about the future, available resources, responsible agents, alternatives, and conditions for revision. Drucker (1954) made the translation of organizational purpose into managerial objectives a central theme of modern management, though the value of any objective depends on how it is chosen and evaluated. Its products range from a same-day dispatch schedule to an annual staffing and cash plan. Purpose answers why an enterprise exists and what claims it must respect; objectives specify desired results; targets quantify or otherwise operationalize them; action plans identify resources, sequencing, and accountable owners. Effective planning is not synonymous with producing an elaborate document. A one-page rolling plan with valid indicators and explicit contingencies may outperform an ambitious annual presentation that nobody updates. Conversely, where capital is irreversible or risk severe, a brief informal agreement is inadequate.

Planning horizons should reflect reversibility and information lead times. Near-term operational plans manage orders, cash, materials, staffing, and service commitments; medium-term tactical plans coordinate capacities and budgets; longer-term strategic commitments affect market position and the business model, which is developed fully in Chapter 6. The same enterprise may rationally plan vehicle routing daily, procurement monthly, and asset replacement over several years. Plans must distinguish binding contracts from managerial aspirations. A planned sales increase does not create warehouse capacity; a forecast is not a promise from customers; an internal target does not override safety or regulatory duties.

5.3.2 Goal quality, SMART, and competing objectives

The SMART heuristic encourages goals that are specific, measurable, achievable or appropriately ambitious, relevant, and time-bound. Its value is diagnostic: vague instructions such as 'improve delivery' should become an explicit target, for example 'increase the share of confirmed orders delivered by the promised date from the audited baseline to an agreed threshold by the end of the quarter'. The target must define denominators, exclusions, time stamps, and quality conditions. A goal can nevertheless satisfy all five letters and still be ethically perverse or strategically mistaken. Setting a quota of credit approvals without bad-debt safeguards

risks transferring today's sales into tomorrow's defaults. Locke and Latham (2002) identify goal clarity and challenge as useful, but performance is conditioned by feedback, commitment, task complexity, and enabling resources.

Managers encounter multi-objective problems: reliability, cost, liquidity, worker health, inclusion, customer access, and environmental effects can compete. A defensible plan records non-negotiable constraints first, then evaluates trade-offs among feasible options. A simple weighted score may help structure discussion, but weights are value judgments, not objective facts. If an organization gives an unsafe process a high financial weight and a low safety weight, the calculation will not rescue the decision's legitimacy. For critical rights, mandatory law, and irreversible harm, threshold constraints are more appropriate than tradeable points. Sensitivity analysis must examine whether the recommended option changes under reasonable alternative priorities.

5.3.3 Planning under uncertainty and adaptive commitment

Forecasts differ from scenarios and contingency plans. A forecast projects an expected path under assumptions; scenarios explore contrasting plausible environments without assigning unsupported probabilities; contingency plans state which action will follow a particular trigger. For a Rwandan distributor exposed to fuel and imported packaging costs, a feasible plan may carry a baseline supply schedule, a fuel-cost trigger requiring price and routing review, an alternate qualified supplier, and a minimum cash buffer. The existence of a contingency does not prove the shock will occur. Planning under uncertainty improves when managers can identify leading signals, reversibility, option value, and responsibility for monitoring.

Rolling forecasts replace obsolete estimates with updated assumptions but should not silently rewrite historical targets used for accountability. Managers need two ledgers: original commitments and present best estimates. When the two differ, a variance requires explanation, not concealment. A cautious management process distinguishes assumption errors from execution failures, documents the circumstances under which targets may be revised, and avoids punishing truthful early warnings. The logic builds on the evidence design of Chapter 4 and the macroeconomic mechanisms of Chapter 2, while leaving capital budgeting techniques for Chapter 24.

5.3.4 Worked planning example: contribution, liquidity, and capacity

Assume a hypothetical Kigali distributor expects to deliver 1,000 cases in a month at RWF 20,000 each. Variable cost is RWF 13,000 per case and monthly avoidable fixed operating costs are RWF 4,000,000. Under these teaching assumptions, contribution per case is RWF 7,000, total contribution is RWF 7,000,000, and operating surplus before financing, tax, depreciation, and extraordinary items is RWF 3,000,000. The accounting break-even quantity in the simple linear model is fixed cost divided by unit contribution, or 4,000,000/7,000 ≈ 572 cases, rounded up. If packaging and fuel raise variable cost to RWF 15,000, contribution falls to RWF 5,000, break-even quantity rises to 800 cases, and the 1,000-case operating surplus falls to RWF 1,000,000. No Rwandan market statistic is being inferred from these invented inputs.

TABLE 5.2 | Illustrative monthly operating sensitivity for a Kigali distributor

Assumption / output	Base case	Cost shock A	Cost shock B
Selling price per case	RWF 20,000	RWF 20,000	RWF 20,000
Monthly cases	1,000	1,000	1,000
Variable cost per case	RWF 13,000	RWF 14,000	RWF 15,000
Contribution per case	RWF 7,000	RWF 6,000	RWF 5,000
Total contribution	RWF 7,000,000	RWF 6,000,000	RWF 5,000,000

Assumption / output	Base case	Cost shock A	Cost shock B
Avoidable fixed costs	RWF 4,000,000	RWF 4,000,000	RWF 4,000,000
Operating surplus	RWF 3,000,000	RWF 2,000,000	RWF 1,000,000
Break-even cases (rounded up)	572	667	800

Note. All figures are invented teaching assumptions; break-even cases = ceiling(fixed cost ÷ contribution per case). Financing, taxes, depreciation, working-capital timing and changes in customer demand are excluded.

The sensitivity example illustrates two managerial constraints that a profit total omits. First, suppose only 700 cases can be sourced reliably; even at the original unit contribution, the enterprise earns RWF 4.9 million contribution and RWF 0.9 million surplus, assuming full sale and unchanged fixed costs. Second, an apparent surplus does not guarantee the liquidity needed to pay inputs before customers settle invoices. Planning must separately examine payment dates, collection risk, inventory availability, worker conditions, and the opportunity cost of vehicle capacity. Where prices, volumes, and costs are correlated, changing one input at a time can misrepresent aggregate risk; a more advanced assessment uses coherent scenarios and transparent dependence assumptions.

5.4 ORGANIZING RESOURCES AND RESPONSIBILITIES

5.4.1 Division of work, departmentalization, and coordination costs

Organizing establishes how tasks, resources, information, authority, and relationships are arranged to execute plans. Grouping activities by function can deepen specialization and scale expertise, but it also creates boundaries across which customer promises must travel. Product, geography, client segment, process, project, or hybrid arrangements may reduce some boundary costs while introducing other coordination demands. A distributor might separate procurement, dispatch, and accounts to create traceable controls, while a five-person enterprise may assign the same person multiple roles with compensating review. No department chart alone proves that responsibilities are executed or that a handoff is reliable.

Specialization creates the coordination problem that management must solve. Lawrence and Lorsch (1967) showed that differentiated subunits can develop distinct priorities and time horizons, while integration determines whether they can act together. Marketing may prioritize customer responsiveness, operations stable throughput, finance liquidity, and compliance lawful risk exposure. Each can be rational within its own mandate and collectively inconsistent. Organizing therefore includes explicit service interfaces, common definitions, escalation pathways, and shared planning cadence, not just assigning a reporting line. The appropriate design depends on transaction volume, errors, professional requirements, employee capability, and the consequences of failure.

Galbraith (1974) explained organizational design in terms of the information-processing demands generated by uncertainty and interdependence. When operations become more complex, organizations can reduce the need to process information through clearer rules, buffers, modular tasks and better task design, or increase their capacity to process it through lateral relationships, dedicated integrators and suitable information systems. These alternatives are not costless. Buffers tie up capital, additional hierarchy delays messages, cross-functional meetings consume time, and technology standardizes errors as readily as it standardizes valid data. The manager must therefore ask what information is required, by whom, how rapidly, and with what consequence if it is late. The relevant measure of organizational quality is not whether every employee has a detailed job description but whether an ordinary customer commitment can travel through necessary handoffs without avoidable uncertainty.

Delegation is especially consequential when informal organizations grow. Initially, direct personal supervision may be economical because the founder knows staff and transactions; as volume expands, the same arrangement can become a queue in which decisions wait for a single approver. This creates a threshold

problem rather than a timeless preference for centralization or decentralization. A manager should identify the classes of decisions that are reversible and low-risk, transfer those to trained personnel with documented limits, and retain a clear route for escalating exceptional obligations. Periodic sampling of delegated decisions can preserve accountability without requiring preapproval of every transaction. The design must be reassessed after changes in legal obligations, employee skill, financing arrangements or product risk.

5.4.2 Delegation, decision rights, and span of control

Delegation assigns specified work and discretion to others while defining limits, required resources, review frequency, and escalation triggers. A sound delegation instruction states the decision to be made, the objectives and constraints, the value or risk threshold, the documentation required, and the circumstances in which authorization must return to a superior. Delegating a procurement decision without a purchase-value threshold can expose the firm to debt; retaining every purchase for owner approval can delay operations and raise personal bottleneck risk. The aim is neither maximum decentralization nor permanent central control, but authority aligned to task knowledge and consequence.

Span of control concerns the number and complexity of direct reporting relationships. A numerical ratio is insufficient because a supervisor of stable, well-documented routine tasks faces different demands from one coordinating newly trained staff, exceptional projects, or geographically separated fieldwork. As span grows, managers may create new layers, automate reporting, narrow decisions, or build mutual coordination among employees. Each response has costs: layers slow communication, automatic monitoring may obscure exceptions, and informal self-coordination may leave responsibility ambiguous. Span should be evaluated against communication load, decision complexity, capability, and the expected harm of delayed action.

5.4.3 Resource constraints, segregation, and continuity

An organization is not adequately designed if its formal duties exceed the resources made available to discharge them. A manager charged with assuring timely delivery needs reliable access to inventory records and routing capacity; a compliance officer cannot enforce controls without authority to escalate violations; a finance controller cannot independently verify transactions when the same person initiates, approves, pays, and reconciles every transfer. In very small firms complete segregation is often impracticable, but alternative controls such as dual approval for large payments, periodic external review, numbered documentation, and restricted banking privileges may reduce exposure. The control design must be proportionate rather than copied mechanically from a multinational.

Organizing also addresses continuity through substitutes, documentation, succession, and resilience. A founder who alone knows supplier contacts, owns digital passwords, and approves every cash movement creates key-person dependency. Cross-training and protected access procedures help preserve continuity without uncontrolled information sharing. A practical organizing review asks which activities would stop if a critical person or platform disappeared for one week. This links management to the risk and resilience analysis developed in Chapter 32 without replacing that specialist treatment.

5.5 LEADING AND MOTIVATING EXECUTION

5.5.1 Direction and interpersonal influence in ordinary management

Leading within the managerial function means making collective purpose intelligible, securing sufficiently informed commitment, resolving operational obstacles, and helping people carry out responsibilities without treating them merely as instruments. A manager translates plans into decisions that employees understand, which entails explanation of intended outcomes, legitimate constraints, available support, quality standards, and the route for raising problems. In a transport operation a supervisor may need to explain why punctuality matters while making clear that no deadline authorizes unsafe driving. A directive is not effective simply

because it is obeyed: employees may comply with its wording while concealing emerging risks, losing confidence, or diverting effort from unmeasured service quality.

Managerial influence can arise from formal role, expertise, fairness, personal credibility, access to resources, and reciprocal trust. Because influence varies, a supervisor should distinguish matters requiring authoritative instruction from those benefiting from participative design. The Vroom and Yetton (1973) decision model demonstrated that the extent of participation should be assessed against the problem rather than prescribed as an unvarying democratic ideal. Consultation can improve information and acceptance, yet it may be infeasible when an emergency requires prompt action under settled technical standards. Effective participation is meaningful when participants have relevant knowledge, can speak safely, and understand how their views affect the decision.

5.5.2 Motivation as an interaction between work and context

Motivation is not an employee trait that managers can simply inject through praise, money, or surveillance. It concerns the direction, intensity, and persistence of effort in relation to opportunities, capabilities, and organizational conditions. Goal-setting theory predicts that specific and suitably challenging goals can improve performance when people accept them, possess requisite resources, and receive valid feedback (Locke & Latham, 2002). Self-determination theory distinguishes more autonomous from controlled forms of motivation, emphasizing competence, autonomy, and relatedness (Ryan & Deci, 2000). Job-characteristics theory connects meaningfulness, experienced responsibility, and knowledge of results to the design of work (Hackman & Oldham, 1976). These mechanisms provide a richer diagnosis than a one-dimensional 'highly motivated workforce' assertion.

Material incentives matter, especially where wages are low or unpredictable, but incentive design is a constrained mechanism. Paying drivers only by number of completed trips may increase dangerous speed, underreporting of damage, and selective acceptance of easy deliveries. Rewarding service resolution solely by tickets closed may encourage agents to close unresolved cases. When employees see procedural inequity, the same bonus may signal disrespect instead of recognition. Managers should therefore distinguish basic compensation fairness and safe working conditions from discretionary motivators, combine objective and reviewable criteria with qualitative evidence, and evaluate behavior that might be displaced by a reward. Staff preferences and household obligations vary; assumptions about an entire national or generational workforce should not substitute for credible observation.

Motivational analysis must distinguish ability, opportunity, expectancy and valued rewards. A worker may reasonably exert less effort when the task cannot be completed with available equipment, the supervisor changes standards after the fact, or performance has little credible relationship to the promised reward. Conversely, larger bonuses may displace intrinsic commitment to service when narrow incentives communicate that unmeasured quality does not matter. The relevant managerial intervention may therefore be repairing tools, simplifying a confusing workflow, providing specific developmental feedback, or correcting inequitable allocation of work rather than increasing a payment. A credible diagnosis should examine feasible alternatives and allow workers to contest inaccurate performance evidence (Ryan & Deci, 2000; Colquitt, 2001).

5.5.3 Communication, psychological safety, and supervision

Good communication requires both transmission and a credible return channel. Top-down announcements can explain priorities but cannot establish that local conditions match management's assumptions. A safe escalation process allows a worker to report missing protective equipment, a quality defect, or a faulty KPI without disproportionate retaliation. Edmondson's (1999) multimethod study of work teams found psychological safety associated with learning behavior, within its organizational and sampling context. The conclusion is not that agreeable workplaces outperform all demanding ones. Rather, the ability to surface errors and questions can be a productive component of coordination, particularly where knowledge and risk are dispersed.

Responsible supervision balances care and performance standards. It explains deficiencies specifically, permits correction, documents material decisions, and applies proportionate sanctions through authorized procedures. Persistent underperformance may require training, redesign of tasks, clearer resources, adjusted staffing, or formal action; a supervisor should not presume that every missed target signifies laziness. Conversely, fairness does not mean excusing deliberate misconduct that endangers customers or colleagues. A defensible response distinguishes capability from opportunity and intent, assesses the quality of the original instruction, allows the employee to explain relevant facts, and remains consistent with lawful employment rights. Detailed HR procedures are developed in Chapters 9–11.

5.5.4 Conflict, negotiation, and culturally situated judgment

Conflicts arise because functions, people, and stakeholders operate under different goals and information. A procurement manager may favor a low-cost supplier; a quality officer may reject its documentation; a sales supervisor may fear losing a customer. Resolving such disputes by rank alone may suppress important evidence, while perpetual consensus can produce decision paralysis. Follett's (1941) integrative approach invites managers to seek solutions that alter the underlying constraint: a staged order, supplier audit, alternative product specification, or temporarily revised delivery promise may address several interests better than simply splitting an arbitrary budget difference.

In Rwanda and other African settings, language choice, respect for seniority, family relationships, formal titles, and community obligations can influence how disagreement is expressed, but their significance varies within and across organizations. Cultural sensitivity should therefore be treated as a hypothesis to investigate, not a stereotype. Managers need channels for respectful dissent even when hierarchical conventions discourage direct public contradiction. A confidential exception register, bilingual or multilingual work instructions where appropriate, and explicit nonretaliation measures can help; their effectiveness must be monitored rather than inferred from written policy alone.

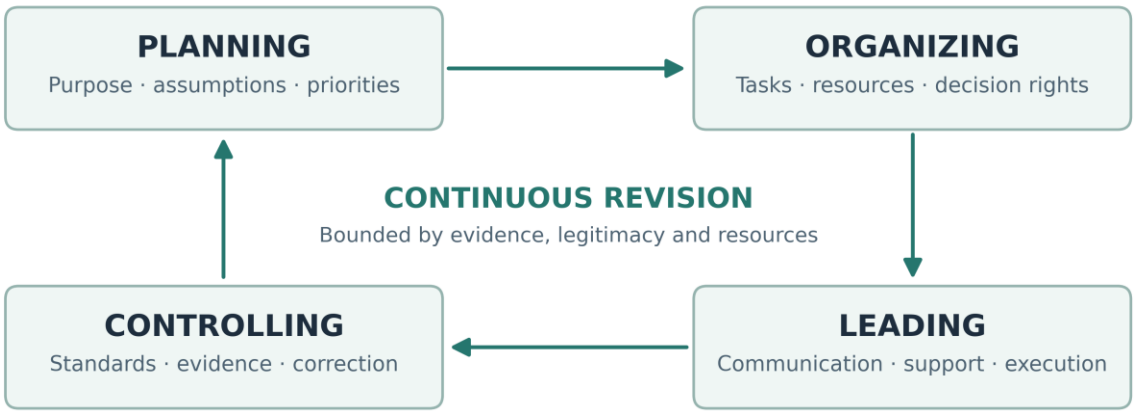
5.6 MONITORING AND CONTROL

5.6.1 The control loop: standard, observation, diagnosis, correction

Managerial control is the process of establishing relevant standards, observing actual performance, investigating material discrepancies, selecting warranted corrective action, and reviewing the results. It is not synonymous with personal surveillance or financial policing. Feedforward controls prevent foreseeable problems before execution, concurrent controls monitor tasks during execution, and feedback controls examine realized outcomes afterward. A purchaser may prequalify suppliers (feedforward), verify receipt against specification (concurrent), and investigate quarterly defects (feedback). The choice depends on whether a problem is detectable before harm occurs and whether intervention is still feasible.

A sound control loop separates measurement from diagnosis. If on-time deliveries fall from 92% to 84%, the eight-percentage-point change is descriptive. It does not establish whether the cause is driver effort, breakdowns, traffic patterns, supplier delay, incorrect promise dates, or a change in the order mix. Control requires tracing inputs and handoffs rather than assuming that the measured worker caused the result. Deming (1986) argued that management must improve underlying systems and understand variation instead of treating quotas as adequate substitutes for leadership. The implication is especially important where frontline workers bear the consequences of earlier planning decisions.

FIGURE 5.1 | The management functions as an iterative coordination and learning cycle



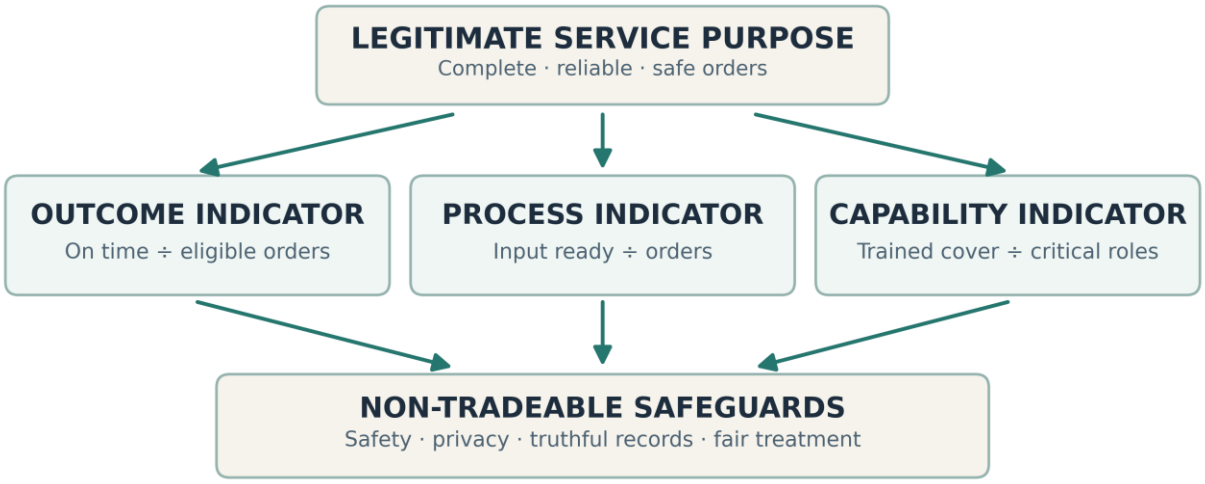
Note. Original analytical visualization derived from administrative, systems and behavioral management traditions; the arrows denote revisable relationships, not a validated causal sequence.

5.6.2 Designing a KPI system with valid definitions

A key performance indicator (KPI) is a defined measure selected to inform decisions about a consequential objective. A valid KPI requires a construct, numerator and denominator if applicable, time window, population, data source, owner, threshold, disaggregation rule, and response protocol. 'Order fulfilment' can mean orders shipped, quantities shipped, promised dates met, invoices collected, or customer acceptance. Counting deliveries without specifying full versus partial orders can reward precisely the practice a customer dislikes. Indicators should be consequential, controllable enough to inform action, and not so narrow that they ignore material externalities.

Outcome indicators track realized effects, such as valid orders delivered by the promised date; process indicators track mechanisms, such as supplier delivery reliability; capacity indicators track resources or competence, such as trained substitutes for critical tasks; and safeguards track adverse consequences, such as injury, customer complaints, data breaches, or unusual overtime. No one indicator can represent every dimension of an enterprise's health. Kaplan and Norton (1992) proposed a balanced scorecard linking financial results with customers, internal processes, and organizational learning. The managerial value of a scorecard depends on plausible connections and credible measures, not on drawing four attractive quadrants. A high score in learning cannot compensate for a legally prohibited act.

FIGURE 5.2 | From service purpose to a guarded management KPI tree



Note. Original decision-support figure. Proposed indicator families have illustrative definitions and should be independently validated before real operational use.

5.6.3 Worked control example: numerator discipline and variance decomposition

Suppose a hypothetical enterprise recorded 460 on-time deliveries out of 500 eligible orders in the preceding month and 420 out of 500 in the present month. The on-time rates are 92.0% and 84.0%, respectively, an eight-percentage-point reduction. The relative reduction is (84 − 92)/92 = −8.70%, which is a different statement from eight percentage points. If the present month contained 60 urgent high-complexity orders rather than 15, the unadjusted contrast could partly reflect case mix. A causal claim about one supervisor requires stronger evidence than the aggregate rates provide. It may be useful to examine product, route, customer, weather, and supplier cohorts, provided data protection and small-cell confidentiality are respected.

A financially oriented variance can also be decomposed. If the planned variable cost is RWF 13,000 per case for 1,000 units, the flexible standard for 900 actual units is RWF 11.7 million. If actual variable cost is RWF 12.15 million, the adverse cost variance at actual output is RWF 450,000 or RWF 500 per case, rather than the RWF 850,000 difference between the original RWF 13.0 million plan and actual cost. The original-budget difference combines both volume and spending changes and should not be labeled wholly 'cost inefficiency'. This illustration uses invented numbers to demonstrate that managerial control must compare like with like; detailed standard-cost variance methods belong in Chapter 23.

5.6.4 Target fixation, gaming, and the limits of auditability

Indicators affect behavior. When a score becomes a personal reward or sanction threshold, employees may alter reporting, select easier tasks, shift costs to unmeasured groups, or optimize the proxy rather than the underlying purpose. A dispatch unit might improve its 'on-time departure' measure by releasing vehicles without complete loads, harming delivery cost and customer outcomes. A call center may reduce average handling time while causing repeat calls. These risks do not justify abandoning measurement; they require combined process and outcome measures, periodic definition audits, anomaly review, and protected channels for dissenting evidence.

Controls also differ in their risks to trust. Monitoring that is necessary for safety and lawful accounting should have a transparent purpose, proportionate data collection, access restrictions, contestation procedures, and retention limits. A manager should not use measurement complexity to imply neutrality where weights, classifications, and thresholds remain discretionary choices. When a metric is persistently contested, an appropriate governance response is to revisit the construct and incentives, not simply demand more

compliance with the disputed report. Performance systems should facilitate learning and accountability, not make it dangerous to reveal bad news.

Budgets are also management-control instruments, although detailed accounting methods are treated in Chapter 23. In managerial terms, budgetary control relates approved resource commitments to operational conditions and requires explanations for variances. A static budget may incorrectly label lower spending as success when fewer customer orders were fulfilled, or higher spending as misconduct when additional authorized volume generated greater contribution. A flexible comparison adjusts an appropriate cost standard to actual activity before interpreting spending variance, while a cash forecast separately identifies timing and financing exposure. Managers should review authorization, volume, input prices, service quality and the circumstances of decisions before treating a variance as evidence of individual performance. Budgetary discipline is strongest when it protects resources and reveals trade-offs, not when it provides a mechanical basis for punishment.

The deeper difficulty is that performance measures are interventions in behavior. Once an indicator is linked to rewards or discipline, its meaning may change as staff adapt to the metric. A count of resolved complaints can be raised by reclassifying complaints, a completion rate by excluding difficult cases, and a unit-cost measure by shifting unreimbursed labor to families. The appropriate defense is a triangulated measurement architecture: pair outcomes with process evidence, independently check a sample of source records, test whether reported improvement coincides with worsening safeguard measures, and create an appeal route for decisions based on faulty data. A metric should never become immune from criticism merely because it is mathematically precise (Deming, 1986; Kaplan & Norton, 1992).

5.7 MANAGERIAL DECISION-MAKING

5.7.1 Rational comparison and its demanding assumptions

Normative decision analysis begins by defining alternatives, objectives, constraints, possible states of the world, consequences, and a decision rule. If outcomes can be assigned defensible probabilities and are measured on a comparable value scale, expected value is the probability-weighted sum of outcomes. The procedure makes assumptions explicit but does not guarantee that probabilities are known, outcomes exhaust all harms, or stakeholders share a utility function. An expected-profit maximum may still be infeasible because of liquidity, unacceptable downside exposure, employee rights, or customer-safety obligations. Decision analysis should therefore begin with legitimacy and feasibility screens and then evaluate comparable viable options.

Suppose a distributor chooses between buying a small truck or renting capacity for 12 months. Purchase requires RWF 24 million upfront and is estimated to generate RWF 30 million in net operational benefits before purchase cost, yielding a simplified RWF 6 million net value under the chosen horizon. Renting costs RWF 12 million and yields RWF 19 million of otherwise comparable operational benefits, or RWF 7 million. On these stylized undiscounted figures renting appears superior by RWF 1 million. Yet the conclusion is sensitive to resale value, maintenance, tax, financing, future demand, timing of benefits, and capacity availability. The exercise illustrates that a decision is conditional on scope and counterfactual; it is not a genuine capital-budgeting appraisal and should not be used for investment without discounted cash-flow analysis.

The same planning discipline requires explicit commitments about information quality and the timing of review. A rolling management plan can distinguish a forecast, a budget ceiling, a performance commitment and a decision trigger. A forecast is the current best estimate and may change as information improves; a budget authorizes expenditure within specified conditions; a commitment establishes accountability for authorized actions; and a trigger identifies new evidence requiring reconsideration. Conflating these concepts can make honest forecasting politically dangerous, encourage arbitrary budget reductions or permit managers to describe revised expectations as achieved targets. An effective review records both the original baseline and the current projection, identifies what changed, and documents the authority for altering resource commitments (Drucker, 1954; Simon, 1947).

5.7.2 Bounded rationality, satisficing, and heuristic error

Under bounded rationality, managers cannot examine every alternative or consequence, so they simplify, search selectively, rely on routines, and choose options that are good enough under their aspiration levels (Simon, 1947). This is not always a defect. A documented supplier-qualification threshold can save costly repetitive deliberation, and an emergency response protocol can improve safety when there is little time for novel analysis. But simplifying rules may become obsolete when the environment changes. A manager should record when heuristics apply, what evidence would invalidate them, and which decisions demand a fuller comparison.

Behavioral research identifies recurring judgment vulnerabilities, including anchoring, availability, overconfidence, base-rate neglect, and framing effects (Tversky & Kahneman, 1974; Kahneman & Tversky, 1979). A manager may anchor on the initial supplier quote while ignoring failure costs, treat a vivid recent fraud incident as the dominant risk, or defend a project because prior spending makes abandonment uncomfortable. Mitigations include considering reference classes, separating forecasts from advocacy, using structured predecision challenges, obtaining independent estimates for consequential choices, and distinguishing sunk costs from future opportunity costs. None is infallible; a formal checklist can itself become performative or increase delay.

5.7.3 Intuition, experience, and evidence-informed judgment

Expert intuition may encode valid patterns learned through repeated exposure to environments with regular feedback, but confidence alone does not identify the quality of those patterns. An experienced retailer may notice seasonal demand shifts before a formal model is available, while a manager confidently interpreting a novel AI-enabled market faces conditions where past patterns may not hold. Evidence-informed decision-making combines relevant published research, local organizational evidence, professional expertise, and stakeholder concerns, while making the limits of each explicit (Rousseau, 2006). The decision maker needs a record of alternatives and disconfirming evidence, not a demand that every choice be delayed until certainty exists.

A manager choosing a supplier may use a staged procedure: state nonnegotiable specifications; compare expected total costs including failure risk; check operational continuity and legal requirements; document the final choice and dissenting concerns; and review performance against the original assumptions. Such a process is repeatable without implying that every case can be reduced to a universal formula. Evidence quality, risk, time available, stakeholder interests, and reversibility determine appropriate analytical depth.

Kahneman and Klein (2009) reconcile seemingly opposed research traditions by identifying circumstances in which expert intuition is more likely to be reliable: the environment must contain sufficiently stable regularities, and the professional must have opportunities to learn them through timely, informative feedback. An experienced production supervisor may have learned a valid pattern of mechanical faults, whereas a manager predicting an unprecedented geopolitical interruption cannot claim equal intuitive validity. This distinction has an immediate procedural implication. Recurrent, feedback-rich decisions may safely rely on tested heuristics within known bounds; unfamiliar, high-stakes and hard-to-reverse decisions need independent reference classes, deliberate challenge, and clear uncertainty disclosure. Confidence and seniority are not adequate substitutes for these tests.

5.7.4 The management decision log as an accountability instrument

A decision log should allow another reviewer to reconstruct what was known, which objective was pursued, who had authority, what alternatives were viable, what concerns were raised, why a choice was made, and when the choice would be revisited. This practice reduces retrospective rewriting, although documentation alone does not guarantee good faith. The log should record uncertainty in plain language and preserve forecasts as made, not overwrite them with later information. It is also important to distinguish a decision date from an

implementation date because delayed implementation changes both the exposure period and the appropriate interpretation of results.

TABLE 5.3 | Managerial decision log: minimal reviewable record

Field	Example for a supplier substitution	Review requirement
Decision and owner	Temporary packaging supplier; procurement manager proposes, founder approves	Verify delegated authority and contract limits
Evidence and alternatives	Supplier quotes, quality certificates, lead times; retain existing / replace / partial order	Date evidence and source; note missing data
Assumptions and uncertainty	Input availability, product fit, price variation and delivery likelihood	Distinguish observed evidence from forecast
Affected interests and safeguards	Customer safety, staff workload, supplier fairness, cash exposure	Check applicable rights, conflicts and exclusions
Action and reconsideration	Pilot order approved; review after first two deliveries	Owner, trigger, dates and corrective plan

Note. Original proposed instrument for educational and internal diagnostic use; neither a compliance certification nor a validated predictor of decision quality.

The decision log is particularly useful at cross-functional boundaries. For instance, marketing's request for accelerated shipping may appear inexpensive until procurement discloses stock constraints and finance reveals a receivables backlog. A log signed by an authorized decision owner can show how these concerns were reconciled without allowing the strongest department to redefine the decision afterward. The same mechanism can be used in nonprofits, public agencies, cooperatives, and family businesses, with retention and access tailored to their actual legal and ethical obligations.

5.8 POWER, AUTHORITY, AND INFLUENCE

5.8.1 Formal powers and informal dependencies

Formal authority derives from organizational and legal arrangements: job appointments, delegated mandates, corporate documents, public rules, or cooperative resolutions. Informal influence may derive from expertise, personal trust, information access, control of scarce resources, social relationships, or the ability to mobilize colleagues. The two can conflict. A nominal supervisor may lack practical control of records held by an experienced clerk, while a founder's relative may exert influence without any recorded office. Effective management requires mapping who can actually delay, approve, hide, or reinterpret consequential decisions, instead of assuming the organization chart captures operative power.

Power is not inherently illegitimate; coordinated enterprises require authority to commit resources, settle conflicts, and protect rights. Its misuse arises when discretion exceeds authorized purpose, favors private interests, silences challenge, or shifts costs to weaker parties. An ethical management system must protect the distinction between responsible discretion and arbitrary domination. For example, a family-owned supplier may legitimately employ relatives, but procurement awards to related parties require fair price comparison, disclosure where required, and review under applicable rules. In a small firm, simple documented safeguards can be more feasible than complex committees while still protecting trust.

5.8.2 Procedural, distributive, interpersonal, and informational justice

Organizational justice offers a useful vocabulary for evaluating the exercise of managerial power. Distributive justice concerns how outcomes and burdens are allocated; procedural justice concerns consistency, impartiality, correctability, and voice in decision processes; interpersonal justice concerns dignity and

respectful treatment; informational justice concerns truthful and adequate explanation. Colquitt (2001) empirically examined these dimensions and their relations with organizational outcomes. The dimensions are analytically distinct: a worker may receive the same pay as colleagues but experience an unfair dismissal process or humiliating explanation. A financially efficient disciplinary procedure can damage moral legitimacy and cooperation if basic rights of representation or correction are denied.

Procedural fairness need not mean every participant can veto decisions. Managers can be transparent about authority and constraints, invite relevant evidence, use consistent decision criteria, and explain outcomes even when stakeholders disagree. Justice also requires sensitivity to power asymmetry. A whistleblowing channel is not credible if the accused supervisor controls complaints and retaliation decisions. An internal audit review is not independent if its scope and reporting can be changed by the manager under scrutiny. Governance principles from Chapter 8 and compliance safeguards from Chapter 3 become operational at this interface between managerial discretion and contestability.

5.8.3 Conflicts of interest, favoritism, and escalation

A conflict of interest exists where a secondary private or institutional interest could improperly influence a person's primary managerial duty. Potential and perceived conflicts merit attention even when actual misconduct has not been demonstrated. The manager's responsibility is to disclose relevant interests to the authorized reviewer, avoid self-approval where the conflict is material, preserve comparable evidence, and document the final decision under the governing rules. Disclosure is necessary but not always sufficient: some conflicts require recusal, independent approval, or a prohibition.

The deeper issue is the information problem created by concentrated power. When managers can approve transactions, define performance measures, control the evidence of compliance, and assess complaints about themselves, routine checks may become circular. A proportionate enterprise needs separation of critical functions, an escalation mechanism for employees and suppliers, and an accountability chain extending beyond the immediate decision maker. A cooperative may use elected member oversight, a nonprofit an independent trustee process, and a small private firm an external bookkeeper or second authorized signatory. The institutional form changes, but the requirement to make discretionary power reviewable persists.

This distinction between nominal and effective power has consequences for evidence-based management. An employee who controls the only customer register can shape what the owner believes about demand; an algorithm designer who selects the scoring variables can effectively change a supervisor’s decisions without holding the supervisor’s title. A governance map must therefore consider access to information, resource dependencies and the right to define categories, not merely formal authorization thresholds. Independent challenge is meaningful only if the reviewer can inspect the underlying information and propose a correction without exposure to retaliation. Transparency of the final decision is necessary but insufficient when the process that generated its evidence remains inaccessible (Colquitt, 2001; Kellogg et al., 2020).

5.9 MANAGEMENT ACROSS ORGANIZATIONAL CONTEXTS

5.9.1 Microenterprises, informality, and owner-management

Microenterprises often concentrate ownership, cash management, purchasing, sales, employment decisions, and customer relations in one individual. This can accelerate response and preserve contextual knowledge but also overload attention and create undocumented processes, weak continuity, and limited challenge. Management advice based on the layered governance and information systems of multinational corporations can be inappropriate where staff headcount, cash flows, and technology capacity are small. Essential practices may instead be a daily stock check, simple receivable ledger, named cash approval limit, weekly order forecast, and regular discussion of customer complaints. McKenzie and Woodruff's (2017) findings support taking such routines seriously while cautioning against treating their measured associations as guaranteed causal benefits.

Rwanda's IBES 2024 survey estimated 278,060 nonagricultural business enterprises and reported that at least 87% of business activity in its surveyed enterprise landscape was informal (NISR, 2026). The survey classified formal enterprises by registration and maintenance of regular business accounts under its stated criteria, so this statistic does not translate into an assertion that all informal businesses lack capable management. Rather, it underscores the importance of designing managerial instruments that do not presume audited statements, ERP subscriptions, specialized directors, or abundant working capital. It also requires care when transferring evidence from registered, medium-sized firms to the much broader enterprise population.

5.9.2 Family, cooperative, and public-purpose enterprises

Family enterprises often draw strength from trust, continuity, and long-term commitment while facing succession disputes, ambiguous employment boundaries, and the substitution of kinship standing for competence. These are possible risks, not deterministic family-firm characteristics. A family manager may improve legitimacy by distinguishing owner distribution decisions from employee performance, documenting related-party transactions, establishing merit-based roles, and planning succession. The comparative World Management Survey literature reports associations between management practices, ownership, competition, and workforce skills, but observed variation within categories prevents simplistic claims about all family businesses (Bloom et al., 2012).

Cooperatives and nonprofit organizations make the separation of purpose and financial return more explicit. Their managers must coordinate resources while answering to member-defined mutual benefits or mission outcomes, often through democratic or trustee governance. Financial sustainability remains necessary without implying that revenue maximization is the sole purpose. Public enterprises and government agencies additionally face public-law obligations, political accountability, universal access considerations, and service continuity requirements. A public manager should not optimize cost per transaction by excluding remote users if the legitimate mandate requires equitable reach. In each form, evaluating management first requires identifying who has the authority to define acceptable success and how affected parties can challenge performance measures.

5.9.3 Multinational and platform-mediated organizations

Multinational management must coordinate differently located units across currencies, languages, regulations, professional standards, infrastructure, and labor conditions. Standardized quality protocols can improve repeatability, yet extensive standardization may ignore local customer needs or legal duties. Matrix reporting can integrate product, geography, and function but multiply conflicting instructions. Managers need clearly allocated decision rights over local customization, supplier approval, safety exceptions, data transfer, and crisis escalation. Control systems must distinguish genuine performance differences from currency movements, business mix, and reporting conventions across jurisdictions.

Platform-mediated organizations add an additional complexity: rules that appear to govern independent sellers, drivers, or creators are often managerial decisions implemented through software rather than through a conventional employment hierarchy. Ranking, matching, pricing, account suspension, and automated rating systems can affect livelihoods without transparent review. The appropriate managerial question is not only how efficiently the algorithm operates but who authored its objective, what data support it, whether harmful error is detectable, and which human authority can correct it. Its legal characterization depends on jurisdiction and facts; Chapter 3 addresses regulatory orientation, and Chapters 28–29 address the technical systems.

5.10 CROSS-FUNCTIONAL MANAGEMENT

5.10.1 Managing handoffs instead of optimizing silos

An enterprise becomes unreliable when departments complete their own tasks but leave the customer-facing process incomplete. Marketing promises, procurement purchases, operations transforms, logistics delivers,

accounting invoices, finance funds, and customer support resolves exceptions. Each transition has a provider, a receiver, a data object, an acceptance criterion, and a deadline. Managerial coordination means specifying these interfaces, not simply scheduling a meeting whenever conflict occurs. A poor handoff can be a missing stock code, an unapproved purchase, an incorrect promised date, or an invoice that cannot be matched to delivered items. The cost of fixing it later may exceed the cost of a simple earlier validation.

The relevant management system combines lateral coordination with an explicit escalation hierarchy. Routine cases should flow through agreed procedures; unusual commitments require cross-functional consultation; irreversible high-risk decisions require authorized approval. Lawrence and Lorsch (1967) provide theoretical support for the challenge of integrating differentiated subunits, while the systems argument explains downstream propagation. Such coordination is the practical bridge from Chapter 1's enterprise architecture to the specialist chapters that follow. It is also where ethical risks become visible: a sales incentive that rewards promises beyond safe capacity transfers a private reward into another function's burden.

5.10.2 RACI and the boundaries of responsibility matrices

The RACI convention distinguishes the actor or team Responsible for doing work, the person Accountable for the authorized final result, parties Consulted before decision or action, and those Informed when relevant. This is a management tool, not a statute or a substitute for professional obligations. A good matrix gives each critical activity a clearly named accountable owner, makes overlapping responsibilities explicit, and ensures consultation is timely rather than ceremonial. Multiple responsible performers may be appropriate; excessive consultation for routine tasks slows operations; and an 'informed' designation should not be used to suppress legitimate participation of someone whose rights are materially affected.

TABLE 5.4 | Illustrative RACI responsibilities for a customer-order process

Activity	Responsible (R)	Accountable (A)	Consulted / informed
Accept and verify order promise	Sales representative	Sales manager	Operations consulted; finance informed
Confirm materials	Purchasing officer	Procurement manager	Storekeeper consulted; operations informed
Approve exceptional customer credit	Credit analyst / bookkeeper	Authorized finance manager	Sales consulted; operations informed
Prepare route and dispatch	Dispatch coordinator	Operations manager	Sales consulted; customer service informed
Reconcile invoice and receipt	Accounts officer	Finance manager	Dispatch consulted; procurement informed
Resolve quality complaint	Customer-service officer	Customer-service manager	Quality and operations consulted; finance informed

Note. RACI means Responsible, Accountable, Consulted and Informed. Roles are illustrative; statutory, professional, and contractual obligations cannot be reassigned merely by a RACI chart.

In the illustrated order flow, the dispatch lead is responsible for route assignment while the operations manager is accountable for the service outcome; procurement controls input readiness, finance approves exposures above an agreed credit threshold, and customer service validates the promised date. An actual matrix must be adapted to job positions and authorized decision limits. The table deliberately simplifies the reality that a legal officer, clinical professional, or public safety official may have nondelegable duties despite a local RACI entry. It is a diagnostic instrument for contested handoffs, not a license to transfer statutory responsibility.

The probability of a satisfactory end-to-end service illustrates why handoffs matter. Under the deliberately simplified assumption that six independent transfer stages each succeed with probability 0.95, the chance that

all six succeed is $0.95^6 = 0.7351$, or approximately 73.5%. Improving each stage to 0.98 would increase the modeled end-to-end rate to $0.98^6 = 0.8858$, or approximately 88.6%. These numbers are mathematical teaching assumptions, not estimates of real order flows. They show that apparently respectable local reliability can coexist with poor complete-order performance. Independence is an especially strong assumption: failures may share a common cause, and retries or recovery mechanisms can change the result. An actual enterprise should measure joint events, not substitute this illustrative multiplication for observed data.

5.10.3 Meetings, coordination cadence, and escalation design

Meeting quality depends on decisions and actions rather than duration or attendance. A daily operational huddle may address today's constraints and handoffs; a weekly exception review may determine repeated causes; a monthly managerial review may assess variance, cash exposure, workforce implications, and improvement commitments. A useful agenda makes decision owner, relevant evidence, alternative options, and end-of-meeting action explicit. Discussion items without a necessary decision can often be reported asynchronously, reducing time cost and allowing workers with field obligations to participate appropriately.

A managerial escalation rule needs a threshold and a time horizon. A missing input that threatens a same-day customer promise may require immediate escalation; a small routine variance can be reviewed at the weekly meeting. Escalation must be psychologically safe and not treated as evidence of incompetence. Managers should audit not only resolved issues but repeated unreported exceptions, since silence may reflect fear rather than operational health. A coordination practice is effective if it shortens problem discovery and resolution while preserving decision quality and stakeholder rights, not merely if it increases the number of meetings recorded.

5.11 MANAGEMENT TECHNOLOGY AND DASHBOARDS

5.11.1 From transaction records to managerial systems

Management information systems range from a paper register or spreadsheet to integrated enterprise resource planning (ERP), customer relationship management, workflow software, and specialized analytics. Their function is to make selected events and states visible at the appropriate decision point: orders placed, stock available, cash due, safety exceptions, approved spending, and service commitments. The usefulness of a digital system depends on source-data validity, timeliness, agreed identifiers, role-based access, and the underlying process. An ERP installation cannot repair an ambiguous ownership of master data or create an enforceable supplier contract by itself.

Digital integration can reduce duplicate entry and shorten handoff delays, but a system may also centralize errors, conceal local workarounds, and create new cyber dependencies. In a small Rwandan firm, digital investment should be evaluated against internet stability, device availability, staff literacy, licensing cost, vendor support, and the possibility of exporting records. Managers need a continuity procedure for outages and a documented data ownership arrangement. The NISR IBES 2024 materials identify advanced or specialized IT skills and foreign-language communication among skill gaps raised by enterprise managers, supporting a practical need to adapt management systems to user capacity instead of assuming a universally digitally ready workforce (NISR, 2026).

5.11.2 AI-assisted planning, supervision, and augmentation

AI tools can assist with document classification, demand forecasts, anomaly identification, scheduling proposals, customer-service knowledge retrieval, and drafting of routine management communications. These are candidate applications with different evidence levels, not proof that automated tools make better managerial judgments across tasks. In one documented study of 5,172 customer-support agents, Brynjolfsson et al. (2025) estimated a 15% average productivity increase after access to a generative AI assistant, with differences by prior skill and experience. The study concerns a specific customer-service setting, measure, and

deployment, and therefore does not support a general claim that AI raises all managerial or national productivity by 15%.

Human managers remain responsible for defining lawful goals, acceptable data sources, which outputs require review, and how errors are corrected. AI can generate confident-looking but mistaken recommendations; models trained on historic decisions may reproduce discrimination or outdated practices. For consequential workplace actions, a manager should require evidence traceability, an appropriately competent reviewer, documented exceptions, and an appeal mechanism. More automation is not always efficient once validation, audit, worker consultation, and failure costs are counted. A managerial business case should compare total life-cycle cost and risk against a simpler available procedure, not only software subscription fees.

5.11.3 Algorithmic management, privacy, and contested accountability

Algorithmic management describes the use of computational systems to allocate, instruct, monitor, evaluate, or influence work. It can improve consistency in routing and service coverage, but it can also increase intensive surveillance, opaque scheduling, and contested discipline. Where ratings or productivity scores determine pay or continued access to work, data quality and contestability become material conditions of procedural justice. Employees and platform participants may not know whether an adverse decision arose from an incorrect record, a policy choice, or a model prediction. Management cannot evade responsibility by attributing the decision to 'the system'.

NIST's AI Risk Management Framework 1.0 identifies governance, mapping, measurement, and management as interacting activities for evaluating AI risks and trustworthiness; it is a voluntary risk-management framework, not a statement of binding Rwandan law (Tabassi, 2023). A proportionate enterprise protocol identifies a named system owner, purpose and legal basis, data provenance, performance and bias tests, the circumstances for human override, incident response, vendor accountability, and retirement procedures. Because AI outputs change with model updates, work practices, and data, management should periodically retest the entire decision pathway, not treat initial vendor certification as permanent assurance.

A review of algorithmic management by Kellogg et al. (2020) identifies recurring mechanisms through which computational systems direct, evaluate and discipline work. Their analysis helps explain why a formally neutral scoring application can change power relationships: the organization determines what is recorded, which conduct counts, how scores are weighted and when a worker may appeal. These choices may create efficiencies but also produce new forms of managerial opacity. Proper evaluation should distinguish the technical accuracy of a model, the institutional legitimacy of the rule it enforces and the effects experienced by affected workers. Responsibility for these distinct questions should be assigned before any system is used to justify sanctions, compensation decisions or exclusion from work.

The evidence on human–AI combinations is also mixed. Vaccaro et al. (2024) synthesized experimental studies and found that combinations of human and AI performance do not invariably exceed the stronger constituent working alone; the relative merits differ by task and combination design. Accordingly, a responsible rollout should identify which actions AI may recommend, which require human authorization, which can be reversed, and which require an independent adverse-event review. Validation should measure accuracy, worker time, error concentration, privacy burden, skills transfer and distributional consequences. A successful pilot on routine customer responses is insufficient evidence for delegating disciplinary decisions or sensitive hiring assessments.

5.11.4 Dashboard governance and the information-to-action gap

Dashboards display selected indicators, but information is not action. Their common failure is to show many numbers without assigning who can intervene, how rapidly, or with which resources. Visualizations may obscure small sample sizes, silently change denominators, or report average improvement while a vulnerable subgroup deteriorates. Managers should retain data definitions and versioned historical views, display uncertainty when relevant, and link every priority indicator to a feasible decision. For an enterprise with sparse

records, a limited validated set of cash, stock, delivery, and safety measures may be preferable to a visually elaborate but unreliable management console.

A useful dashboard audit asks what decisions users actually made because of each indicator, what alternative explanation was considered, what errors occurred, and whether anyone suffered a concealed cost. This shifts attention from software adoption to responsible management capability. It also protects the principles of Chapter 4: descriptive patterns, predictive signals, causal impacts, and moral judgments require distinct forms of support, even when presented side by side on the same screen.

5.12 EVALUATING MANAGEMENT PRACTICE

5.12.1 Effectiveness, efficiency, resilience, and legitimate outcomes

Effectiveness concerns achievement of justified objectives, whereas efficiency concerns the resource cost of achieving specified results. Neither concept is complete without quality, risk, and stakeholder boundaries. An organization can be efficient in shipping defective goods; a department can meet a revenue target by offering unsustainable credit; a charitable enterprise can fulfil an immediate mission target while exhausting funds needed for continuity. Management appraisal should examine outputs, outcomes, capability preservation, and preventable harms over a defensible horizon. The evaluation must distinguish the manager's controllable choices from external economic conditions and structural constraints.

A multidimensional management assessment considers service or customer reliability, financial viability, process quality, employee wellbeing, governance integrity, learning, environmental exposure, and the distribution of consequences. A scorecard or weighted composite is appropriate only if its purpose, aggregation rules, weights, missingness, and thresholds are made explicit. A severe safety breach should not become invisible through averaging against high sales performance. Some criteria are best treated as minimum conditions; others may be weighed among feasible alternatives. This framework applies across ownership forms, although the relative content of objectives must be legitimately established by the relevant enterprise mandate (Kaplan & Norton, 1992; Freeman, 1984).

5.12.2 Measurement, attribution, and selection effects

Evaluating a management initiative is not the same as observing a subsequent performance increase. Firms adopt new practices because they anticipate growth, respond to crisis, receive financing, replace leadership, or enter new markets. A before-after comparison confounds those factors with the intervention unless a credible comparator and timing assumptions are available. Bloom et al.'s (2013) randomized intervention strengthens attribution for specified Indian manufacturing plants; cross-sectional practice ratings alone do not. Moreover, program effects vary by complementary capital, skill, implementation fidelity, and preexisting practices. Managers should refrain from claiming a causal gain when they have only descriptive improvement.

A proportional evaluation design can begin with a written intervention theory: for example, supplier-readiness checks are expected to reduce missing materials, which should reduce dispatch failures, which should improve on-time delivery. The manager then defines the eligible order population, comparison period, data sources, potential confounders, unintended consequences, and an operational stopping rule. Where randomization is infeasible, staggered deployment, matched units, or interrupted time series may help under explicit assumptions, but should not be described as experimental proof. Assessment should include implementation costs and worker or customer burdens, not just the easiest-to-measure business outcome.

5.12.3 A diagnostic management-effectiveness instrument

A practical review can evaluate six dimensions: (1) purpose and goal clarity, (2) decision-right alignment, (3) cross-functional handoff reliability, (4) data and feedback credibility, (5) worker and stakeholder fairness, and (6) learning and corrective capacity. Each dimension can be rated on an explicitly defined ordinal scale, for example 0 = absent, 1 = informal and inconsistent, 2 = documented but weakly evidenced, 3 = routinely

practiced with records, and 4 = independently tested and adaptively improved. These scores are descriptive judgments for teaching and internal diagnosis, not a validated psychometric instrument or a cross-country ranking. Analysts should retain underlying evidence and avoid treating a summed score as if the six dimensions were causally substitutable.

The instrument works best as a reasoned discussion with documentary evidence: minutes of decisions, current authority schedules, exceptional order traces, data dictionaries, corrective-action logs, and records of protected employee feedback. A low score in any dimension should prompt a specific causal diagnosis before action. For instance, an absence of timely order data may be a skills, software, incentive, or supplier-contract problem. Prescribing new digital software without identifying the binding constraint can produce expenditure without improved performance. The objective is transparent improvement, not ceremonial compliance with a managerial checklist.

Evaluation should also separate the performance level from its counterfactual trajectory. A delivery rate of 90% after a management intervention is not necessarily an improvement attributable to it if comparable routes improved to 95% for other reasons. Similarly, an apparently modest outcome may reflect a valuable prevention of deterioration during an external shock. Where feasible, the evaluation protocol should specify the treated unit, comparable alternatives, measurement window, attrition and spillovers before results are inspected. Appropriate sensitivity checks would examine whether findings survive disaggregation by customer group, order complexity, worker shift and baseline performance. Qualitative feedback can reveal mechanism and harm, but should not be converted into an invented frequency estimate. This is the practical bridge between managerial control and the research-design principles developed in Chapter 4.

TABLE 5.5 | Management diagnostic rubric with evidence requirements

Dimension	Evidence a reviewer would examine	Typical failure signal
Purpose and goal clarity	Documented objectives, constraint register and revision triggers	Multiple competing or unsafe targets
Decision-right alignment	Authorization schedule, delegated thresholds and escalation records	All decisions await one person or no one owns them
Cross-functional handoffs	Order traces, acceptance checks and exception resolution	Repeated rework at the same interfaces
Information integrity	Definition register, source records and periodic reconciliation	Denominators shift or data are unverifiable
Justice and stakeholder care	Fair process, safeguarded complaints and work-quality evidence	Retaliation, hidden injuries or unexplained penalties
Learning and correction	Review minutes, action owners and verified follow-through	Recurring problems with no change in system

Note. Original six-dimension teaching instrument. Suggested ratings 0–4 are ordinal and have not been psychometrically validated; qualitative supporting evidence is indispensable.

5.13 RWANDA-BASED APPLICATION AND INTERNATIONAL COMPARATIVE CASE

5.13.1 Rwanda's management context: what official evidence can and cannot show

Rwanda provides an analytically important setting because a significant share of enterprise activity operates under small scale, personal ownership, and imperfectly formalized business processes. The official Integrated Business Enterprise Survey 2024 estimated 278,060 business enterprises within its survey framework and identified at least 87% informality in the business landscape. It also reported that 62.6% of manufacturing enterprises responding to the capacity-use question were operating below full capacity, with low demand and

unreliable input supply among reported constraints (NISR, 2026). These are descriptive indicators of the enterprise population and selected industry conditions, not direct measures of individual managers' competence, nor can they establish the causes of informality or capacity underutilization. They do, however, caution against assuming that the central managerial problem is simply a lack of effort or modern software.

The IBES 2024 publication also identifies managers' concerns about advanced or specialized IT skills and foreign-language communication (NISR, 2026). In practical terms, planning and control instruments should reflect language accessibility, available data, employee skill, transaction volume, affordability, and actual institutional obligations. This is not an argument for permanently informal or low-tech management. It is an argument for sequenced capability building. A trustworthy order register and weekly replenishment meeting may create a stronger foundation for later ERP adoption than deploying a complex application before product identifiers and stock responsibilities are defined. The correct sequence depends on the enterprise's real bottlenecks and accessible opportunities.

The Rwanda context further tests the explanatory reach of classical theory. Taylor's standardization can be useful where repeatable packing tasks dominate, but its benefits may be constrained by variable input quality, power reliability, or low volumes. Fayol's coordination helps clarify owner-manager decisions, but a full hierarchy may be unaffordable in a five-person firm. Bureaucratic recordkeeping can reduce favoritism, yet excessive documentation can impose disproportionate costs. Follett's integration is valuable where supplier and worker knowledge matter, while a contingency perspective advises combining standardized safety constraints with flexible routing or sourcing. Such adaptation is the object of management, not evidence that African businesses are immune to general principles.

5.13.2 Worked hypothetical case: Umucyo Family Distribution, Kigali

Illustrative case, not a real-company performance claim. Umucyo Family Distribution is a constructed family-owned Kigali business with a proprietor, six employees, two delivery vehicles, and recurring orders from local retailers and clinics. The enterprise faces three problems: late deliveries, undocumented cash advances, and uncertain stock availability. The founder approves every supplier purchase and route change, often by phone. A junior clerk maintains a spreadsheet but sometimes receives invoices after goods arrive. Delivery drivers can see available stock only by calling the storekeeper. Despite personal dedication, handoffs fail because the manager's authority is centralized while the underlying information is dispersed.

A proportionate management redesign would begin by defining the customer promise in measurable terms, confirming an accurate stock ledger, allocating purchase authority up to a reasonable threshold, and establishing a daily exception report. Procurement would be responsible for confirming input availability, the operations coordinator accountable for authorized delivery scheduling, and the bookkeeper responsible for recording and reconciling payments with a second signatory for material transactions. The founder would retain authority over major capital expenditure and supplier contracts but would stop approving routine actions already within a documented budget. Weekly reviews would examine late-order reasons, cash exposure, supplier failures, employee concerns, and a small set of clearly defined indicators. None of these changes implies that Umucyo has undergone an actual intervention or produced measured improvements.

The hypothetical monthly base plan in Section 5.3 can be linked to the case. At 1,000 cases, a selling price of RWF 20,000, variable cost of RWF 13,000, and avoidable fixed operating cost of RWF 4 million, the simple operating surplus is RWF 3 million. A rise in variable cost to RWF 15,000 reduces it to RWF 1 million. Management can respond by reviewing routes, supplier terms, and case mix, but no solution is established without demand and safety analysis. Raising price may lose customers; reducing packaging specification may breach quality requirements; cutting worker rest may undermine safety; extending payment terms to suppliers may shift risk to weaker parties. The numerical illustration therefore becomes a cross-functional and ethical decision problem rather than merely a test of arithmetic.

An evaluator of Umucyo would first document a baseline over an agreed period with consistent definitions, then test a staged change on selected routes or product groups where feasible. Useful outcomes include

complete and on-time orders, avoidable stockouts, customer complaints, payment exceptions, working-capital strain, and worker hours. Managerial learning should be credited not for an unverified increase in productivity but for improved decision traceability, fewer avoidable handoffs, and an evidence base capable of supporting later causal evaluation. If the enterprise cannot collect reliable pre-intervention information, that measurement problem is itself a priority management finding.

An additional comparison can be drawn from the Mexican consulting experiment. Bruhn et al. (2018) studied a defined treatment offered to 432 SMEs and observed variation in managerial responses, with particular developments in marketing, accounting and longer-term planning. This evidence differs from Toyota's corporate philosophy because it addresses outcomes under experimental assignment, but it still does not establish the cost-effectiveness or feasibility of a comparable intervention for a seven-person Rwandan distributor. The comparative inference requires specifying the treatment dose, advisory expertise, opportunity costs, local supplier conditions, financing, survival selection and the performance measures used. A policy recommendation for Rwanda would need to compare alternative feasible interventions, including short-form recordkeeping support, peer learning, targeted procurement training and sustained consulting, rather than assume that one imported format is inherently superior.

5.13.3 Documented international comparator: Toyota's management philosophy

Toyota Motor Corporation's historical account states that the Toyota Way 2001 organized companywide management values around two broad pillars, continuous improvement and respect for people, with associated ideas including challenge, kaizen, on-site observation, respect, and teamwork (Toyota Motor Corporation, n.d.). The company's published account is primary corporate documentation of its declared philosophy, not independent proof that every Toyota facility, supplier, or employment practice conforms to it. Its central managerial relevance is the attempt to pair standardized problem-solving and recurrent improvement with organized knowledge from the people performing work, rather than reduce management to an order hierarchy.

Toyota's institutional setting differs sharply from the hypothetical Kigali distributor. The former operates within global production, professional specialization, supplier networks, extensive capital commitments, and developed training infrastructures. The latter confronts liquidity constraints, relatively small transaction volumes, limited staff substitution, and possibly less formalized information systems. Copying a large-company visual management board without the resources to maintain accurate stock information would be symbolic rather than functional. By contrast, the underlying practice of observing a problem at its source, asking why a handoff failed, and recording corrective action could be adapted at low cost. Transferability rests on a mechanism and fit assessment, not brand admiration.

The case comparison also requires critical safeguards. Toyota's own documentation describes an organizational philosophy; it does not supply a causal estimate of the impact of its principles relative to a realistic alternative. Management practices are embedded in technology, labor relations, governance, and supplier institutions, meaning that selected visible practices cannot be isolated from their complements without further study. The India field experiment and developing-country microenterprise evidence offer more direct empirical support for some management routines, yet neither identifies the universal effect of adopting a 'Toyota Way' label (Bloom et al., 2013; McKenzie & Woodruff, 2017). A rigorous international comparison therefore draws lessons from the underlying coordination mechanisms while respecting the differences in scale and evidence.

TABLE 5.6 | Management design: hypothetical Kigali family SME and documented Toyota philosophy

Dimension	Rwandan teaching scenario	Toyota corporate account	Transferability caution
Purpose and improvement	Reliable, affordable customer deliveries	Continuous improvement and respect for people	Adopt principle, not an unsupported performance claim

Dimension	Rwandan teaching scenario	Toyota corporate account	Transferability caution
Decision locus	Founder approves many routine exceptions	Documented companywide philosophy and distributed training	SME needs feasible delegation before complex formalization
Information source	Manual records and direct supplier calls	Emphasis on going to the source for facts	Data quality and capacity determine usefulness
Coordination	Small team, cash constraints and direct meetings	Large global networks and standardized values	Do not copy scale-dependent systems mechanically
Evaluation	Test complete orders, cash, safety and handoffs	Corporate account states philosophy, not causal effect	Use credible counterfactuals before claiming success

Note. The SME is fictional. Toyota descriptors draw from Toyota Motor Corporation (n.d.) and are corporate self-description, not independent outcome verification. National context is informed by NISR (2026).

5.13.4 Practical decision: which practices should be transferred first?

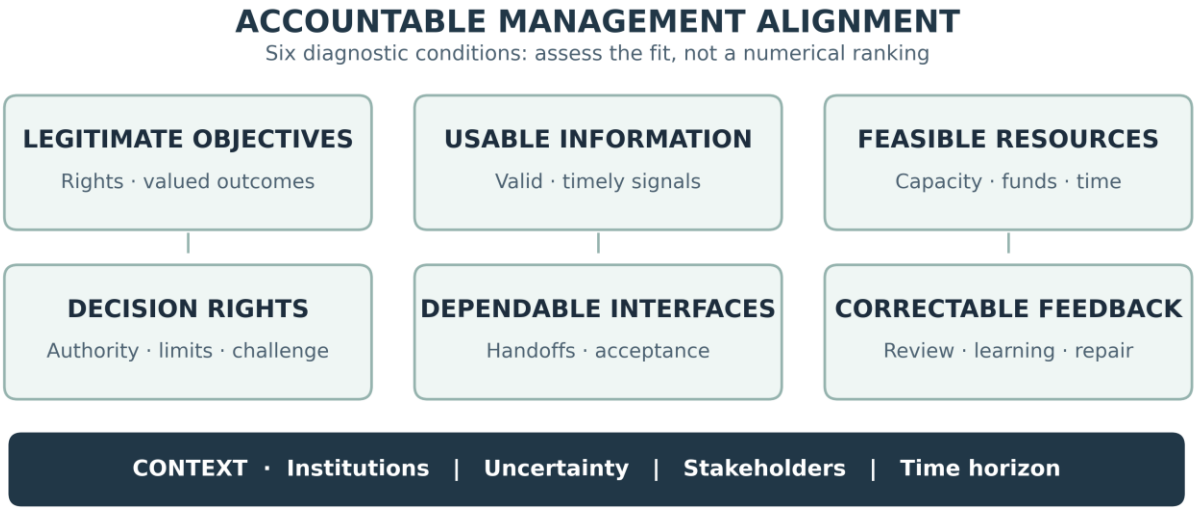
For the hypothetical SME, immediate priorities are an agreed order definition, stock and supplier responsibility, a low-cost exception register, reliable cash reconciliation, and an escalation rule for risky promises. These have clear mechanisms and low implementation complexity. A later phase could add route software or structured process dashboards if transaction volume, staff capability, data quality, and lifecycle cost support the investment. A third phase could consider a more integrated enterprise system after records and delegation controls stabilize. The sequence is an educational proposal, not an empirically estimated rollout plan for a real organization. Its success would need validation against observed implementation, alternatives, and worker and customer outcomes.

5.14 INTEGRATIVE MANAGEMENT FRAMEWORK, CRITICAL DEBATES, AND RESEARCH AGENDA

5.14.1 Management as alignment of six contingent conditions

The synthesis of this chapter conceptualizes management quality as a provisional alignment among six conditions: legitimate objectives, usable information, feasible resource commitments, intelligible decision rights, dependable cross-functional interfaces, and correctable feedback. The conditions operate within institutions, workforce relationships, and external uncertainty. Planning clarifies objectives and commitments; organizing assigns decision rights and interfaces; leading sustains understanding and responsible action; controlling tests performance and permits correction. But each condition also reshapes the others: a reliable feedback channel changes the goals managers consider realistic, and fair supervision can increase the information employees willingly disclose. The framework therefore depicts mutual dependence rather than a one-way chain.

FIGURE 5.3 | A conditional framework of accountable managerial alignment



Note. Author's conceptual synthesis of the chapter's six diagnostic conditions. Relationships are proposed and not empirically validated.

The model should not be treated as a formula in which higher scores on every condition automatically generate better performance. Goals can conflict, information collection can impose privacy harms, coordination can become bureaucracy, and corrective action can destabilize effective routines. It is a diagnostic mapping that directs inquiry to specific possible failure mechanisms. Strong claims would require operational definitions, identification of plausible counterfactuals, longitudinal and comparative evidence, and measurement of financial as well as nonfinancial outcomes. Its status is conceptual; any apparent originality lies in the specified integration and empirical agenda, not in an assertion that coordination or responsibility is newly discovered.

5.14.2 Persistent scholarly disagreements

A first debate concerns universal best practices versus contextual fit. Empirical studies show that some measurable routines are associated with better outcomes and can improve performance under tested interventions (Bloom et al., 2013; McKenzie & Woodruff, 2017), yet contingency scholarship shows that technology, uncertainty, and differentiation alter management requirements (Burns & Stalker, 1961; Lawrence & Lorsch, 1967). A defensible reconciliation distinguishes practices that express relatively general functional needs, such as accurate records or clear authorization, from their particular organizational form. The same need can be met through a notebook and dual signature in one firm, or integrated ERP workflows and audit logs in another.

A second debate opposes target-based accountability and intrinsic professional responsibility. Measurable objectives can discipline vague aspirations, while an excessive concentration on numerical targets can induce gaming and suppress genuine learning (Locke & Latham, 2002; Deming, 1986). The resolution is not to choose measurement or trust as absolutes. Managers need valid indicators, procedural safeguards, open explanations, and separate assessment of outcomes that should not be traded away. The meaning of an observed improvement must be tested: a lower average call time is not necessarily higher service quality; a more profitable unit is not necessarily more socially responsible.

A third debate concerns hierarchical power and participatory knowledge. Formal authority is necessary for timely commitments and enforceable responsibility, but expertise, local knowledge, and stakeholder interests are dispersed. Participative practices can strengthen detection and acceptance while becoming ineffective if authority boundaries remain ambiguous. The theoretical alternatives are not 'command' and 'consensus' as total systems; they are specific allocations of decision rights, information sharing, review, and challenge under particular risks. Fairness and technical quality are independent evaluation criteria that can sometimes reinforce and sometimes constrain each other (Follett, 1941; Colquitt, 2001).

A fourth debate concerns technology substitution and managerial augmentation. Automated systems may provide useful consistency and substantial productivity gains in particular tasks, but their adoption shifts work toward defining goals, data quality, incident handling, contestation, and assurance. The AI support study by Brynjolfsson et al. (2025) supports task- and workforce-specific augmentation rather than unrestricted managerial replacement. Responsible management should evaluate who obtains the gains, which decisions remain explainable, which skills erode, and whether the system can be safely withdrawn. Technology can improve the operation of a management system without supplying its normative purpose.

5.14.3 Testable propositions and method suggestions

Proposition P1 (interface quality). Among enterprises with comparable task complexity and resources, clearly defined cross-functional acceptance criteria will be associated with lower order-handoff failure, conditional on actual implementation. A suitable design would define failure rates per eligible order and examine longitudinal records; to make a causal claim, implementation timing or assignment would need credible identification. Counterhypotheses include better preexisting management and customer selection.

Proposition P2 (delegation and risk). Delegation paired with explicit decision limits, accessible information, and review will outperform either unchecked delegation or extreme approval centralization on decision delay and traceable error, within a specified risk range. The relation may be nonlinear because complexity and accountability costs increase with decentralization. Comparative designs could exploit staged delegation reforms while controlling for case mix and employee capability.

Proposition P3 (measurement integrity). The relationship between KPI adoption and sustainable operational improvement will be stronger where metric validity, nonretaliatory error reporting, and corrective-action rights are present. This is a moderation hypothesis, not proof that psychological safety causes productivity. Suitable testing would require independent indicators of metric gaming and work quality, alongside employee wellbeing and financial outcomes.

Proposition P4 (digital fit). Digital management systems will deliver smaller or even negative net benefits where data quality, training, infrastructure reliability, and process ownership are insufficient, after full costs and risks are considered. A credible evaluation would measure adoption costs, failure rates, switching losses, and labor effects rather than only software usage. A phased comparative implementation could improve inference but would still need to address nonrandom selection into digital adoption.

Proposition P5 (contextual transfer). Standardized practices transferred from large international firms will yield more favorable outcomes in African micro and small enterprises when their underlying coordination mechanism is adapted to scale and resource constraints rather than replicated in visible form. The empirical question is how to operationalize 'mechanism fidelity' and 'context adaptation' without evaluating success retrospectively. A preregistered comparative intervention with implementation measures would be preferable to post hoc narratives about model companies.

The research agenda also requires attention to gendered division of managerial and unpaid work, informal labor relationships, multilingual communication, state and cooperative accountability, climate-related supply disruption, and the distributive effects of algorithmic systems. Cross-country comparison should align enterprise definitions, ownership types, financial structures, and sector conditions. Rwandan official statistics supply context but cannot alone test individual managerial propositions; suitable tests would require authorized firm-level data, consent and approvals where applicable, valid instruments, and ethically defensible methods. No such primary research is claimed in this chapter.

5.15 ETHICS, PROFESSIONAL RESPONSIBILITY, AND SUSTAINABILITY

Ethical management is not a decorative addition to the four functions. Purpose can be objectionable, a well-organized process can facilitate exploitation, a persuasive supervisor can manipulate, and an accurate control system can track outcomes that should never have been pursued. The relevant managerial obligations include honesty in representations, equitable treatment, safety, protection of confidential information, proportionality

in sanctions, respect for affected people's dignity, and accountability for foreseeable harms. These principles can be defended through rights-based, consequential, stakeholder, and virtue-ethical reasoning, even where traditions disagree about ultimate moral foundations. Empirical assessment remains necessary to determine actual effects; an organization's good intentions do not validate its interventions (Freeman, 1984; Colquitt, 2001).

Sustainability creates intertemporal management demands. Procurement, energy use, workforce safety, waste, and service continuity have financial and ecological consequences that may emerge after an accounting period closes. An enterprise might achieve an immediate delivery target by routinely running partially loaded emergency vehicles, shifting cost and emissions into future periods. Appropriate planning considers total resource requirements, realistic waste and energy indicators, and resilience under climate and infrastructure shocks, but should avoid fabricated carbon estimates or ceremonial commitments. Controls should distinguish directly measured inputs from estimated impacts and should not imply that one enterprise's practices establish regional environmental outcomes. Specialized sustainability theory and reporting appear in Chapter 31.

Professional responsibility includes the courage to revise a plan when evidence contradicts it and to decline an instruction that violates lawful or non-negotiable safety obligations. A manager's discretion should be reviewable, but an excessively punitive environment may encourage concealment, making ethical leadership and information quality mutually dependent. Transparent explanation, proportionate documentation, respectful dissent, and independent challenge are consequently productive controls as well as moral requirements. The dedicated Chapter 34 provides a distinct scriptural examination of business functions under the book's Christian perspective; this chapter remains substantively accessible to readers across confessional and nonconfessional institutions.

There is an important boundary between responsibility and paternalism. A manager may properly insist on legal compliance, safe work and truthful reporting, but should not assume that invoking wellbeing permits unlimited monitoring or unilateral decisions about employees' private lives. A proportionate ethical review asks whether the chosen end is legitimate, whether means are necessary for that end, whether the least intrusive feasible means are available, whether affected people can challenge incorrect assumptions, and whether harms and benefits are distributed acceptably. This permits rigorous criticism both of exploitative productivity practices and of expensive symbolic controls with no demonstrable benefit. Ethical performance is established through the reasoning, procedures and evidence of practice, not a mission statement alone.

5.16 CHAPTER SYNTHESIS AND CONCLUSION

Management is best understood as an organized practice of judgment under constraints, not a universal checklist of interpersonal qualities or an exercise in issuing commands. The historical schools illuminate different mechanisms: scientific management makes work processes measurable; administrative and bureaucratic theories clarify coordination and lawful authority; human-relations and motivational research show the importance of social meaning and work design; systems and contingency theories reveal interdependence and contextual fit; behavioral scholarship limits claims of perfect rationality. Their value is greatest when managers use them as rival explanations for an actual problem, rather than celebrate one school as the final solution.

The management functions of planning, organizing, leading, and controlling remain educationally durable precisely because they answer different questions about collective action. Planning asks what should be pursued and under which assumptions; organizing determines responsibilities and feasible arrangements; leading establishes the conditions for understanding and action; controlling tests experience against commitments and authorizes correction. These functions are simultaneously performed and revised through decision-making and power, and their outcomes depend on cross-functional interfaces. Clear authority without information creates bottlenecks; rich data without decision rights create dashboards without action; ambitious targets without fair supervision invite concealment and gaming.

Evidence from international experiments and microenterprise studies supports the importance of selected management practices while resisting universal effect claims. Rwanda's enterprise structure makes cost-sensitive, context-adapted routines particularly significant, and the Toyota comparator shows how a global company articulates related principles at a different scale. The conclusion is conditional and ethical: management is effective when it creates credible alignment among legitimate purposes, resources, authority, information, human relationships, and correctable action, while remaining answerable to those affected. Chapters 6–8 next examine strategy, organizational design, leadership, governance, and accountability in their own disciplinary depth.

5.16.1 Key insights for consolidation

The first insight is that management and leadership overlap but are not identical: management also concerns systems, delegated authority, and control. The second is that classical management theories are historically valuable but require critical adaptation rather than literal copying. The third is that planning quality depends on goals, assumptions, constraints, and revision triggers, not on the volume of an annual plan. The fourth is that departmental specialization increases the need for explicitly managed interfaces. The fifth is that performance measurement must be valid, balanced, and contestable to avoid gaming and concealment. The sixth is that judgment requires attention to bounded rationality, incentives, and decision rights. The seventh is that AI and digital systems can support management but cannot legitimately replace accountability. Finally, a manager's success must be appraised through organizational viability, stakeholder outcomes, justice, learning, and durable capability, not one simple productivity ratio.

5.17 GLOSSARY OF KEY TERMS

The terminology below consolidates the chapter’s principal operational concepts. Definitions are intentionally concise; their boundary conditions and applications are developed in the corresponding sections.

Term	Operational meaning
Accountability	Duty to explain and answer for an authorized decision and its implementation, subject to appropriate review or sanction.
Algorithmic management	Use of computational systems to direct, allocate, monitor, evaluate or influence work.
Authority	Legitimately assigned power to commit organizational resources or direct action within defined limits.
Balanced scorecard	Framework relating selected financial and nonfinancial indicators to organizational purposes and learning.
Bounded rationality	Decision-making constrained by information, attention, cognition, time and institutional premises.
Contingency theory	Account of managerial effectiveness that depends on the fit between arrangements and task or environmental conditions.
Control	Standards, observation, diagnosis, corrective action and subsequent evaluation of results.
Decision log	Dated record of evidence, alternatives, assumptions, authority, rationale and review conditions.
Delegation	Transfer of specified work and discretion with explicit limits, resources and oversight.
Departmentalization	Grouping activities by function, product, geography, customer, process or another coordination basis.

Term	Operational meaning
Effectiveness	Achievement of justified organizational objectives, interpreted alongside harms, constraints and stakeholder effects.
Efficiency	Resources used in relation to defined outputs or outcomes of specified quality.
Feedback	Information about actual results used to revise subsequent decisions or action.
Feedforward control	Preventive action based on information available before a possible failure materializes.
KPI	Key performance indicator: a clearly operationalized measure used to inform a consequential decision.
Leading	Managerial direction, influence, communication and support for legitimate collective action.
Management	Accountable coordination of people, commitments, resources, knowledge and action toward legitimate objectives.
Organizing	Arrangement of tasks, resources, decision rights, procedures and cross-functional interfaces.
Planning	Specification of purposes, objectives, assumptions, resources, alternatives and revision conditions.
Procedural justice	Fairness of the methods by which consequential decisions are made, explained and challenged.
Psychological safety	Shared perception that interpersonal risks such as raising concerns or admitting errors can be taken without undue punishment.
RACI	Role-clarification convention identifying Responsible, Accountable, Consulted and Informed parties.
Satisficing	Choosing a feasible alternative that meets established aspiration criteria rather than proving global optimality.
Span of control	Number and complexity of a manager's direct reporting relationships.
Systems thinking	Analysis of connected activities, feedback loops, time delays and interdependent constraints.
Variance	Difference between observed and reference quantities, requiring compatible definitions to interpret meaningfully.

5.18 ASSESSMENT, TEACHING GUIDANCE, AND FURTHER READING

5.18.1 Foundational conceptual questions

1. Distinguish management, leadership, governance, and administration, using a cooperative or public organization to show where their responsibilities overlap.
2. Compare Taylor and Fayol with Follett, Simon, and contingency theory on their treatment of authority, worker knowledge, and uncertainty. Identify at least one reasonable boundary condition for each.
3. Explain why meeting a numerical KPI cannot by itself demonstrate effective or ethical management. Propose a safeguard indicator.
4. Define feedforward, concurrent, and feedback control using a documented procurement or delivery process and explain where each can fail.
5. Explain bounded rationality and identify circumstances in which a simple rule improves decisions and circumstances in which it becomes dangerous.

5.18.2 Applied tasks and quantitative exercises

Exercise A: Cost shock and management response (LO3, LO5, LO8). Using Section 5.3's hypothetical data, calculate contribution and operating surplus at 1,000 cases for variable costs of RWF 13,000, RWF 14,000, and RWF 15,000, holding price and fixed costs constant. Recalculate break-even output and discuss what changes if only 700 cases can be reliably delivered. Recommend two operational controls and one worker or customer safeguard. State which conclusions are arithmetic and which require new empirical evidence.

Exercise B: Responsibility design (LO4, LO7). Complete and critique the RACI matrix in Table 5.4 for an order that needs packaging procurement, customer credit approval, dispatch, invoicing, and complaint resolution. Assign a single accountable decision owner for each relevant managerial activity, identify which functions must be consulted before a consequential promise, and document where professional or legal responsibility cannot be superseded by the matrix.

Exercise C: Decision quality (LO5, LO8). A hypothetical branch reports a rise in on-time deliveries from 82% of 400 eligible orders to 90% of 300 orders after introducing a driver-tracking application. Calculate both counts and the percentage-point difference. Identify alternative explanations arising from volume, case mix, promises, selection, and reporting changes. Design a credible evaluation approach and an employee privacy safeguard. Do not claim causality from the observed contrast.

5.18.3 Advanced analysis and integrative capstone

Analytical essay (LO2, LO6, LO7). Assess whether a standardized management-practice intervention shown to improve productivity in an Indian textile plant should be transferred to Rwandan family SMEs. Distinguish the tested treatment, the study population and outcome, possible complementarities, institutional constraints, ownership questions, and ethical safeguards. Compare the evidence with McKenzie and Woodruff (2017) and an applicable official NISR series. A strong answer explicitly addresses selection, external validity, adaptation cost, and the absence of a guaranteed universal effect.

Capstone assignment (LO1–LO8). Design a 90-day management improvement plan for the constructed Umucyo enterprise. Deliver a decision-rights register, at least one completed RACI matrix, an annotated management-cycle diagram, a four-to-six indicator KPI tree with documented denominators and safeguards, a decision log showing two options and assumptions, and a quantitative sensitivity analysis of the given cost shock. Explain how the plan coordinates marketing, procurement, operations, staff, and finance, and specify a credible evaluation method and stopping rule. Include a 1,000-word critical commentary comparing at least three theoretical traditions and identifying which judgments cannot be resolved by arithmetic.

5.18.4 Educator guidance and model-answer criteria

Teaching should proceed from concept identification to competing explanations and then to documented decisions. The capstone can be assessed on five dimensions: theoretical accuracy and critical comparison (25%), functional integration and clarity of decision rights (20%), numerical and measurement accuracy (20%), contextual and evidentiary discipline (20%), and justice, sustainability, and communication (15%). These proposed weights are a pedagogical rubric, not a validated assessment scale or accreditation requirement. An exemplary submission checks arithmetic, labels all assumptions, traces consequences across functions, separates causal claims from descriptive improvements, explicitly identifies regulatory verification needs, and remains ethically defensible under a plausible adverse scenario.

For Exercise A, the RWF 14,000 cost case yields RWF 6,000 contribution per case, RWF 6 million total contribution and RWF 2 million operating surplus at 1,000 cases; break-even is ceiling(4,000,000/6,000) = 667 cases. The RWF 13,000 and 15,000 cases yield 572 and 800 break-even cases, respectively. At 700 cases and RWF 15,000 variable cost, contribution is RWF 3.5 million, resulting in a RWF 0.5 million operating deficit under the same linear assumptions. The exercise should also explain why working capital, payment timing, capacity, and the response of customer demand remain unestimated. For Exercise C, the on-time counts are 328 before and 270 after; the change from 82% to 90% is eight percentage points despite fewer on-time

deliveries in absolute terms. That combination demonstrates the need for denominator discipline and comparable samples.

5.18.5 Further reading

Readers seeking original management foundations should consult Taylor (1911), Fayol (1949), Barnard (1938), Follett (1941), and Simon (1947) comparatively rather than as a single compatible tradition. Mintzberg (1975), Burns and Stalker (1961), Lawrence and Lorsch (1967), and March (1991) deepen understanding of actual work, contingencies, and organizational learning. For empirical studies of managerial practices, consult Bloom et al. (2012, 2013) and McKenzie and Woodruff (2017), keeping their study settings and inferential limits visible. For modern work design and AI, read Edmondson (1999), Locke and Latham (2002), Brynjolfsson et al. (2025), and Tabassi (2023). Rwanda's NISR (2026) IBES 2024 materials should be read with the survey frame and publication information rather than treated as a universal census of all economic activity.

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