

MODERN MANAGEMENT PRACTICES AS DRIVERS OF OPERATIONAL EFFICIENCY AND COMPETITIVENESS IN FOOD MANUFACTURING ENTERPRISES

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Abstract. The thesis proposes that food enterprises should combine operational excellence with adaptive management capabilities. Such a combination is especially important in an industry affected by perishability, demand volatility, regulatory requirements, resource constraints, and changing consumer expectations. The resulting management model supports faster response to market signals, more efficient use of materials and energy, improved coordination with suppliers and distributors, and stronger organisational resilience.

Keywords: food manufacturing, management practices, operational efficiency, agile management, supply-chain integration, sustainability, innovation, resilience.

Competitiveness in the food industry is increasingly determined by the quality of management. Access to machinery, raw materials, and finance remains important, but these resources do not automatically produce superior results. Enterprises must coordinate purchasing, production, quality assurance, logistics, marketing, finance, and product development under conditions of uncertainty. The managerial challenge is intensified by short product life cycles, perishability, variable agricultural inputs, energy and transport costs, and changing expectations regarding health, convenience, traceability, and sustainability.

Modern management practice addresses this challenge by combining operational discipline with adaptability. The purpose of this thesis is to identify the management practices that can most directly influence efficiency and competitiveness in food manufacturing enterprises and to explain the mechanisms through which these practices create value.

Agile management is useful when demand patterns are uncertain and enterprises must respond quickly to changes in product mix, packaging, order size, or distribution channels. In food manufacturing, excessive rigidity can generate obsolete inventories, production delays, and lost sales. Agile management encourages shorter planning cycles, decentralised problem-solving, rapid information exchange, and close coordination between commercial and production units. The objective is not constant change, but the capacity to change efficiently when market conditions require it.

Agility should be supported by flexible production scheduling and modular operational routines. Managers can improve responsiveness by analysing demand at a more granular level, reducing setup times, improving workforce multi-skilling, and creating clear escalation procedures for supply disruptions. The combination of standard processes and flexible execution is especially important because food enterprises must maintain strict quality and safety standards even when production plans change rapidly.

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Food manufacturers are strongly dependent on external actors because product quality and continuity are influenced by farmers, ingredient suppliers, packaging producers, transport companies, wholesalers, retailers, and cold-chain operators. Consequently, modern management must extend beyond the boundaries of the enterprise. Supply-chain integration involves information sharing, coordinated planning, supplier evaluation, collaborative forecasting, and joint problem-solving. These practices can reduce stockouts, improve raw-material quality, shorten replenishment times, and lower total logistics costs.

Resilience has become an equally important management objective. A resilient food enterprise is able to anticipate disruptions, absorb shocks, and restore operations without unacceptable losses. Management can strengthen resilience through supplier diversification, safety-stock policies for critical inputs, alternative transport arrangements, scenario planning, and continuous monitoring of supply risks. The aim is to balance efficiency with redundancy: excessive inventories and duplicate capacity are costly, but an overly lean system may become vulnerable to disruption.

Evidence-based management improves the quality of managerial decisions by reducing dependence on intuition alone. Food enterprises generate large volumes of operational data, including yields, downtime, rejects, temperature conditions, energy consumption, delivery performance, sales patterns, and customer complaints. When these data are structured and analysed systematically, managers can identify root causes, predict deviations, and prioritise interventions with greater precision.

Digital technologies strengthen this approach. Real-time dashboards can connect production, quality, inventory, and sales information. Predictive maintenance can reduce unplanned equipment downtime. Digital traceability can improve recall readiness and supplier accountability. Advanced forecasting can support purchasing and production planning. Nevertheless, technological investment produces limited benefits if management processes remain fragmented. Digitalisation should therefore be accompanied by clear data ownership, standardised indicators, employee training, and redesigned decision routines.

Sustainability-oriented management is becoming central to efficiency because environmental performance and economic performance are increasingly interconnected. Food processing often involves significant consumption of water, energy, packaging, and raw materials, while production losses may generate both financial and environmental costs. Managers can create value by measuring material losses, energy intensity, water use, waste recovery, and packaging efficiency alongside conventional financial indicators. This turns sustainability from a reporting exercise into an operational management tool.

Employee engagement is another essential element. Continuous improvement systems depend on the ability of employees to identify problems, suggest improvements, and follow standards consistently. Managers should therefore develop a culture in which operational employees are treated as sources of knowledge rather than only as executors of instructions. Training, team-based problem-solving, transparent feedback, and recognition of improvement initiatives help convert individual experience into organisational capability.

Innovation management connects these practices with long-term competitiveness. Food enterprises must continuously adapt products, processes, packaging, distribution formats, and business models. Innovation should be managed as a portfolio of initiatives with clear commercial and operational criteria. Cross-functional teams involving marketing, production, finance, quality, and procurement can reduce the risk that new products are designed without consideration of manufacturability, cost, sourcing constraints, or regulatory requirements.

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A practical framework for food manufacturing enterprises can be organised around five interconnected priorities: operational stability, market responsiveness, supply-chain resilience, data-driven management, and continuous innovation. Operational stability provides standardisation and quality; responsiveness ensures alignment with customer demand; resilience protects continuity; data improve decision quality; and innovation supports future growth. Performance indicators should therefore include not only profit and sales, but also yield, waste, downtime, order fulfilment, supplier reliability, product-development speed, energy intensity, employee participation, and customer complaints.

Implementation should follow a staged approach. Management first identifies the enterprise's most important constraints and establishes a baseline. It then selects a small number of high-impact practices, assigns process owners, defines measurable targets, and tests changes in pilot areas. Successful practices are standardised and scaled. This cycle creates an institutional mechanism for continuous improvement and helps prevent management innovation from becoming a temporary campaign.

Modern management practices influence the competitiveness of food manufacturing enterprises through clear operational mechanisms. Agile management improves responsiveness; supply-chain integration strengthens coordination; resilience practices reduce disruption exposure; evidence-based management improves decision quality; sustainability management reduces resource losses; employee engagement supports continuous improvement; and structured innovation strengthens market adaptation. Their combined use enables food enterprises to achieve a more balanced form of competitiveness based on cost efficiency, reliability, speed, quality, adaptability, and responsible resource use. For this reason, management modernisation should be treated as a continuous organisational capability rather than a one-time reform.

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