

HAVRYLYUK V.P.

**INVESTMENT DESIGN AND STRATEGIC MANAGEMENT
OF THE DEVELOPMENT OF SMALL, MEDIUM,
AND AGRARIAN ENTERPRISES**

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The monograph systematizes the theoretical foundations and applied tools of investment project design and strategic management for the development of small, medium-sized and agrarian enterprises under wartime challenges and Ukraine's European integration. It conceptualizes the investment project as an instrument for transforming the business model and aligning corporate strategy, business processes, financial decisions and performance measurement systems. Based on empirical analysis and case-study modelling of real enterprises, the book provides comprehensive strategic, financial and investment insights and formulates practical recommendations for improving capital allocation, portfolio management and organizational resilience. The monograph is primarily intended for managers and project management professionals, executives of small, medium-sized and agrarian enterprises, as well as for researchers, lecturers, PhD students and students in economics, management and agribusiness.

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INTRODUCTION

Since 2022, Ukraine has been operating in an extremely volatile environment shaped by full-scale war, accelerated European integration and structural shifts in global value chains. Under these conditions, small, medium-sized and agrarian enterprises play a critical role in sustaining employment, ensuring food security, supporting local communities and generating investment demand. Their capacity to design and implement sound investment projects, modernize production and build resilient business models has become a key determinant of the country's long-term competitiveness.

At the same time, investment decisions in the SME and agri-food sectors are made under severe capital constraints, regulatory uncertainty and high operational risks. In many enterprises, strategic planning is fragmented, investment analysis is reduced to basic financial calculations, and there is a weak linkage between investment decisions, business-process management and performance indicators. This gap highlights the need for an integrated approach to investment project design and strategic management that connects strategy, processes, finance and risk management in a single framework.

The aim of this monograph is to develop and substantiate a conceptual and applied framework for investment project design as an instrument of strategic development for small, medium-sized and agrarian enterprises in Ukraine. The study focuses on the theoretical foundations of investment management, the alignment of investment projects with corporate strategy and business processes, and the evaluation of investment efficiency in conditions of uncertainty and post-war recovery.

The object of the research is the system of investment and strategic management processes in small, medium-sized and agrarian enterprises. The subject of the research comprises theoretical principles, organizational and economic mechanisms, and practical tools for integrating investment project design into strategic and operational management. The methodological basis of

the monograph includes systemic and structural analysis, strategic and financial analysis, business-process modelling, risk assessment, and case-study methods.

The empirical part of the research is based on two detailed case studies: a logistics and distribution company (DON TERMINAL LLC) and an agrarian enterprise (AF “Velykyi Khutir” LLC). Their analysis makes it possible to test the proposed framework in different business models – service and production, urban and rural, national and local. On this basis, the monograph formulates practical recommendations for improving investment management systems, strengthening strategic resilience and enhancing the efficiency of capital use.

The results of the research are intended for academics, policymakers and practitioners interested in investment management, strategic development and agribusiness. The proposed approaches and tools can be used by managers of small, medium-sized and agrarian enterprises when preparing business plans and feasibility studies, designing investment programmes and improving systems of strategic and operational performance management.

CHAPTER 1. THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF STRATEGIC AND INVESTMENT MANAGEMENT OF ENTERPRISE DEVELOPMENT

1.1. The essence of strategic management and its role in enterprise development

In modern management, strategy is interpreted as a coordinated system of long-term decisions and rules that determine the vector of enterprise development and the way to achieve competitive goals in conditions of uncertainty and resource constraints [9]. For small, medium-sized and agricultural enterprises, this interpretation is especially important: in the face of capital shortage and unstable demand, strategy sets a framework of priorities (which markets to choose, which products to scale, which processes to change first), allowing to avoid reactive “solving” problems and move to managed growth.

The evolution of scientific approaches offers three vectors for defining strategy:

- classical (rational-planned) – emphasis on formalized selection of goals, positioning, and long-term action programs;
- process (evolutionary-procedural) – focus on iterative formation and adjustment of decisions in the process of organizational learning;
- systemic (integrative) – a view of the enterprise as an open system, where the strategy aligns markets, business model, resources, processes and institutional environment [25; 18].

In our study, the system approach is fundamental, as it naturally connects investment planning with strategic development management. In applied terms, this means: (1) the strategy sets the target profile of the business model (value proposition, channels, cost/income structure); (2) the investment cycle serves as a tool for implementing this model through a sequence of pre-investment, investment, and operational decisions; (3) business process management converts

investments into operational results (productivity, quality, speed) that underpin competitive advantages [25; 18].

For SMEs and agricultural producers, this has three direct consequences. First, prioritization: we focus limited resources on initiatives that strengthen positioning the most. Second, adaptability: process logic requires short cycles of hypothesis testing (marketing, technology, logistics) to reduce strategic risk without losing course. Third, level consistency: corporate guidelines (growth goals, risk appetite) must correspond to the business level (competitive strategy) and functional policies (investments, production, sales) so that investment projects do not “fall out” of the overall trajectory [9; 25].

Generalized characteristics of the three approaches – objectives, mechanisms, result indicators and typical implementation risks for SMEs and the agricultural sector – are presented in Table 1.1.

Table 1.1

Formation of scientific concepts of enterprise strategy in a historical context

Approach	Representatives	The essence of the approach	Main limitations
Classic	AND. Chandler, I. Ansoff, A. Sloane	Strategy is seen as a logically structured plan aimed at profit	Ignores the dynamics of the external environment and the role of human resources
Process	G. Simon, R. Sayerta, J. March	Strategy is formed on the basis of practical actions, not pre-made plans	Lack of systematic planning, limited forecasting
Systemic	M. Granovetter, R. Sveberg, R. Whittington	Focuses on the relationship between the internal potential of the enterprise and external changes	Takes into account the impact of the environment, combines planning with adaptability to environmental realities

Source: constructed by the author based on [56, pp. 16-31]

Despite the prevalence of system optics in modern works, there is no scientific consensus on the definition of enterprise strategy: different schools emphasize different aspects - from goals and positioning to decision-making

procedures and organizational dynamics [9; 25]. A generalization of the latest sources allows us to distinguish three working approaches to understanding strategy that are actually used in the management practice of SMEs and agribusiness:

- The target approach treats strategy as a system of long-term guidelines and priorities that determine the desired state of the enterprise and the framework for resource allocation (what we do and why) [9].
- Behavioral (as a way of acting) focuses on decision patterns and consistent “rules of the game” that are formed in the process of interaction with the market and the environment (how we act, how we adapt) [25].
- Documentary (as a formalized plan) emphasizes the role of artifacts – strategic plans, programs, and policies that institutionalize goals and mechanisms for achieving them (how we formalize and communicate choices) [18].

Each of the approaches has its own theoretical basis, different requirements for data and processes, as well as specific application risks (for example, “targeted” - the risk of separating goals from operations; “behavioral” - the risk of excessive reactivity; “documentary” - the risk of formalism without action). The generalized characteristics of the three approaches are given in Table 1.2 [9; 25; 18].

Table 1.2

Current scientific concepts of interpreting enterprise strategy

Approach	Theoretical justification	Authors	Definition example
1	2	3	4
Target	The strategy is seen as a guideline for	S.V. Filina, O.V. Driga,	Enterprise strategy is the process of forming

Continuation of table 1.2

1	2	3	4
	achieving a certain system of goals	O.V. Kuzhel	long-term development direction, based on defining new goals, harmonizing internal resources with external environmental conditions and implementing appropriate measures [9, p.121]
Method of action	Strategy is interpreted as a set of behavioral models and tools of influence	T.V. Dedilova, I.I. Tokar	Strategy is a set of actions, rules and approaches that allow an organization to achieve its long-term goals [25, p.8]
Planning document	The strategy is considered as a formalized comprehensive plan for the development of the enterprise.	K.V. Pastukh	The organization's strategy is a comprehensive systemic document containing measures to implement the mission and achieve the set goals [18, p.11]

Source: constructed by the author based on [9; 25; 18]

An expanded overview of modern interpretations of the concept of “strategy” is given in Appendix A. At the same time, its content and purpose are not universal: they vary depending on the type of enterprise, industry, intensity of competition, resource constraints and current market positions. Therefore, strategic guidelines in real management are not a “static template”, but a set of goals and selection rules that adapt to the context and time horizons [25; 18].

For SMEs and agricultural producers, it is advisable to structure the system of goals in three complementary areas:

- Competitive goals: expanding market presence, strengthening positioning, building and maintaining sustainable competitive advantages, developing a brand and loyalty programs. Their logic is “what positions do we want to occupy and at what cost to maintain them?” [9; 25].
- Product innovation goals: updating the range, launching new products/services, implementing technological and logistical innovations, optimizing interaction with suppliers/partners. The

focus is on “how to maintain the relevance of the market value proposition” [18; 25].

- Financial goals: growth in revenues and profitability, increased asset efficiency, improved liquidity and investment attractiveness in the long term (through agreed KPIs and financial policies) [9; 18].

In a changing environment, strategy performs two critical roles: (1) it reduces sensitivity to external shocks through prioritization and scenario thinking; (2) it allows for the transformation of external opportunities into manageable growth programs (through investment projects, a portfolio of initiatives, and business process adjustments) [25; 18]. Thus, strategy is not just a “vision,” but the operational architecture of the future enterprise that coordinates internal efforts for defined results.

Marketing strategy occupies a central place in this list. By its nature, it is portfolio: it combines decisions on products/categories, target segments, distribution channels and service standards. Its effect is to form and maintain demand, increase consumer loyalty and clear positioning in the market; it is it that serves as a “bridge” between strategic priorities and behavior in the market (pricing, promotion, channels, service) [5].

For further analysis, a generalized classification of strategies according to three criteria is useful:

- scale of implementation (at the enterprise / strategic business unit / function level);
- duration of the horizon (short, medium, long term);
- mechanism for achieving advantages (price leadership, differentiation, focus/niche, hybrid configurations).

The visualized structure according to these criteria is shown in Fig. 1.1; it will serve as a “map” for further substantiation of development directions and selection of appropriate investment decisions [25; 18].

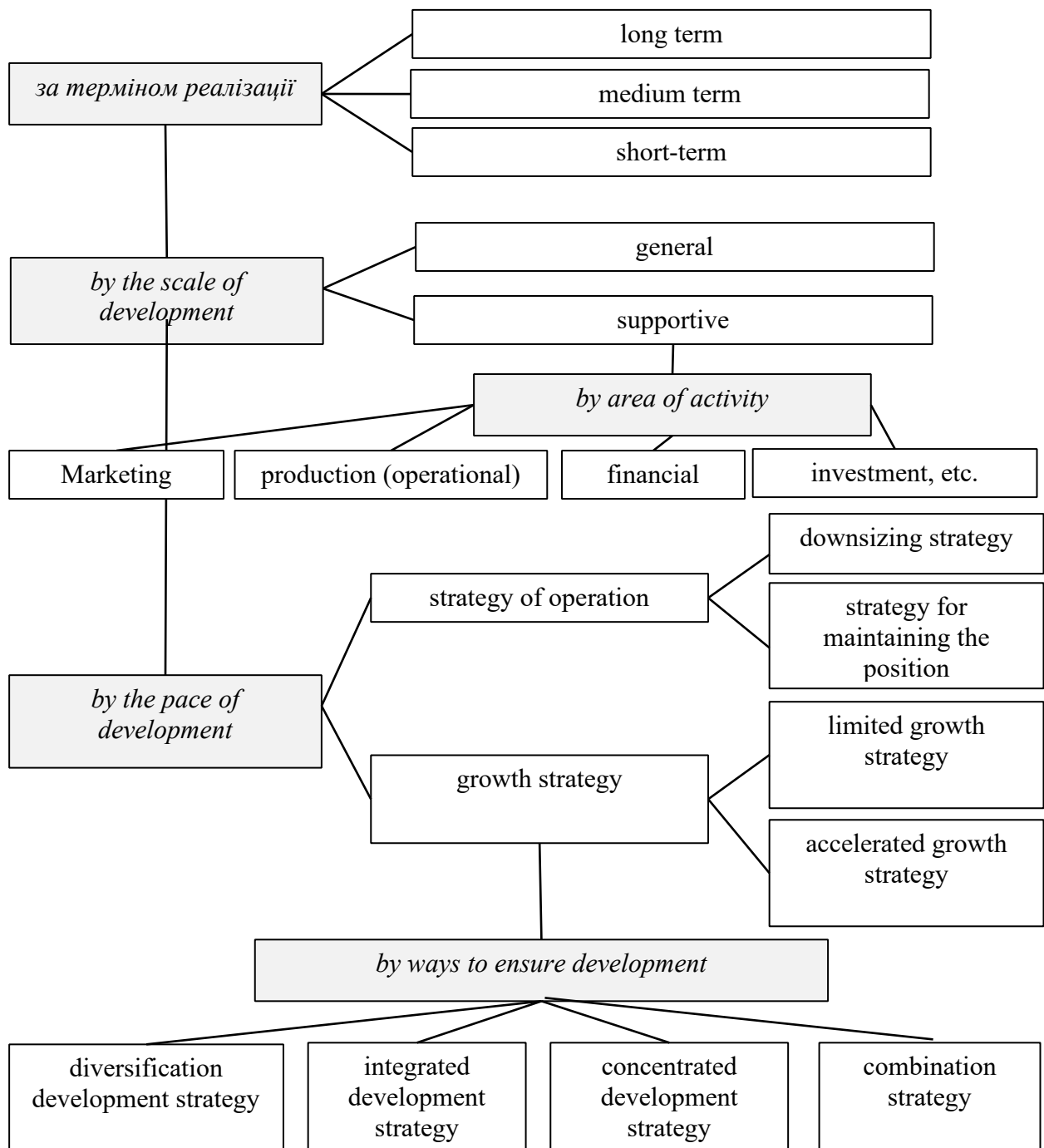


Fig. 1.1. Strategic structure of the enterprise.

Source: constructed by the author based on [25; 18]

In the structure of corporate and business strategies, growth strategy occupies a central place, especially in dynamic market conditions, where the speed of adaptation directly affects competitiveness [25; 18]. In modern approaches to enterprise strategy, two basic growth modes are distinguished:

- limited (moderate) growth – an orientation towards the evolutionary increase of results according to the principle of “from the available to the possible”, when planning guidelines are built on the achieved trajectory and stable assumptions about the environment;
- accelerated (expansive) growth – a focus on intensively increasing market and financial indicators in short horizons in fast-growing or new markets; requires increased flexibility, innovative capacity and readiness for risk volatility [18; 25].

Both modes are implemented through a set of approaches to ensuring development. Next, we will focus on concentrated growth, when a firm develops within an already mastered industry without a radical change in its activity profile (which is typical for SMEs and resource-constrained agricultural producers) [5; 25].

Types of concentrated growth strategies:

- Strengthening market positions (market penetration): gaining a share in an already developed market through an active marketing policy, improving quality, reducing costs, adjusting the pricing model; in mature segments, an element of horizontal integration (alliances/mergers with competitors) is possible for the effect of scale and synergies [5; 25].
- Market development: entering new geographies, new segments, or new sales channels (including omnichannel) with existing products. The goal is to open up “growth points” without changing the product line, but with the adaptation of service and logistics [18].
- Product development: creating new positions or modifying existing ones with promotion in an already developed market. This approach increases the relevance of the value proposition, stimulates demand and allows for growth without reorganizing the market infrastructure [41, p. 42; 5].

The practical logic of choosing between the three trajectories boils down to aligning: (1) current position (share, demand elasticity, brand strength), (2) resource constraints (capital, data, channels, processes), and (3) risk appetite (readiness for rapid iteration, tolerance for failure in new segments). In our study, we further link this logic to a portfolio of investment initiatives and business process requirements (operational readiness, analytics, logistics) so that the growth strategy is not just a declaration, but a managed implementation plan [25; 18; 5].

The growth strategy is implemented through a coordinated set of development mechanisms that correspond to the internal capabilities of the firm and external challenges. The key choice - between moderate and accelerated growth - is determined by the ratio of (a) resource constraints, (b) risk appetite and (c) time horizons for achieving results. It is this triad that determines the trajectory that ensures sustainable functioning and long-term competitiveness [25; 18].

In practice, SMEs and agricultural producers often prefer concentrated strategies, as they allow them to scale an already established business model without a radical change in profile. The logic is simple: maximize the potential of the existing product/market, relying on accumulated expertise, assets and sales channels [25; 5]. The choice of a specific configuration depends on two binary cuts – product type (traditional / new) and market type (traditional / new) – which sets four basic scenarios.

1) Traditional product × traditional market (strengthening market positions).

The focus is on increasing volumes and share in the already mastered segment through a more intensive marketing policy, improving quality, optimizing costs and correcting the pricing model; in mature markets, alliances or elements of horizontal integration are possible for economies of scale [5; 25]. Critical KPIs: share growth, customer retention rate, margin.

2) New product × traditional market (product development).

The goal is to create/modify the offering for an already known customer base, while maintaining the existing market infrastructure. Conditions for success: rapid validation of the value proposition, operational readiness for small-scale launch and scaling, product portfolio management [41, p. 42; 5]. Risks: errors in demand assessment, cannibalization of old lines.

3) Traditional product × new market (market development).

It is about entering new geographies, new segments or new channels with the existing range. Localization of the service, logistical adaptation and revision of communications are required. Reference points: speed of revenue generation in new channels, CAC/LTV by segments, logistics costs per unit of sale [18; 5].

4) New product × new market (expansive accelerated growth scenarios).

The most resource-intensive and risky configuration: requires the ability to quickly create demand in different segments and build sales channels in parallel. Requires short iterations of hypothesis testing, a portfolio approach to investments, and clear decision-making “gates” (go/kill) [18; 25].

Regardless of the scenario, concentrated growth is usually accompanied by:

- expanding the range and increasing the number of product categories;
- strengthening market positions through branding, service and channels;
- development of own sales networks or omnichannel configurations – for deeper coverage of existing and adjacent markets [5].

To make these strategies work as a managed implementation plan, our study further links them to: a portfolio of investment initiatives (prioritized by impact on competitive advantage and financial performance), business process requirements (operational readiness, analytics, logistics), and a KPI system at the

product/channel/segment level. Such a link minimizes the risk of formalism and ensures the transition from declarations to measurable results [25; 18; 5].

Along with concentrated trajectories, enterprises apply integrated growth strategies, where scaling is achieved through the expansion of control in the value chain - "up" to suppliers or "down" to sales/customers. Their choice is appropriate when the bottlenecks of development lie outside their own processes and are eliminated precisely by institutional expansion [25; 18].

1) Reverse vertical integration.

The goal is to control supply (raw materials, components) through the creation/merger of relevant divisions or companies. Expected effects: reduced dependence on suppliers, lower volatility of purchase prices, increased controllability of quality and rhythm of production. Key risks: capital intensity, management complexity, possible conflicts of interest in multi-level structures [41, p. 43; 18].

2) Direct vertical integration.

Focus – control of distribution, sales, service and access to the end consumer (own sales offices, distribution centers, retail chains). Effects: improved service quality, faster feedback from the market, savings on intermediaries and strengthening the brand. Risks: need for specialized competencies in retail/logistics, operational complexity and working capital requirements [41, p. 43; 5].

In practice, the choice between concentrated and integrated trajectories should be based on a diagnosis of internal potential, the structure of the industry chain and the readiness for organizational transformation. Flexible combinations (e.g. concentrated growth + direct integration in key channels) often provide a better risk profile and sustainability in the long term [25; 18; 5].

A separate block of strategies is diversified growth, which becomes relevant when the potential within the existing product/market is exhausted or external risks require the distribution of dependencies. Diversification combines

both technical and technological and organizational changes and requires a portfolio approach to investments [18; 5]. In the scientific literature, three basic configurations are distinguished:

1) Centered (central) diversification.

New products/directions are “grown” around the core, using existing competencies, technologies and infrastructure. Strengths – synergy (shared resources, channels, data), lower transaction costs, faster time to market. Risks – excessive dependence on the core and internal competition for resources [41, p. 43; 25].

2) Horizontal diversification.

Launch of products/services that are technologically different from the basic ones, but focused on related segments or the same market. The goal is to expand the value proposition for an existing customer, reduce the risk of narrow specialization. Important conditions are the ability to cross-sell, adapt channels and service models [41, p. 43; 5].

3) Conglomerate diversification.

Entering non-adjacent industries/markets without technological or market connection to the core business. Advantage – risk dispersion between independent revenue streams; challenges – lack of domain expertise, complexity of portfolio management and risk of “blurring” focus [41, p. 43; 18].

To ensure that diversification creates value and not just increases complexity, in our research we link it to three operating rules:

- an investment portfolio with clear decision “gates” (go/hold/kill) and prioritization by impact on strategic benefits;
- readiness of processes and data (from supply to sales) for scaling new areas;
- KPIs of multi-level consistency (corporate - business level - functions) to avoid formalism and ensure measurable results [25; 18; 5].

In conclusion, the considered growth trajectories – concentrated, integrated and diversified – ask “where and how” to move; then the question arises “how to implement it in a managed way”. Here, strategic planning comes into focus as a process that transforms the chosen course into a portfolio of initiatives, budgets, roles and indicators. This approach allows not only to adapt to changes and reduce dependence on a single product/market, but also to consistently open new sources of income, maintaining consistency between management levels.

We understand strategic planning as a cyclical process of designing the future of an enterprise: mission and long-term goals are formulated, performance criteria and implementation mechanisms are defined; decisions are made on resource allocation, a rhythm of monitoring and course correction is established, and the team is mobilized under clear roles and responsibilities. In practice, this means moving from a list of intentions to a managed portfolio of initiatives: each initiative has a goal, expected impact, budget, timeline, owner, go/hold/kill “gate” and a set of KPIs.

In order not to lose integrity, we decompose the solution into three levels:

- Corporate: determines the fields of activity, business portfolio, and investment priorities (where we play and with what risk appetite).
- Business level: sets the method of competition in the selected segment (how we win – price leadership, differentiation or focus; what value we create for the customer).
- Functional: translates the course into processes, budgets, data, and metrics in marketing, manufacturing, finance, logistics, and IT (which ensures daily execution).

This division gives the effect of optimal resource allocation. If the course is chosen for new products, priority is given to R&D, pilots (MVP), marketing launches, personnel training, technical re-equipment. If the development of markets, then investments are shifted to sales channels, service localization, last-mile logistics and integration with distributors. In concentrated scenarios, the

emphasis is on productivity and quality through business process management and analytics; in integrated scenarios, the emphasis is on vertical control of supply/sales and compatible IT platforms with counterparties. In diversification, portfolio planning, synergies with the core and rapid iteration of hypotheses become crucial.

Finally, strategy serves as a coordinating mechanism: it aligns investments with priorities, reduces strategic risk, and translates intentions into measurable results. Later in the section, we detail how the chosen growth trajectories are translated into the investment cycle (pre-investment, investment, and operational phases), as well as what business process management tools ensure the operational implementation of strategic decisions.

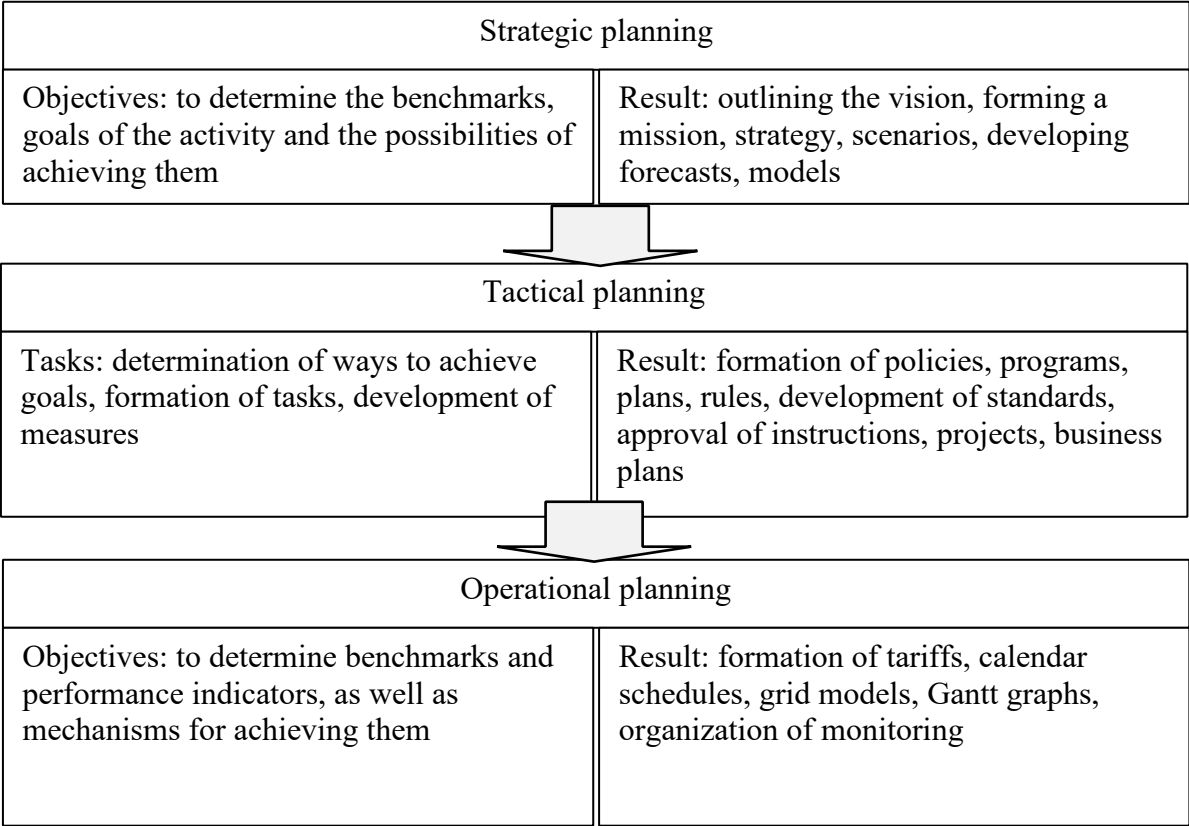


Fig. 1.2. Tasks and results of enterprise activity planning

Source: constructed by the author based on [46, p.403]

In an environment of constant turbulence, strategic vision becomes the foundation of planning and the “framework” of management decisions. Strategic planning is not a one-time declaration, but a cyclical process of constructing the future of the enterprise: the mission and long-term goals are formulated, performance criteria are set, implementation tools are determined; decisions are made on resource allocation, monitoring and course correction are built, and the team is mobilized (roles, responsibilities, rules of interaction). In practice, this means moving from general intentions to a portfolio of initiatives with clear results, budgets, deadlines and “gates” for decision-making.

The transition to a systemic strategic approach is determined by factors that can be reduced to four blocks (summarized based on [16, p. 29]):

1. Dynamics of the environment and competition.

The need for rapid response to changes in the internal and external environment; increasing intensity of competition; internationalization of business, which expands the geography of activity and complicates the choice.

2. Coordination and portfolio thinking.

The need to coordinate different directions (especially in the context of diversification and decentralization), maintain and develop existing advantages, and transparently prioritize investments between products, markets, and projects.

3. Organizational capabilities and culture.

Formation of a professional management core capable of thinking long-term; progress from intuitive management to the use of modern tools (roadmaps, OKR/KPI, portfolio review); establishment of the principles of openness, transparency, and long-term vision.

4. Data, analytics and innovation.

The growing availability of information resources and analytics for in-depth analysis of internal potential and market landscape; activation of innovation processes that require rapid strategic response and flexible hypothesis testing.

The strategic planning process itself should be structured as a regular cycle with a fixed "cadence": annual update of the strategic map (goals, growth targets, risk limits) - quarterly reviews of the portfolio of initiatives (prioritization, resource reallocation) - monthly operational performance reviews (KPI/OKR, bottlenecks, corrective actions). This synchronizes three levels of decisions:

- corporate (where we play and how we invest),
- business level (how we compete and create value),
- functional (how we ensure implementation – processes, data, budgets, indicators).

The result is a coordinating mechanism: the strategy aligns investments with priorities, translates selected growth trajectories into measurable action programs, and reduces strategic risk, increasing adaptability and sustainability of development.

An effective planning system is based on a coordinated cascade of three levels: strategic, tactical and operational. It is strategic planning that sets the “framework” – it defines the field of activity, long-term goals, resource allocation rules and decision-making thresholds; tactical programs and operational implementation plans “descend” from it [46, p. 403]. In such a cascade, each level has its own artifacts: a strategic map and a portfolio of initiatives - tactical programs/road maps - operational plans, schedules, budgets, KPIs.

The goal of strategic planning is to establish long-term guidelines that are realistic and appropriate given market conditions and resource constraints. The result is the company’s ability to sustain growth, adapt to external changes, and maintain competitiveness through the rational use of resource potential [38]. In practice, this means: (1) a vision/mission that focuses efforts; (2) measurable goals (OKR/KPI) with responsible parties; (3) a portfolio of initiatives with go/hold/kill “gates”; (4) a rhythm of monitoring and course correction.

Accordingly, the core of strategic planning tasks can be presented as the relationship "goal - indicator - policy/process". In agreement with your list, we

offer an operational formulation of each task and indicators that "land" it in daily work [37, p. 268]:

- Growth of share in the target market - indicators: market share in key segments, penetration/retention intensity; policies: prioritization of segments, promo and trade marketing budget.
- Demand identification and forecasting - indicators: forecast accuracy (MAPE), speed of plan updates; processes: S&OP, regular sales/channel data reviews.
- Improving product quality - indicators: percentage of returns/complaints, compliance with standards; processes: TQM/Lean, control of critical quality points.
- On-time delivery - indicators: OTIF/On-Time Delivery, average order fulfillment cycle; processes: capacity planning, production-logistics synchronization.
- Coordinated pricing policy - indicators: gross/operating margin, demand elasticity; processes: pricing rules by segments/channels, competitor monitoring.
- Positive image and reputation - indicators: NPS/CSAT, repeat purchase rate, media index; processes: service standard, loyalty programs, brand communications.

To link planning levels, it is advisable to formalize:

- cascading goals (from strategic to team),
- responsibility matrix (RASCI) for key initiatives,
- feedback loops (monthly/quarterly KPI and portfolio reviews) and a scenario correction mechanism (trigger-based planning).

As a result, strategic planning becomes a coordinator between conception and execution: it provides logic and sequence of actions, flexible redistribution of resources to changing conditions and increased competitive stability of the

enterprise. This is how we guarantee that the formed guidelines do not "hang" in the strategy, but are converted into operational results.

In modern practice, strategic planning serves as a tool for constructing the desired future of the enterprise: development vectors, priorities, and a model for achieving goals are outlined - through a portfolio of initiatives, budgets, roles, and indicators. It is not just about developing plans, but about the full cycle: goal setting - implementation - monitoring - course correction - re-planning with the involvement of the entire team (cascading goals and responsibilities).

In crisis conditions (particularly during military conflicts), this cycle becomes a matter of survival. Destabilizers affect both operations and strategy: disruption of logistics, loss of access to markets, personnel "failures", increased security costs, limited access to financing. The total effect is a decline in production and liquidity, erosion of competitiveness, and in critical cases, a shutdown of operations. Therefore, the core of planning becomes an adaptation strategy designed to maintain functional stability today and ensure transformation to new realities tomorrow.

In practice, the adaptation strategy is based on three blocks of solutions.

1) Supply and distribution chains: diversification and multi-channel.

- Alternative suppliers and materials (including local ones), backup logistics routes, contractual "insurance" conditions.
- Multi-channel sales systems (omnichannel, marketplaces, own e-commerce, affiliate networks) to reduce dependence on bottlenecks.
- Operational switch triggers: Predefined conditions under which backup channels/routes are activated to minimize downtime.

2) Business model flexibility: rapid iterations and portfolio reassembly.

- Working modes (remote/hybrid), outsourcing of non-core functions, redistribution of capacities.

- Product changes: rapid validation of demand (MVP/pilots), modification of lines to meet new needs, "conversion" of production to meet high-demand goods/services.
- New sources of revenue: service models, subscriptions, after-sales, asset rental/sharing, contracts with guaranteed buybacks.

3) Financial sustainability: managing flows and access to capital.

- Anti-crisis cash discipline: short cash flow planning cycles (13-week cash forecast), payment prioritization, limits.
- Reserve funds and insurance instruments, working with government support programs/grants, reviewing terms with creditors and suppliers.
- Strategic investors/partnerships: joint investment agreements, pre-financing of orders, factoring/forfeiting to reduce liquidity gaps.

To make these decisions manageable, they should be immediately "sewn" into the two operational frameworks of the section:

- Investment cycle. Pre-investment phase – rapid assessment of the viability of initiatives (impact on revenue/liquidity, capital intensity, payback period), “go/hold/kill” decisions. Investment – minimally sufficient investments with control milestones. Operational – measurement of effects, comparison of “plan/fact”, decisions on scaling or winding down.
- Business process management. Reconfiguring critical processes (supply–production–sales–service), reducing cycles, increasing data transparency, setting SLAs and KPIs for teams and contractors, regular reviews of “bottlenecks.”

For SMEs and agricultural producers, low-threshold mechanisms are additionally important: cooperation in procurement and logistics (joint warehouses, "cold chains"), collective service centers, cluster solutions in marketing; as well as crop/asset insurance, hedging of key price/currency risks.

Strategic planning in a crisis is a disciplined cycle of adaptation, where priorities, resources, and processes are linked into short iterations of hypothesis testing. This is the architecture that reduces reaction time, reduces strategic risk, and creates the conditions for managed recovery and growth after a shock.

The vector of digitalization and automation becomes the core of operational resilience. The implementation of ERP/MRP and financial planning modules, cloud services, project/portfolio management systems (PM/PPM), data-driven analytics and AI modules (demand forecasting, inventory optimization, anomaly detection) removes the limitations of physical presence, shortens the “plan - act - correction” cycles and reduces dependence on the human factor. At the same time, omnichannel sales models (e-commerce, marketplaces, own online storefronts, B2B portals) open up additional sources of income and increase resilience to local disruptions in traditional channels.

In times of crisis, risk and security management should operate as a separate circuit. Basic practices include:

- Cybersecurity (data backup, multi-factor authentication, network segmentation, access policies, incident response plan).
- Physical security (fortification of facilities, emergency protocols, evacuation plans, interaction with government/humanitarian structures).
- Personnel safety and retention of key personnel (flexible schedules, relocation, support programs, psychological assistance, "anchor" contracts).
- Operational reserves (safety stocks, duplication of critical suppliers/routes, hot/warm backup sites).

The synthesis of these solutions forms the systemic architecture of anti-crisis management: flexibility, diversification, financial discipline, digitalization,

active risk management. It is multi-vectority that allows not only to survive, but also to lay the foundation for recovery and growth in the post-crisis period.

Despite the complexity of martial law, strategic planning remains relevant – but requires shortened iterations and a willingness to revise guidelines. Choosing a growth trajectory remains a basic decision, which can be implemented in three ways:

- Concentrated growth – deepening presence in already developed markets through increased productivity, quality, service and accuracy of execution (OTIF), as well as targeted product innovations.
- Integrated growth – strengthening vertical control through cooperation/integration with suppliers and distributors, joint investments in warehouses, cold chains, IT integration (EDI/API).
- Diversified growth – launching related or new directions, entering geographies with a lower risk profile, service models, and after-sales monetization.

To ensure that these trajectories are managed and executed in crisis conditions, it is advisable to immediately “attach” them to:

- investment cycle (rapid pre-investment assessments, minimally sufficient investments with milestones, scaling decisions),
- process map (reconfiguration of critical supply-production-sales-service processes, SLAs for internal teams and contractors, regular reviews of “bottlenecks”),
- KPI/OKR cascade (from corporate to team) with clear correction triggers.

Success depends on managerial competence and the ability to think strategically under the pressure of uncertainty: short decision cycles, discipline of execution, transparent data, communication of goals and responsibilities. In such a configuration, strategic thinking becomes not just a tool - but a condition of survival and a source of restoring competitive positions in the medium and long term.

Thus, the strategy in our study appears not as a static document, but as a guided logic for choosing a growth trajectory – from concentrated to integrated and diversified – with clear rules for resource allocation and operational support. It is the combination of a strategic vision with a portfolio of investment initiatives, managed business processes, digital tools and risk management discipline that allows SMEs and agricultural producers to remain resilient in a turbulent environment (including military shocks), transform vulnerabilities into growth points and convert intentions into measurable results.

1.2. Features of strategic planning for development in modern conditions

In today's dynamic environment, marked by high uncertainty, globalization of markets, rapid technological changes and political-military risks, strategic planning from a "good practice" is turning into a basic mechanism for the viability of the enterprise. Its content goes beyond the traditional "multi-year plan" and acquires the features of an adaptive, data-driven and scenario-based management system that synchronizes vision, portfolio of initiatives and daily execution.

Key requirements for strategic planning today:

- Adaptability and scenario-based. The strategy should be designed as a set of alternative routes (baseline / downside / upside) with clear switching triggers and predefined “rules of the game” regarding resources and priorities.
- Portfolio approach. Instead of disparate initiatives, a single portfolio where each project has a targeted impact, budget, owner, time milestones, and control points.
- Cross-functional synchronization. Coordinated work of corporate, business and functional levels; combining strategic goals with S&OP/IBP processes, budgets and OKR/KPI.
- Data and analytics. Decisions are made based on systematic monitoring of external/internal indicators, digital dashboards, and short iterations of hypothesis testing.
- Institutional compatibility. Taking into account regulatory frameworks, transparency standards, partnership requirements, and access to financing (state support, grants, investment contracts).
- Behavioral “decision hygiene.” Preventing biases (confirmation, status quo, sunk cost) through premortems, “red team” reviews, and formalized prioritization criteria.

Modern external analysis goes beyond a one-time PESTEL/5 Forces assessment. An early warning system is needed that monitors: changes in regulatory and trade regimes; availability and cost of critical resources (energy, logistics, raw materials); behavior of key competitors and emergence of substitutes; dynamics of consumer patterns; security risks and force majeure factors. For Ukrainian SMEs and agricultural producers, seasonality, weather/energy risks, logistics (port/border), currency volatility, as well as the possibilities of cluster and cooperation models (joint warehouses, "cold chains", export consortia) are additionally critical.

Internal analysis: dynamic capabilities and readiness to scale

The assessment of the internal environment should answer the question “what and how are we able to scale tomorrow?” Along with the classic blocks (organizational structure, financial stability, productivity, culture, motivation), the emphasis is shifted to:

- business process maturity (plan/actual deviations, bottlenecks, SLAs);
- data readiness (availability, quality, speed of data, analytical competencies);
- capacity and supply chain flexibility (alternatives, reconfiguration);
- innovation capacity (MVP/pilots, iteration speed, R&D partnerships);
- human capital (key roles, succession plan, development programs).

Effective strategic planning today is a rolling cycle with a fixed cadence: annual update of the strategy map (goals, risk appetite, strategic themes for 12–18 months), quarterly portfolio reviews (advantages/trade-offs, resource reallocation), monthly operational reviews (KPI/OKR, bottlenecks, corrective actions). Such an organization “stitches” strategy with execution and reduces the lag between signal and action.

Instead of one “base” route, a set of scenarios with trigger indicators (prices/margins, OTIF, exchange rate, capacity utilization, credit availability, level of risk in logistics) is formed, which automatically initiate a review of priorities: suspension of capital-intensive initiatives, acceleration of product pilots, switching sales channels, etc. For the agricultural sector, yield/moisture, export window, transport shoulders, fuel/fertilizer prices are added to the triggers.

Digital strategy is integrated into the overall plan: ERP/MRP + financial planning, PPM/PM for the portfolio, CRM/CDP for customer data, BI/AI analytics (demand forecasting, inventory/route optimization, anomaly detection), e-commerce/omnichannel for sales. Mandatory contours are data governance

(ownership, quality, security), cyber resilience (redundancy, MFA, network segmentation, response plans) and staff training.

Strategic intentions are translated into an investment cycle: pre-investment phase (screening and prioritization by impact/risk/return), investment (minimum sufficient investment with control milestones), operational (measurement of effects, decision to scale/wind down). For SMEs, short cash forecast horizons (13 weeks), scenario budgets, factoring/grants/support programs, co-investment agreements are important.

Our research places special emphasis on three types of mechanisms that are “built into” planning:

- Behavioral: premortems, "red teams", decision-making standards to reduce cognitive biases.
- Informational: unified dashboards, transparent metric rules (North-Star, KPI tree), data validation and version control.
- Institutional: compliance policies, transparency standards for investors/donors, partnership templates (clusters, cooperation, government programs).

In addition to financial metrics (revenue, margin, ROCE), leading indicators are recorded (cycle speed, time to market, forecast accuracy, NPS/CSAT, quality/failures, OTIF). At the organizational level, learning rate is measured: average iteration duration, share of initiatives that passed the “gate”, time from hypothesis to scale.

In conditions of war, global instability and economic turbulence, strategic planning takes on the features of anti-crisis management. Risk management becomes central: systematic identification of risks, their quantitative assessment (probability/impact, scenarios) and selection of minimization tools (avoidance, reduction, transfer, acceptance). The practical consequence is the development of

parallel scenarios (baseline/downside/upside) with switching triggers and predetermined reserves of time/capital/capacity.

Stakeholder management plays a significant role: mapping of stakeholders (staff, customers, suppliers, investors, communities, regulators), impact/interest matrix, rules of communication and transparency of decisions. Systematic consideration of stakeholders' interests reduces reputational and operational risks and increases the ability to recover.

A separate direction is sustainability strategy, which integrates environmental, social and economic dimensions: energy efficiency and resource circularity, occupational safety and inclusion, ethical supply standards, economic viability. Incorporating ESG goals into the strategic map not only improves the image, but also reduces costs, opens up access to financing and strengthens competitiveness. [18]

Successful planning is impossible without strategic control: KPI/OKR monitoring systems, regular strategy sessions and portfolio reviews (go/hold/kill), plan/actual comparisons and corrective actions. Transparent dashboards, uniform data rules and clear accountability of goal owners are crucial.

It is important to remember that strategic planning is a continuous rolling process, not a one-time act: technological shifts, changes in demand, or regulatory innovations can quickly invalidate previous assumptions; therefore, short iterations of course and budget updates are needed. [9; 16]

Finally, in today's competition, innovation capacity becomes critical: investments in R&D, product pilots (MVP), technological partnerships and creation/participation in ecosystems (cluster initiatives, joint competence

centers). This is what allows not only to maintain positions, but also to open up new areas of growth. [18; 25]

Strategic planning in modern conditions is a living, scenario-based and data-driven cycle that combines risk management, stakeholder logic, ESG dimensions, strategic control and a culture of continuous iteration. Such a configuration allows the enterprise – primarily SMEs and agricultural producers – to remain adaptive in a managed manner, protect current viability and create a reserve for long-term growth. Further (in section 1.3) we detail the strategic planning process as a sequence of stages from diagnostics and scenarios – to a portfolio of initiatives, an investment cycle and operational implementation.

1.3. Methodological approaches to forming development strategies for small and medium-sized businesses

The strategic planning process is a multidimensional research and management procedure for which there is no universal “rigid” sequence. In our study, it is structured into two supporting phases – strategic analysis and strategy formation – but is implemented as a cyclical process of knowledge accumulation: data - interpretation - hypotheses - verification - course correction. Such logic corresponds to the modern conditions of high variability of the environment, where the quality of decisions is determined not only by the depth of the “slice” at a given moment in time, but also by the organization’s ability to quickly update its own assumptions.

Strategic analysis goes beyond formal lists of factors and relies on a combination of methods: macro analysis (PEST/PESTEL), industry competition models, demand and value proposition mapping, as well as assessment of internal capabilities according to the logic of a resource-oriented approach (asset structure,

rarity and inimitability of competencies, organizational support). For SMEs and agricultural producers, assessments of seasonality, logistical burdens, availability of financing, energy risks and regulatory constraints are added to this core. The key task of the analysis is not only to describe “what is happening”, but to link internal capabilities with specific external opportunities/threats and to formulate testable hypotheses for strategic choice.

An important feature of this phase is methodological pluralism and data triangulation. Along with official statistics and financial reporting, secondary market surveys, supply chain data, customer analytics (CRM, transactions), expert interviews and short field experiments (pilots/MVP) are used. This combination increases the internal validity of the conclusions (checking the consistency of the sources) and external validity (relevance to the target segments). Additionally, sensitivity analysis and robustness of assumptions are applied: assessing how the conclusions change under alternative trajectories of prices, exchange rates, cost of capital, availability of logistics, etc.

Moving on to strategy formulation, management selects and constructs development alternatives, transforming diagnostics into a coherent set of goals and solutions. This combines classical tools (Ansoff matrix for choosing growth trajectories; SWOT/TOWS for the “junction” of internal and external) with heuristic and experimental approaches (cognitive modeling of cause-and-effect relationships, mental maps, design thinking, Lean pilots for rapid validation of hypotheses). For SMEs, this is critical: limited resources require not an “ideal” model for years, but a portfolio of solutions that can be quickly tested and scaled.

The scientific “quality” of this phase is ensured by several principles. First, operationalization of goals: each strategic thesis acquires measurable indicators, time horizons and resource requirements. Second, multi-criteria assessment of alternatives (impact on revenue/margin/share; capital intensity; time to effect; risk and reversibility of the decision; synergy with the core business). Third, scenario matching: the sustainability of the choice is checked in

the base, pessimistic and optimistic scenarios. Fourth, bias management: premortems, “red teams”, formalized prioritization criteria – to minimize the confirmation effect, the status quo and the “sunk cost” fallacy.

In addition to the basic framework, strategic planning is reinforced by specialized economic analysis techniques, which can be combined appropriately depending on the goal, decision horizon, and data availability. Benchmarking allows you to compare indicators and practices with market leaders and identify “capability gaps” in processes, products, and services. Expert assessments (including adapted Delphi procedures) are useful where the market is changing rapidly and statistics are lagging behind, but require the selection of independent experts and transparent rules for aggregating judgments. Scenario forecasting transforms uncertainty into a set of manageable alternatives with predefined course correction triggers. Key success factor (KSF) analysis focuses management attention on a few critical determinants of outcome (access to channels, reliability of supply, service, brand trust, etc.) and helps align investment priorities.

At the stage of identifying strategic opportunities and risks, it is advisable to use tools that “stitch together” the external and internal vision. SWOT analysis performs this integrative function if it is filled with valid data and is not reduced to a formal list. ETOP (Environmental Threat and Opportunity Profile) systematizes threats and opportunities of the external environment by blocks (regulatory, technological, logistical, security, etc.) and forms a “profile” of the market for the enterprise. SPACE analysis (financial condition, competitive position, environmental stability, industry potential) helps to determine the appropriate strategic orientation (aggressive/conservative/competitive/protective) taking into account risk appetite. PIMS approach (Profit Impact of Market Strategy) is useful for empirically assessing the relationship between market characteristics and profitability, but its conclusions should be interpreted with caution due to industry differences and time-specific data.

A separate class is represented by matrix models of portfolio and market analysis. The BCG matrix (market growth \times share) quickly guides in the priorities of financing products/directions, but can distort the picture in larger and seasonal businesses. GE/McKinsey adds multi-criteria (industry attractiveness \times competitiveness), requiring qualitative weights and consensus on the criteria. The ADL matrix takes into account the industry life cycle and competitive position, which is useful for decisions about entry/exit and the pace of investment. For SMEs, these models should be used in a “light” version - with a small number of clearly defined metrics and regular updating of assumptions.

The key methodological rule for all the listed tools is contextualization and triangulation. The tools should correspond to the structure of costs and revenues of a specific business, its seasonality, logistical constraints, access to financing and the specifics of demand (for the agricultural sector - also weather risks, export windows, "cold chains"). The parallel use of several independent sources and methods reduces the risk of false conclusions and sunk cost errors.

The stages of strategic planning - despite the variability of interpretations - require a comprehensive and at the same time flexible approach: the basic framework (PEST/PESTEL, SWOT/TOWS) are supplemented with specialized methods (ETOP, SPACE, PIMS, benchmarking, expert assessments, scenario forecasting), and the results of the analysis are translated into manageable decisions through prioritization and portfolio logic. The success of such a design is determined by the quality of data, the competence of the management team and the clear coordination of tools with the long-term development goals of the enterprise.

The generalization of scientific approaches confirms: portfolio and market matrices (BCG, GE/McKinsey, ADL, etc.) should be used as auxiliary navigational frameworks that structure the initial field of choice, but do not replace the full cycle of strategic analysis and decision-making. Their heuristic power lies in the rapid visualization of priorities; at the same time, analytical

limitations are significant: static assumptions, sensitivity to data quality and interpretation, ignoring seasonality/nicheness, underestimation of synergies between areas, risk of simplifying cause-and-effect relationships. Therefore, the correct use of matrices involves local calibration of criteria, triangulation of conclusions by other methods (PEST/PESTEL, SWOT/TOWS, ETOP, benchmarking) and inclusion of scenario and portfolio considerations in decisions (go/hold/kill, real options, review triggers). Only in this configuration do matrices work as useful “maps of the terrain” rather than as definitive recipes – especially for SMEs and agricultural producers, where the context changes rapidly and resource constraints increase the cost of error. [9; 41]

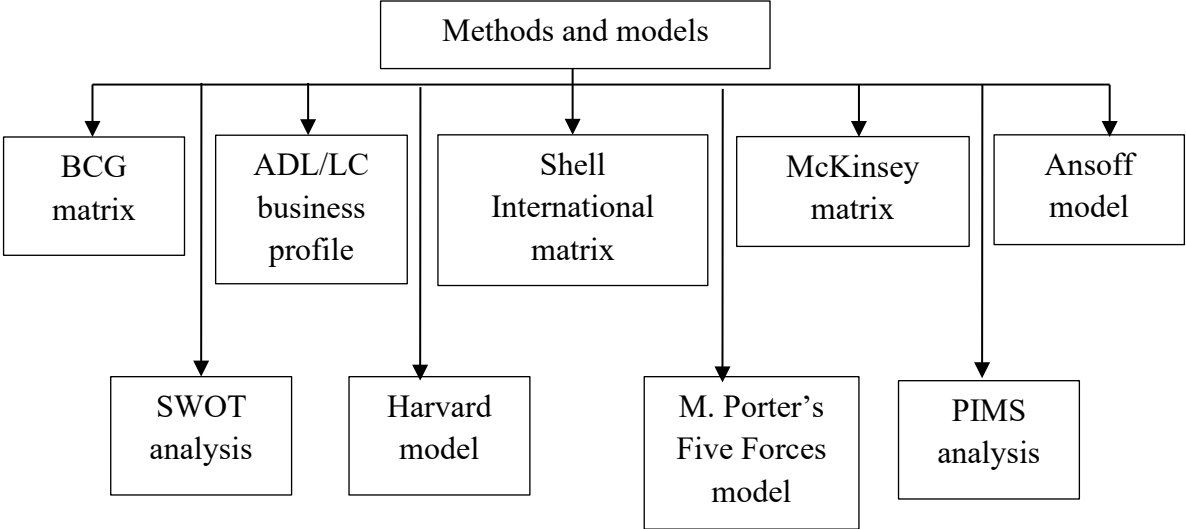


Fig. 1.3. Methods and models of strategic planning

Source: constructed by the author based on [9; 41]

The BCG matrix is a portfolio tool that classifies products/industries along two axes: market growth rate and relative market share (relative to the largest competitor). The division into “stars”, “cash cows”, “question marks” and “dogs” is based on the assumption of the experience curve (higher share - lower costs - better margin), therefore it is useful for quick visualization of the portfolio balance and cash flows and for initial decisions on resource allocation (hold/feed, “harvest”, grow or exit). At the same time, the approach has limitations: static

assumptions, sensitivity to the quality of market data, ignoring seasonality and nicheness, underestimation of synergies between areas. For SMEs and agricultural producers, this means the feasibility of adapted application: supplementing the “share” with indicators of marginal cash generation, taking into account seasonal “windows”, logistical constraints and conducting scenario checks.

The Ansoff matrix performs another function – it is the navigation of growth trajectories (market penetration, market development, product development, diversification), that is, the answer to the question “where to move next”. In practice, the tools are not mutually exclusive, but complementary: first, it is worth forming growth options according to Ansoff, and then evaluating and redistributing resources between existing/planned areas according to BCG (in a simplified, “context-calibrated” version).

For Don-Terminal LLC, this means the following sequence: (1) identify possible development trajectories (market development – geographic expansion/new segments; product development – service/service package modifications; penetration – increasing share in existing segments), and then (2) use the adapted BCG for resource allocation between areas, taking into account their monetary profile, seasonality of demand, and logistical risks. Such a connected approach minimizes the methodological limitations of each matrix and increases the correctness of management conclusions.

Additional depth of external diagnostics is provided by M. Porter's five forces model: intensity of industry competition, threat of entry of new players (and barriers to entry), power of suppliers, power of buyers and threat of substitute goods. For SMEs, this framework is important because it allows to quantify the "pressure of the environment" and to understand where exactly the margin and bargaining power are formed, and therefore - what mechanisms are needed to increase it (service differentiation, integration along the value chain, cooperation, etc.).

To move from fragmentary observations to a holistic solution, it is advisable to combine the results of Porter analysis with SWOT: the strengths and weaknesses of the enterprise are correlated with opportunities and threats, and then translated into specific strategic steps (goals, initiatives, indicators).

Illustrative SWOT for Don-Terminal LLC (taken from the provided description of the company's activities):

- S (Strengths): partnerships with international brands (TotalEnergies, ORLEN Oil); proven quality and range of lubricants; potential of B2B channels.
- W (Weaknesses): insufficient recognition in local markets; limited marketing budgets of SMEs; dependence on individual logistics routes.
- O (Opportunities): structural growth in demand in the agricultural sector for quality lubricants/service; expansion of sales channels through digital tools (CRM campaigns, marketplaces, e-commerce for B2B); service and subscription models for fleets of equipment.
- T (Threats): increased competition among importers/distributors; logistical disruptions and supply risks in wartime; exchange rate volatility.

The results of the SWOT and five forces analysis set a clear sequence of strategic steps. First of all, it is advisable to clarify the company's positioning: partnerships with global brands (TotalEnergies, ORLEN Oil) should be communicated as a proven marker of quality and uninterrupted supply, reinforcing them with service commitments (SLA on deadlines, technical support, lubricant analysis). This approach increases the value of the offer for B2B customers and reduces sensitivity to price competition.

Next, it is logical to reformat the marketing and sales model for priority segments. For the agricultural sector, it is worth launching targeted B2B communications: industry demonstrations and field events, content about the total

cost of ownership (TCO) of equipment, and personalized offers through CRM. This directly covers the identified weakness – insufficient recognition – and translates it into a managed lead generation process.

In parallel, it is necessary to strengthen logistical resilience and risk management. A smart configuration would be to diversify routes and warehouses, form buffer stocks for peak periods, and contractual supply “windows.” Such measures reduce the bargaining power of suppliers, mitigate the consequences of disruptions, and stabilize the service level for customers.

The final step is portfolio prioritization of initiatives. Growth trajectories should be outlined using the Ansoff matrix (new regions/segments, development of product and service packages), and the allocation of resources between existing and planned areas should be done using an adapted BCG, taking into account margins, seasonality, and cash flow profile. Regular review of such a portfolio captures the balance between short-term liquidity and long-term growth.

The coordinated implementation of these steps provides Don-Terminal LLC not only with tactical improvements (recognition, service, stability of supplies), but also with a holistic strategic architecture: a clearly articulated value proposition, managed growth channels, and disciplined resource allocation in a changing environment.

The Shell/DPM (Directional Policy Matrix) model is useful as a portfolio model that positions business lines in the space of “industry attractiveness” and “competitive position (business strength)”. It is related to GE/McKinsey, but emphasizes resource allocation policies in a changing environment more strongly. The attractiveness of an industry is assessed by growth rates, average profitability, barriers to entry, technological trajectories, regulatory and logistical conditions, and expected demand stability. Competitive position reflects the relative strength of the line: market share, marginal cash flow generation, access to channels/raw materials, brand and service, supply chain efficiency, innovation and operational capabilities.

The combination of these dimensions determines the strategic orientations: invest and increase presence (high attractiveness and strong position), invest selectively/focus on niches (average values), or “harvest”/exit (low attractiveness and weak position). For SMEs and agricultural producers, the model works correctly provided that the criteria are calibrated to the context: seasonal sales “windows”, logistical shoulders, availability of energy and raw materials, currency risks, contractual SLAs, service benefits. Among the limitations are the static nature of the “snapshot”, sensitivity to weights and data quality, underestimation of synergies; therefore, it is advisable to combine DPM with scenario analysis and a cash profile (margin, cash conversion).

In practice, portfolio solutions rely on strategic information systems (SIS): they integrate operational, financial and market data, contain built-in analytical models and provide interactive work with scenarios for preliminary assessment of the consequences of strategic steps [80]. This involves unified dashboards of portfolio metrics (attractiveness/strength of business, margin, cash conversion, risk triggers), scenario modules with decision gates (baseline/downside/upside; go/hold/kill) and integration with ERP/CRM/BI for operational “recalculation” of positions in DPM/GE/McKinsey/BCG.

For Don-Terminal LLC, the combination of DPM (prioritization of investments across channels, segments, service packages) and SIS (single source of data, scenarios, KPI panels) forms a manageable basis for regular portfolio review in the face of changing logistics and seasonal demand in the agricultural sector. This increases resource allocation discipline and accelerates strategy adaptation to market fluctuations.

Automation of strategic planning based on modern IT solutions significantly increases the quality and speed of the management cycle: it improves the accuracy of forecasts, reduces the time for processing large data sets, reduces uncertainty in assessing risks and opportunities, and supports the discipline of fact-based decision-making [73]. The impact is not limited to “saving time”:

digital tools set a single logic for working with strategy – from fixing assumptions and goals to monitoring KPIs and flexible course corrections.

Strategic information systems (SIS) today cover the entire strategy chain: mission/vision formation and goal hierarchy, scenario and roadmap development, portfolio prioritization of initiatives, budgeting and resource allocation, operationalization through KPI/OKR, and continuous performance monitoring with review triggers. Integrated analytical modules (scenario, optimization, predictive) allow you to compare alternatives and assess the consequences of decisions in advance in various macro- and micro-scenarios [76]. Market dynamics confirm the growth of demand for such solutions: according to Data Bridge Market Research, the strategic planning software segment grew from ≈1.66 billion USD in 2021 to a projected 4.51 billion USD in 2029, reflecting the business transition from “manual” approaches to automated strategic management [74].

For practical selection of solutions, it is advisable to consider four groups of characteristics. First, the deployment method (cloud services vs. local installations) determines scalability, CAPEX/OPEX structure, security requirements and regulatory compliance. Second, the type of platform (mobile applications, desktop or multi-channel interfaces) affects the availability of tools for different roles and the speed of feedback. Third, the target size of the organization (solutions for large corporations, medium and small enterprises) determines the cost of ownership, complexity of implementation and flexibility of settings. Fourth, the industry purpose (production, trade, financial sector, education, public administration, etc.) assumes the presence of typical models and connectors to ERP/CRM/BI [74].

Along with the choice of software, it is critical to adhere to the conditions of correct operation. You need: reliable data quality and integrations (single “source of truth”, synchronization with ERP/CRM/BI, version control of assumptions); mature analytical risk management (built-in

baseline/downside/upside scenarios, sensitivity analysis, solutions with go/hold/kill gates); clear management governance (roles, regulations, transparency of decisions, change log); a systemic program of changes and development of competencies (user training, “person-in-the-loop” for interpreting models); as well as cybersecurity and compliance (access control, encryption, audit, requirements of customers/government agencies). Therefore, the implementation of strategic IT systems is not just a modernization of planning processes, but a source of sustainable competitive advantage: the enterprise becomes proactive, innovative and analytically prepared for shocks; the quality of portfolio solutions and the rate of adaptation directly increase. An overview of the most common software products for strategic planning is given in Table. 1.3.

Table 1.3

The most popular strategic planning programs

Software complex	Key features
Hive	– setting goals, dividing into stages, distributing tasks between teams; – visualization of goal achievement; – ability to track progress by various parameters; – automatic notifications about changes in projects.
ClickUp	– strategic planning templates; – setting and monitoring goals with the possibility of adjustment; – real-time communication; – support for mobile platforms.
Airtable	– a cloud solution for organizing and storing data on strategic initiatives; – creating personalized interfaces for controlling tasks and goals; – synchronous work of teams from different locations.
Adobe Workfront	– setting strategic goals and monitoring their achievement; – real-time reporting, integration with Adobe platforms; – analytical tools to assess the effectiveness of plan implementation.
Any.do	– intuitive planner for managing goals and tasks; – support for communication within the team; – accessibility from multiple devices, convenience for remote work formats.
Trello	– Kanban boards, interactive calendars and tables; – the ability to add participants, use color labels; – process automation without coding, large library of templates.
United	– open source, scalable; – intuitive interface and integration with other tools; – analytics, portfolio management, and mission visualization features.

Source: constructed by the author based on [77]

Given the above, digital strategic planning tools are becoming an organic part of management: they shorten the strategic cycle from diagnostics to course correction, increase forecast accuracy, and reduce the likelihood of wrong decisions thanks to transparent data, scenario testing, and KPI/OKR discipline. The automation of strategic procedures simultaneously improves coordination between departments, makes communication of goals and responsibilities unambiguous, and the organization more flexible and adaptive to market shocks and volatility.

So, in the commercial sector, strategic planning is a complex, multi-stage and critically important process, the success of which is determined not only by the quality of analytics, but also by the effectiveness of instrumental support and management governance. For enterprises like Don-Terminal LLC, this means a systematic transition from one-time "plans" to continuous strategizing: data - scenarios - portfolio prioritization - execution - revision. Such an approach not only maintains market positions, but also forms long-term competitive advantages in the conditions of constant dynamics of the business environment.

1.4. Theoretical foundations of the investment process of agro-industrial enterprises

The agro-industrial complex (AIC) is a system of interconnected spheres that, through cooperation, specialization and integration, form a single value chain with a pronounced multiplier effect. In the upper part of the chain, industrial support (means of production, chemical plant protection products, mineral fertilizers, fuel and energy resources, machine building for the agro-industrial complex) functions, which forms the resource base of agricultural production. The core of the system is agriculture (crop and livestock farming; if necessary, fisheries and forestry), which ensures food security and supplies raw materials for

further processing. In the “downstream” section of the chain, there are processing enterprises and storage, logistics and sales operators that transform raw materials into finished products and deliver them to end markets. The functioning of the entire complex is supported by production and social infrastructure (transport and logistics network, energy, warehouse and refrigeration infrastructure, service and repair services, financial and credit and educational institutions, etc.), which ensures the reproduction of labor potential and the continuity of processes.

The systemic interaction of these subsystems is implemented through horizontal and vertical connections. Vertical integration (the combination of "up" and "down" along the supply chain - from resources to sales) reduces transaction costs, stabilizes the quality and rhythm of supplies, and also expands investment opportunities. Horizontal cooperation and clustering (specialized associations of producers, processors, logistics and service companies within territories) increase efficiency due to scale effects, common infrastructure and diffusion of innovations. As a result, investments in individual links of the agro-industrial complex generate a multiplier effect for related areas, which enhances the return on invested capital at the level of the entire complex.

In view of this, it is advisable to consider the investment process in the agro-industrial complex as an organizational and economic system that takes into account the specifics of production and management decisions in different sectors. Agriculture, consuming industrial resources, simultaneously produces raw materials for processing and forms a closely integrated circuit "industry - agricultural production - processing - sales". The level of development of such a circuit directly correlates with the scale and quality of capital investments, their consistency between links and the ability to ensure continuity and technological renewal of production [22].

The transformation of Ukraine's agribusiness took place in the context of the transition from a command-and-administrative model to a market economy. In the initial stages, integrated vertical relationships between agricultural

producers, machine building, processing, and service structures dominated. Over time, they were largely replaced by contractual, mostly horizontal, partnership relationships (equipment rental, cooperation in sales and purchases, service outsourcing models). This evolution reduced dependence on "hard" integration, but at the same time exposed the problems of market power: the processing and service segments, which are often more concentrated, gained the opportunity to dictate price and non-price conditions, which directly affects the marginality of agricultural producers and, accordingly, their investment capacity.

The specifics of agricultural production form a non-trivial risk profile for investments: natural and climatic fluctuations, seasonality, spatially dispersed assets, use of "living" biological factors, long production cycles. All this increases the need for insurance instruments, flexible revolving financing, technological modernization, and professional risk management.

State support played a key role in the development of the sector; now its direct volume has decreased, but certain instruments of influence remain (tax regimes, targeted subsidies to small producers, interventions in certain markets, price/non-tariff regulations). Their effectiveness for the investment climate depends on the predictability of rules, transparency of access, and consistency with modernization goals.

The organizational structure of the agro-industrial complex is characterized by dualism. On the one hand, there are large integrated entities (agroholdings, consortiums, cooperatives), which provide economies of scale, easier access to capital and modern technologies. On the other hand, there is a significant array of small household farms (homestead sector), which are significant producers of certain types of products and remain important counterparties for investors and processors [18]. To attract investment, this necessitates the need for supply aggregation tools (cooperation, contract manufacturing, service centers for shared use of equipment) and inclusive financing models.

An essential condition for sustainable investment is the development of rural social and productive infrastructure. Investments in schools, kindergartens, healthcare facilities, cultural spaces, as well as in municipal and energy infrastructure (water supply, gas and electricity networks, roads, communications) create positive externalities: they increase the quality of human capital, reduce migration outflow, reduce business operating costs and risks of downtime. For small rural communities, where income concentration is lower, the combination of productive and social investments becomes a necessary prerequisite for the payback of private projects in the medium term.

Supporting the investment process in agriculture has a multiplier effect for the entire agro-industrial complex. Targeted investments allow simultaneously: to reduce overdue liabilities of enterprises, strengthen working capital, create additional jobs for the rural population, increase land use productivity and modernize the fixed assets fund. In agriculture, the investor pursues not only financial profitability: the specifics of the industry determine additional goals - maintaining soil fertility, biosecurity and the healthy state of animals and crops. These requirements do not deny, but expand the classic investment goal - an increase in business value and/or a socially significant effect.

Given the role of the agricultural sector in food security, some projects may prioritize social value over maximum short-term profitability. For a significant part of households and residents of small towns, agricultural production is the basic source of income; therefore, investments in the sector act as an instrument of social protection and improvement of quality of life through employment, infrastructure and local value added.

At the current stage of development of the agro-industrial complex, it is critical to increase not only the volume but also the quality of production. This is achieved through: improving the corporate and operational management system; improving the agrobiological characteristics of soils, crops and livestock; introducing precision agriculture, biosecurity and modern logistics and processing

technologies; increasing the level of service and after-sales support. A separate strategic direction is the consolidation of producers (cooperatives, consortiums, agroholdings), which provides economies of scale, simplifies access to capital and technologies and reduces transaction costs [25].

The advantages of large integrated structures usually consist of: (i) economies of scale in production, logistics and sales; (ii) reduction of the intensity of “destructive” competition while maintaining incentives for efficiency; (iii) accumulation of assets to launch investments with a longer horizon; (iv) greater stability of operations and better diversification of risks; (v) building a hierarchy of processes without losing the autonomy of efficient production units. At the same time, such integration should be combined with inclusive mechanisms for the participation of SMEs (contract manufacturing, service ASN-agro, sharing of equipment) to avoid excessive concentration of market power.

Provided that industry factors (natural and climatic risks, seasonality, infrastructure restrictions, regulatory requirements) are properly taken into account, investments can provide a significant increase in efficiency, and with rational land use, also improve the ecological state of the environment.

From an applied point of view, the investment process in the agribusiness sector includes three interrelated blocks: generation of an investment idea (identification of needs and opportunities of the value chain), mobilization of financing (equity, debt, grant and mixed instruments) and assessment of feasibility (financial, economic, socio-ecological). The basic parameters of decision-making are time (horizon and liquidity), risk (production, market, climate, institutional) and expected profitability. Their priority varies depending on the instrument: for government bonds, the time and credit profile are decisive; for term contracts, risk management and volatility; for startups, a balanced assessment of the entire triad “time-risk-return” with an adjustment for the option value of innovation [10].

In conditions of martial law and high uncertainty, investment decisions in the agribusiness sector should be assessed not only through the prism of market profitability, but primarily in terms of the ability to ensure the sustainability of production chains and the long-term viability of communities. This is a priority for projects that strengthen the physical and operational continuity of agribusiness: diversification of logistics routes, development of local storage and processing capacities, autonomous and renewable energy sources, modernization of critical infrastructure. Such investments reduce vulnerability to shocks and increase the speed of resumption of operations.

In parallel, the focus is shifting from “volume growth at any cost” to qualitative growth in line with the principles of sustainable development. Investments in precision agriculture, soil fertility restoration, water conservation, biosecurity, post-harvest loss reduction, and energy efficiency simultaneously increase margins and reduce environmental risks. Combined with the digitalization of operations, this forms the material basis for increasing productivity with lower resource load.

Equally important, capital should contribute to inclusive economic growth. Integrating SMEs into value chains through cooperation, contract manufacturing and shared-use centers, focusing on creating quality jobs in communities, and addressing the needs of internally displaced persons and vulnerable groups are not “social add-ons” but factors that strengthen local demand, retain human capital and reduce long-term operational risks.

The financial architecture also needs to be adjusted: alongside market-based instruments, guarantee mechanisms for SMEs, mixed models with grant components for green and digital projects, agricultural risk insurance, export crediting are appropriate. Competitive selection should replace administrative allocation of resources, and large integrated players should commit to cooperation with local suppliers to avoid excessive concentration of market power.

Aligning these approaches with government priorities – food security, energy self-sufficiency, climate adaptation and infrastructure restoration – provides a unified logic for private and public investments. As a result, the

investment process in the agri-industrial complex acquires the features of a sustainable and inclusive growth model: it supports the competitiveness of enterprises, strengthens the social cohesion of rural areas and reduces environmental externalities, without losing financial discipline and requirements for project efficiency.

The investment market should be considered as a holistic system of interaction of three components: entities (households, enterprises, institutional and private investors, investment companies, banks, development funds), objects (real projects and financial assets) and infrastructure that ensures the movement of capital between them (financial intermediaries, exchange and over-the-counter platforms, rating and insurance institutions, payment systems, legal and regulatory environment). The interaction of these elements forms the supply of investment resources and demand for them and determines the conditions for the transformation of savings into long-term investments.

In mature economies, the short- and long-run equilibrium between the demand for and supply of capital is maintained by a combination of market price signals and regulatory mechanisms of competition. Capital pricing (interest rates, expected returns, risk premiums) coordinates the decisions of investors and borrowers, while antitrust supervision, disclosure standards, and investor protection reduce transaction costs and information asymmetries. Under such conditions, the proportions between invested resources and investment returns remain relatively stable, which stimulates the simultaneous growth of both supply and demand for investment [8].

The market coordination mechanism works by transferring capital to areas with a better “return/risk” ratio. Increased returns attract new investors, increasing competition for assets and reducing excess profits; at the same time, worsening expectations cause exit from projects and the search for alternatives. As a result, there is a constant reallocation of resources, which ensures the reproduction of capital and finances the expansion of production, the transition to higher technological systems, the creation of new capacities and products. In a broad sense, the investment market is an institutionally designed “meeting place” for

owners of free financial resources and entities that need capital to implement projects.

However, real market dynamics are rarely ideal. Behavioral biases (following the “market trend”, myopia), information asymmetry and limited investment infrastructure can lead to temporary imbalances, underfunding of socially significant areas or, conversely, “overheating” of individual segments. Therefore, the role of the state and regulators is not to replace the market, but to correct coordination failures: ensuring transparency, competition, reporting standards, effective bankruptcy, protection of minority investors’ rights and implementation of risk reduction instruments for SMEs (guarantee funds, agricultural risk insurance, co-financing of projects with high positive externalities – food security, “green” modernization, etc.).

For the agro-industrial complex, this has an applied dimension. Since the own profits and savings of most agricultural producers are usually not enough to finance modernization, channels for attracting external capital become crucial: bank debt, leasing, crowdinvesting, private capital, grant and blended finance instruments of international financial organizations. The association of investors and enterprises in corporate forms (joint-stock companies, cooperatives, special project companies) allows accumulating larger amounts of resources, diversifying risks between participants and launching longer investment cycles. In war and post-war conditions, risk-sharing mechanisms (guarantees, insurance coverage, currency hedges) and sustainability criteria (environmental, social and management requirements) acquire additional importance, which increase the quality of project selection and ensure the stability of investment flows.

Therefore, the investment market is not a simple “meeting” of capital supply and demand. It is an institutionally and technologically complex environment in which market incentives, regulatory safeguards, and joint financing instruments must work in concert – especially in the agribusiness sector, where seasonality, climate risks, and the need for long payback horizons require a more flexible, transparent, and inclusive organization of access to capital.

The investment market should be described as a system of interconnected segments within which capital flows between real assets and financial instruments. The basic division is between the market for real (tangible and intangible) assets and the financial market.

Real assets include:

- construction and infrastructure;
- acquisition/modernization of fixed assets (machinery, equipment, transport);
- technological solutions and IP assets (patents, licenses, know-how);
- research, engineering, design, installation, commissioning and logistics services.

In the context of agro-industrial complex, these also include elevator and processing facilities, irrigation systems, energy-efficient solutions, digital farm management platforms and post-harvest logistics. Human capital is considered an investment object (education, advanced training, occupational health and safety), which increases productivity and sustainability of processes.

The financial market ensures the transformation of savings into long-term investments through specialized subsegments:

- money market – short-term instruments up to 1 year (certificates of deposit, commercial papers, treasury bills);
- capital market – long-term debt instruments and shares, divided into primary (issue, initial placement) and secondary (further circulation without the participation of the issuer);
- additional channels – leasing, venture and private equity financing, crowdfunding, project financing.

Institutional infrastructure reduces transaction costs and information asymmetry and increases investor protection [3]. Key components:

- exchanges, depositories, clearing centers, credit registries;
- rating, insurance and guarantee institutions;
- intermediary services (investment banking, brokerage, leasing and factoring companies, asset management);

- regulatory norms and disclosure standards.

The quality of intermediary services is an indirect indicator of the maturity of the investment environment: the higher the level of competition and professional standards at the "interface" between capital and projects, the cheaper and more accessible financing for the real sector becomes, in particular in the agro-industrial complex.

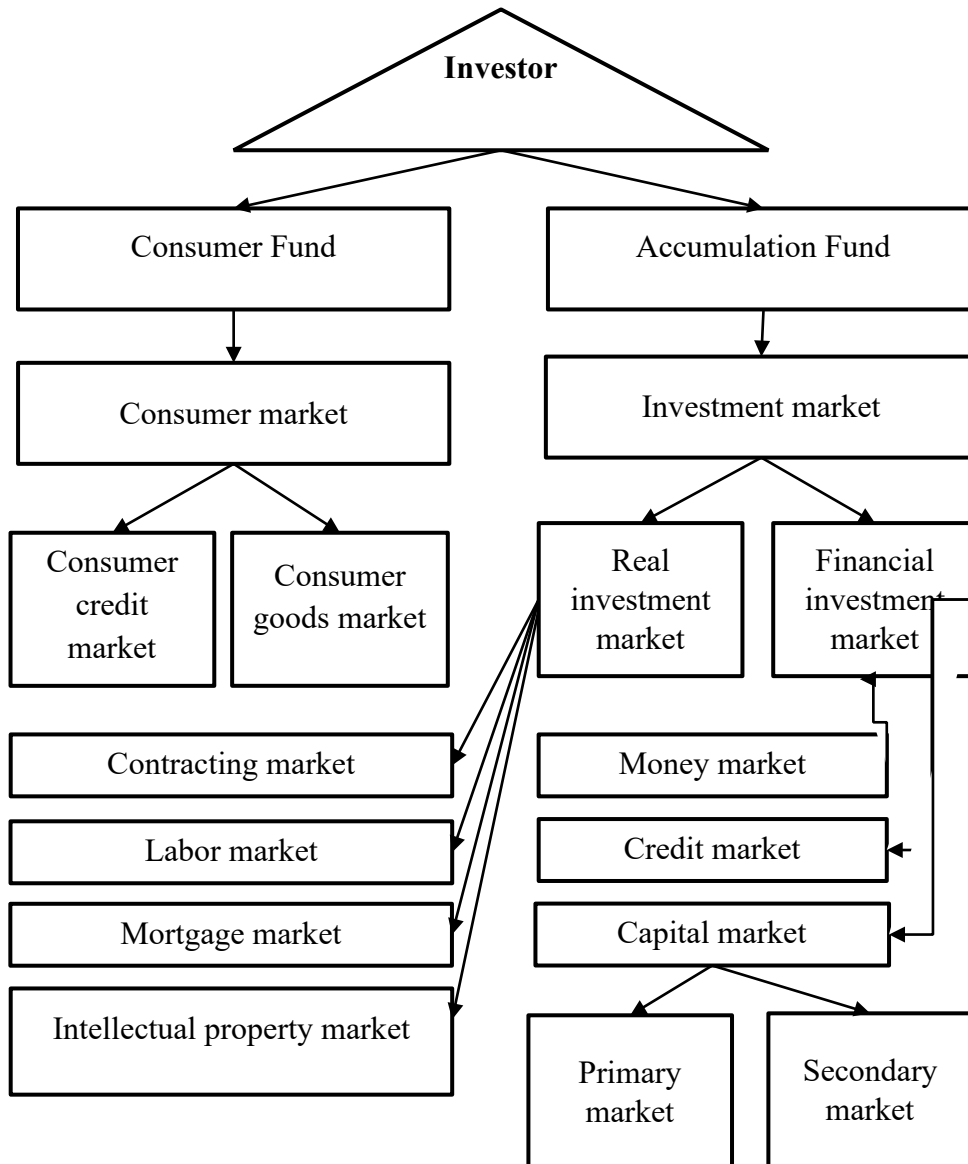


Fig. 1.4 Model of market interaction

Source: constructed by the author based on [3]

The investment market system is best presented as a coordinated interaction of institutions, mechanisms and rules that transform savings into long-term investments in the real sector. The circle of participants includes investors (private, institutional, international), borrowing companies and intermediaries; investment objects cover both real and financial assets; the infrastructure ensures the circulation of capital (exchange and over-the-counter platforms, depositories, clearing, audit and rating services), and the market mechanism sets the pricing of capital and project selection standards. State policy complements this system with the protection of investor rights, competition and risk reduction tools.

The investment climate is shaped by a combination of political, economic, legal and social factors. In today's Ukrainian conditions, the key factors are regulatory predictability and judicial protection, macro-financial stability (inflation, exchange rate, availability of credit), the efficiency of logistics and energy, the quality of human capital and industry prospects. The combined effect of these determinants affects the pace of fixed capital accumulation, the structure of financing sources and the value of money. Negative shocks – primarily military risks and disruptions to supply chains – increase the risk premium and restrain lending; in turn, targeted instruments (guarantees for SMEs, agricultural risk insurance, support for "green" and digital projects, development of leasing) reduce systemic uncertainty and improve the expected return.

Therefore, the quality of the investment environment is determined not by individual indicators, but by their coherence: when legal predictability, macrostability, deeper capital markets, and modernized infrastructure work together, the risk premium is reduced, the circle of investors expands, and the transformation of savings into real investments is accelerated - particularly in the agro-industrial complex.

Anchoring inflation expectations and consistently reducing inflation is a basic prerequisite for boosting long-term investment. When the value of money becomes predictable, investors are more willing to finance projects with a long

horizon – construction, commissioning, deployment of new production capacities – which, through multiplier effects, supports related sectors and aggregate productivity.

A practical architecture for investment promotion policies should combine institutional changes at the enterprise level with the development of financial infrastructure and risk-sharing mechanisms:

Modernization of management at enterprises. Transition to transparent management accounting and KPIs, implementation of internal control and compliance, improvement of the quality of financial reporting - all this reduces information asymmetry and the cost of capital.

Insurance circuit for investments. Expanding the offer of sectoral (including agricultural) and project insurance products, political/military risk instruments and guarantee schemes for SMEs increases the acceptability of risk for lenders and investors.

Deepening the capital market infrastructure. Development of exchange and over-the-counter infrastructure, securitization, leasing; formation of a liquid secondary market for mortgage and corporate instruments, which opens up a longer resource for the real sector.

The mortgage segment as a "long" resource. The standardization of mortgage products (for households and corporate real estate), the emergence of investment-attractive mortgage-backed securities, and the functioning of the secondary market reduce the cost of financing long-term projects.

In the context of limited domestic savings, attracting foreign direct investment and long-term external financing becomes key. This is not only about macro-financial stabilization (debt obligations, budget deficit, growth rates), but also about organizational, economic and legal incentives that create a predictable, competitive and protected investment climate [2]. Effective tools are those that reduce transaction costs of entering the market (single “windows” for investment projects, fast procedures for connecting to networks, industrial parks) and ensure

the rule of law (protection of the rights of investors and creditors, effective arbitration/judicial settlement).

A separate role belongs to transnational companies: provided that value chains, technology transfer and human capital development are localized, their presence can act as a catalyst for productive investment. The optimal policy is not to “attract TNCs at any cost”, but to selectively integrate them into national and regional clusters, tying tax/regulatory incentives to specific commitments to R&D, local supply, exports and training.

Leasing should be considered as a key instrument of "long" financing in the agricultural sector: it provides SMEs with access to capital-intensive assets without significant upfront costs, reduces downtime through flexible schedules for equipment upgrades, and increases return on assets through service support from suppliers. The combination of operating and financial leasing allows for the rapid elimination of technical "bottlenecks", stabilizes cash flows, and has a positive effect on the cost of production.

The development of professional capital management - investment funds and companies, in particular venture and private equity financing instruments, strengthens the innovative component of the investment process: accelerates the diffusion of technologies (precision agriculture, biotechnology, energy-efficient solutions, digital platforms), creates scalable business models with higher added value, and expands the pool of both domestic and external investors.

Together, leasing mechanisms, institutional supply of long-term capital, and transparent credit policies form a holistic investment ecosystem. This configuration accelerates the renewal of fixed assets, reduces the risk premium, rationalizes the use of attracted resources, and increases the sustainability of growth, primarily in the priority agricultural, energy, and processing sectors for Ukraine.

1.5. Business planning as a component of the investment process

Business planning is a tool for transforming an investment idea into a manageable project with clearly defined goals, resources, time frames, and expected financial results. Within the investment process, a business plan serves a dual purpose: on the one hand, it is an internal “roadmap” for implementation (sequence of work, budget, responsible parties, and milestones), and on the other, it is an external communication document for investors, lenders, and partners that reduces information asymmetry and justifies the feasibility of financing.

The content and depth of the business plan are determined by the trajectory of the enterprise's development and the nature of the market: the volatility of demand and prices, the technological intensity of the industry, the level of technical equipment and the readiness of the operational infrastructure, the presence of regulatory requirements and government support programs. In such conditions, the business plan should combine strategic guidelines (mission, target segments, value creation model) with operational implementation (production program, logistics, personnel, procurement) and financial verification (income and expense plan, cash flow, financing needs, risk sensitivity).

From an applied perspective, a business plan is a feasibility study of future activities or scaling of an existing business: a description of the market and competitive environment; definition of a product portfolio; estimates of production, administrative and operating costs; launch calendaring; forecast financial calculations for a 2–5-year horizon (with a more detailed quarterly or monthly breakdown for the first year). It is this document that provides a link between investment costs and future cash flows, allowing to assess the viability and scalability of the project [17].

In the structure of an investment business plan, the starting point is the introductory (passport) section, which performs the function of a “contract offer” for the investor: it briefly outlines the project’s identity, the scale of operations, and the expected economic effect. Here, the name and brief description of the

project (essence, product/service, target niche, estimated scale of production) are formulated, and the key parameters of the capital request are set: the volume and structure of investments (own/loan/grant resources), the schedule for their development, and the expected return horizons. It is advisable to immediately indicate the target financial benchmarks (revenue level, margin, cash flows) in order to align expectations regarding profitability and risk.

The next block is the organizational and legal implementation model. It justifies the form of business (new enterprise or scaling of an existing one), the ownership structure, investor rights (share in capital, dividend/exit policy, options), as well as mechanisms for controlling and protecting the interests of the parties. For agribusiness projects, it is important to additionally describe land relations (legal titles, terms of use, restrictions), access to production facilities, and agreements with cooperators/processors.

The financial and economic description is not reduced to a list of numbers; its task is to show the logic of value creation. Therefore, in addition to the production program (nomenclature, volumes, cost, sales prices), integrated investment calculations are presented (income and expense dynamics, working capital requirements, cash flow plan) with a focus on the project life cycle: capital phase - reaching operational capacity - stabilization. For SMEs, it is advisable to separately allocate costs for digitalization of processes, quality standards and logistics infrastructure - these items critically affect competitiveness and risk profile.

The operational and technological section explains "where efficiency comes from": it describes the production/service technology, environmental parameters, resource requirements, bottlenecks and ways to eliminate them. Technical solutions are accompanied by a comparative analysis of alternative equipment (domestic and imported), cost and productivity metrics, and, if available, references to protective documents (patents, licenses, copyrights). For agricultural projects, agrobiological assumptions (yield/productivity, quality

parameters of raw materials), a seasonality calendar, and storage requirements are added.

The marketing and market block performs the role of checking the viability of demand. It briefly justifies the capacity of target segments, positioning, sales channels (own, dealer, e-commerce), pricing strategy and promotion plan. The analysis of competitors should be applied: what exactly and how do we do better/cheaper/faster; what barriers to entry protect our position; what partnerships strengthen distribution. With export orientation, the requirements of destination markets are added (standards, certification, logistics, currency risks).

A separate section is devoted to risks and liabilities. It combines: (i) a profile of key risks (market, production, regulatory, environmental, currency), (ii) tools for their mitigation (insurance, hedging, reserves, diversification of suppliers/sales channels, SLAs with counterparties), (iii) financial obligations and collateral (loans, repayment schedules, collateral, guarantees). For the agro-industrial complex, it is advisable to separately highlight the risks of seasonality, climatic and biological factors, as well as business continuity in conditions of military threats (alternative logistics, energy supply, personnel safety).

This way of presenting the material ensures the internal logic of the investment business plan: from the strategic identity of the project and legal/organizational decisions to operational implementation, sales market, financial model and risk management. It makes the document understandable for the investor and at the same time suitable for practical implementation by the management of SMEs and agribusiness enterprises.

The implementation of an investment project involves the consistent preparation of a technical and technological base, legal framework and organizational solutions that ensure a controlled transition from an idea to stable operational activity. At the first stage, technical and technological preparation is carried out: creation and testing of samples, validation of technological maps, production of pilot batches and calibration of quality indicators. In parallel, legal

and permitting support is formed - a contractual basis with suppliers and contractors, design and estimate documentation, titles to land and real estate, permitting procedures (in particular, environmental and industry requirements for the agro-industrial complex). Next, existing assets and capital investments are consolidated: land plots, production and warehouse infrastructure, auxiliary buildings, as well as already incurred costs are described with their classification according to CAPEX/OPEX.

An important component is logistics and logistics: resource and component specifications, supplier selection criteria (reliability, quality, service), supply routes and storage costs are determined; for agricultural production, seasonality, buffer stocks of critical raw materials and the possibility of partial localization of components are additionally taken into account. At the same time, the project's organizational architecture is being built: the need for personnel by functions and qualifications, hiring schedule, payment and training system, coordination channels between departments. The acquisition and commissioning of main and auxiliary equipment is accompanied by NDP plans, FAT/SAT tests, definition of service agreements and maintenance regulations. The final element is calendar-network planning with a critical path, control milestones and measurable results (deliverables), a change management procedure and regular reporting to the investor. This format transforms the list of intentions into an integrated management system that stitches together technology, law, finance, logistics, and HR, thereby reducing implementation risks, ensuring time discipline, and transparency in the use of investment resources.

The final block of the business plan is financial planning, which consolidates the results of marketing, operational and investment decisions into a holistic financial model of the project. At this stage, a forecast of activity results (pro forma P&L) is formed with clearly documented assumptions regarding sales volumes, market share, pricing policy, cost structure and dynamics of operating expenses; the first year is detailed monthly, the following ones - quarterly/weekly.

In parallel, cash flow is calculated (operational, investment and financial CF) with the separation of CAPEX and OPEX, investment withdrawal schedule (drawdown schedule), tax payments, working capital and collection/payment lags. The balance sheet (at the beginning and end of the period) is reconciled with P&L and CF, reflecting the asset structure, sources of financing and changes in equity.

Key performance criteria are used to assess investment attractiveness: NPV (taking into account WACC and inflation/exchange rate assumptions), IRR, discounted payback period, PI; for debt structures – DSCR, Net Debt/EBITDA, LTV and compliance with covenants. Sensitivity and scenario analysis (price, volume, exchange rate, rate, launch delays) are mandatory, as well as stress tests (reduction in revenue/margin, increase in the cost of debt, shocks to the input of resources). The risk management unit specifies operational, market, regulatory and force majeure risks and methods of their mitigation: insurance programs (property, business interruption, liability), hedging of currency/price fluctuations, contingency reserve, diversification of suppliers and sales channels.

The financial strategy for attracting resources is described separately: capital structure (equity/debt/quasi-equity), sources (bank loans, leasing, bonds, grants/government support, crowdinvesting), attraction and repayment schedules, cost of capital, collateral and mechanics of payments to investors (dividend/coupon/buyout). For agro-industrial projects, it is advisable to add calculations of seasonal liquidity, working capital needs for sowing/harvesting cycles, as well as an analysis of the impact of climatic and logistical risks on cash flows. The monitoring system records KPIs (revenue, gross margin, EBITDA, FCF, inventory turnover/DZ/KZ), reporting frequency and trigger thresholds that initiate budget revision.

In such a configuration, financial planning plays the role of an integrator: it translates strategic goals and operational decisions into measurable financial results, provides transparency for investors and creditors, sets execution discipline, and increases project resilience in a volatile environment.

The business plan of an existing enterprise should contain a self-sufficient analytical block “Characteristics of the enterprise and justification of its development”, which forms the evidence of the investment proposal. Here, the legal and organizational status and ownership structure, operational profile (product range, technological level, export component, territorial location and logistical connections), the condition and reproduction of fixed assets with reference to residual value and useful life, as well as human resources and management system are consistently reproduced. The financial part connects historical reporting for the previous three years with scenario projections of the model, demonstrating the logic of transformation: from current production capabilities to expected changes in the structure of assets, productivity and cash flows due to the capital raised.

Such an integrated description does not duplicate sections on the market or risks, but rather brings them together into a single line of argumentation, where each assumption is supported by operational data, contracts, and expert opinions. As a result, the business plan reduces information asymmetry for investors and creditors, increases the transparency of decisions, and most importantly, convincingly explains why this particular enterprise is able to scale and maintain the target profitability with an acceptable risk profile. This is the functional role of business planning in the investment process: to combine strategic intentions with operational feasibility and financial demonstrability.

1.6. The investment project as an instrument of strategic enterprise development

Investment in the managerial sense is a purposeful allocation of limited resources under uncertainty with the expectation of future cash flows and growth in business value. The return on investment is formed by two channels: current

income (dividends, interest, operating cash flow) and capital gain (growth in the market/balance sheet value of assets). Investment resources include not only money, but also real and intangible assets (fixed assets, R&D, IP, licenses), as well as financial instruments (equity and debt securities), which corresponds to both the financial and economic interpretation of investments [2; 3]. At the same time, management decisions in this area always take into account the opportunity cost of capital, risk and time value of money, as well as the possible irretrievability of costs when entering/exiting the project.

For the strategic development of an enterprise, the basic operationalization of investment is an investment project - a structured package of management decisions that translates strategic intentions into specific commitments regarding the volume of resources, terms, expected results and an acceptable risk profile. Unlike current activities, an investment project has clearly defined goals (economy of scale, modernization of technologies, entry into new markets, product diversification), boundaries (investment volume, implementation calendar, required capacities), as well as formalized success criteria (NPV/IRR/PI, impact on productivity and cost, change in competitive positions). In practice, a distinction is made between real and financial investments; greenfield and brownfield; expansion, modernization, import substitution, innovative and ESG-oriented projects - the choice of type is determined by the strategic logic of the enterprise, market context and availability of capital [2; 3].

Thus, “investments” define the economic content and sources of value creation, while “investment project” is a tool for implementing the strategy: it aligns goals with resources, translates long-term priorities into measurable results, and ensures decision-making discipline over a time horizon relevant to the company’s growth.

In modern economic literature, investment is defined as the allocation of resources (financial, tangible, intangible) with the expectation of future benefits in the form of cash flows, asset appreciation, or the achievement of strategic

effects (technological, institutional, social) [2; 3]. It is important to distinguish between investment and consumption expenditures: the purchase of durable goods for personal consumption does not constitute investment in the production sense and does not generate production opportunities. Forms of investment include: (1) financial instruments (equity and debt), (2) real assets (fixed assets, infrastructure, R&D, technology implementation), (3) intangible assets (IPR, licenses, data, software solutions). Regardless of the form, a management decision to invest is based on an assessment of risk, liquidity, cost of capital, and time value of money, and also takes into account sunk costs that arise when entering/exiting a project.

The investor's target system is multi-level. Financial performance (capital growth through income and capital gains) is a necessary condition for viability, but in a strategic context it is combined with development goals: modernization of production, improvement of productivity and energy efficiency, expansion of markets, technological renewal, strengthening of human resources, compliance with ESG guidelines (environmental and social standards), and for projects of public importance – contribution to food/energy security and regional development [23]. The consistency of these goals ensures the strategic nature of investment: resources are directed to where an acceptable risk profile, positive net present value and long-term value for the business model are combined.

Socially oriented investment projects have a dual focus: (1) ensuring an acceptable financial return and (2) achieving a measurable social impact. For such projects, it is advisable to use social value assessment tools - benefit-cost analysis with shadow pricing of non-monetary effects, social return on investment (SROI), logical-structural approach/theory of change to link resources, actions, results and long-term consequences. Targeted social assets can include infrastructure development, access to education and healthcare, improving the quality and duration of life, improving the environmental condition, inclusiveness of the labor market, etc. Comparison of alternatives is carried out according to integral

efficiency criteria, where, other things being equal, preference is given to projects with higher relative social performance per unit of invested resources (subject to acceptable financial viability) [19].

The investment environment should be understood as a set of: (a) entities (investors, issuers/recipients of capital, intermediaries), (b) investment objects, (c) institutional infrastructure (exchanges, depositories, funds, banks, insurance and consulting institutions, the judicial and legal system), and (d) rules of the game - formal norms and practices that determine access, transaction costs, protection of property rights and dispute resolution mechanisms. The quality of this environment directly affects the cost of capital, risk profile and investment horizons.

The investment process represents a sequence of management decisions: opportunity identification, pre-selection, analytical verification (commercial, technical-technological, financial, legal, ESG assessment), deal structuring (financing sources and terms), implementation and monitoring, exit/refinancing. Each phase applies appropriate metrics (NPV, IRR, PI, payback period, sensitivity/scenario analysis, stress-testing), as well as control of sunk costs and irrationality traps (status quo effect, escalation of obligations).

The concepts of “investment object” and “investment instrument” are not identical. An object corresponds to the area of capital application (production plant, logistics hub, IT platform, R&D, human capital), while an instrument is a form of investment (equity and debt securities, direct investments in fixed assets, project financing, leasing, etc.). By economic nature, the following are distinguished:

- real investments (fixed assets, infrastructure, technologies, innovations, human and organizational capital);
- financial investments (stocks, corporate and government debt, money market instruments, derivative financial contracts).

Investment management is based on the basic laws of financial and economic activity: the time value of money, the trade-off "return-risk-liquidity", the structure of the cost of capital, the influence of macro- and regulatory factors on the cash flows of the project. The growth of the cost of capital is the result not only of monetary returns, but also of increased productivity, technological capabilities and market position of the business model, which is institutionally fixed through contractual relations and corporate governance [7; 19].

In investment management, the order of distribution of the created added value is fundamental: the share directed to reinvestment (production expansion, R&D, digitalization, sustainability/ESG projects), and the share paid to investors (dividend payments, interest, capital redemption). The optimal proportion is determined taking into account the cost of capital (WACC), phases of the business life cycle, investment opportunities and contractual restrictions (covenants).

The subject composition of the investment process includes investors (equity/debt, institutional and private), capital recipients (enterprises/projects), as well as infrastructure and professional intermediaries (financial institutions, funds, exchanges, underwriters, consultants, auditors, independent experts, rating agencies). The relationship between the parties is formalized through a system of contracts (corporate agreements, loan agreements, investment and shareholder agreements, EPC/Turn-key, O&M, leasing, etc.) that define rights, obligations, disclosure mechanisms, risk allocation and dispute resolution procedures.

The investment market is the platform for interaction between the parties, where pricing takes place, liquidity is ensured, and demand and supply for capital are brought together. For analytics, it is advisable to distinguish two basic segments:

- real investment market (fixed assets, real estate, equipment, technologies, intangible assets; supporting engineering, design, installation, and logistics services);

- financial market (money and credit segments, securities market – primary and secondary, stock exchange and over-the-counter trading).

It is in these segments that the interests of participants regarding ownership, asset location, transaction terms and terms of circulation are coordinated. Investors look for imbalances (undervaluation/overvaluation), arbitrage opportunities and risk and liquidity premiums, forming portfolios in accordance with the given constraints on profitability, risk and investment horizon. As a result, market mechanisms (competitive quotation, liquidity, information transparency) translate individual assessments into the market price of capital, which determines the availability of financing for investment projects and priorities for their implementation [13].

Investment market infrastructure is a coordinated set of institutions and services that align the supply and demand of capital, reduce transaction costs, and increase the transparency of transactions. Its key building blocks include:

Financial and insurance circuit: banks, non-banking financial institutions, funds (venture capital, private equity, infrastructure), exchanges and clearing organizations, as well as insurers that provide risk transfer and hedging.

Professional services and analytics: auditing and consulting companies, legal advisors, valuation firms, statistical and analytical providers, specialized media and rating agencies that shape information symmetry and data disclosure quality standards.

Educational and scientific segment: institutions that train managers and investors (programs in corporate finance, investment appraisal, risk management), as well as research institutes and university centers that provide methodological support, model verification, and development of industry benchmarks.

Regulatory and legal field: state supervisory authorities, corporate governance standards, prudential regulations, listing/delisting procedures, mechanisms for protecting investor rights and resolving disputes.

Technological infrastructure: market data information systems, trading and clearing platforms, e-document management, data rooms for due diligence, cyber security solutions.

The operational integration of these elements is carried out by professional intermediaries: investment banks, brokers/dealers, underwriters, asset managers, as well as state, self-regulatory bodies that set market admission rules and monitor their compliance. In the real investment market, the value chain additionally includes developers, EPC contractors, equipment suppliers and logistics operators - compliance with the budget, deadlines and quality of assets depends on their reliability.

In this context, investment management is a continuous decision-making cycle that includes: planning (setting goals, policies, and KPIs), organizing and resourcing, selecting and structuring projects (including contract model and risk allocation), executing (procurement, schedule/budget/quality control), and final validation of results (financial and non-financial effects, including ESG). The quality of interaction between the listed infrastructure links determines the cost of capital, market depth, and the speed of conversion of investment decisions into real assets and cash flows.

The investment environment achieves maximum efficiency when it is easy to enter, transparent in rules and procedures, moderate in terms of tax burden and adequately resourced. The formation of such conditions is a joint function of the state and the market. From the public policy side, the key instruments are: a rational tax system (predictability of rates, minimization of selective benefits), maintaining effective competition (antitrust supervision, non-discriminatory access to infrastructure), macroeconomic stability (inflation control, balanced public finances), flexible financial policy (development of the capital market and hedging instruments) and the development of market infrastructure (exchanges, clearing, supervision, digital services).

The balance of supply and demand for capital is ensured by mechanisms of market self-regulation, which is reflected in the classic risk-return relationship. Exceeding the expected return without the corresponding risk is a temporary phenomenon and is usually explained by information asymmetry or short-term imbalances. As information spreads and new participants enter, the market returns to equilibrium values, and the risk premium is restored.

The classification of investments is appropriate considering two basic criteria – the type of entity (who invests) and the type of instrument (what is invested in). The combination of these factors determines the channels of capital mobilization, expected payback periods, efficiency assessment methods and approaches to risk management. The manufacturing sector is of particular interest: investments in capacity expansion, technical and technological modernization of fixed assets, digitalization of operations and increased energy efficiency create a long wave of effects – from increased productivity and product quality to reduced unit costs and increased export capacity. According to this logic, the duration of the investment cycle and the structure of the involved assets determine the methods of planning, monitoring and control: for short cycles, operational budgeting tools and flexible KPIs prevail, for capital-intensive projects – a full investment analysis with discounted cash flows, scenario modeling and risk management systems at all phases of the life cycle.

In theory and practice, two basic directions of capital investments are distinguished - financial and real investments. In Ukrainian companies, especially in periods of high uncertainty, there is a tendency to financial instruments (portfolios of shares, equity shares, debt securities) as faster and more liquid ways of placing free funds. This requires compliance with regulatory requirements of the capital market (issuance, circulation, taxation, disclosure of information), which complicates portfolio management and increases the importance of formalized procedures for assessing risk and profitability [11]. At the same time, the dominance of financial investments can limit the strategic ability to grow,

since it is real investments (in production facilities, technologies, logistics, products) that create long-term productivity, innovation and sustainable competitiveness.

Investors external to the enterprise primarily assess the attractiveness of real investments: the scale and structure of capital expenditures, expected efficiency, ability to generate cash flows and maintain profitability in different scenarios. For the correct interpretation of the dynamics of investment activity, indicators adjusted for inflation are used, and the prospects of areas are determined by the structure of investments (the share of modernization, digitalization, R&D, etc.) and their compliance with the company's strategic goals.

For internal management entities, the task is different: to justify the balance between financial and real investments as elements of a single investment policy. In the first step, an investment mandate is formulated (goals, constraints, risk profile, horizon), after which alternatives are compared according to agreed criteria. For financial assets, these are risk-adjusted returns, liquidity, portfolio correlations; for real assets, these are NPV/IRR/PI, discounted cash flows using WACC, sensitivity to key drivers (prices, volumes, CAPEX/OPEX), scenario and stress analysis, including inflationary and currency shocks. If there are several options, multi-criteria ranking is used; then operational monitoring of implementation (plan/fact comparison, milestone control, budget and schedule adjustments). This approach moves the choice of “project or portfolio” from the plane of intuition to the plane of evidence-based analytics [19].

The practical implication for the growth strategy lies in the architecture of the “dual loop”: (1) a liquid financial loop – to maintain flexibility, manage short-term risks and buffer cash gaps; (2) a real investment loop – to increase the production and technological base, product innovation and enter new markets. The proportions between the loops should follow from the company’s strategy, the phases of its life cycle and the current constraints of the external environment.

Such a “link” allows you to turn an investment project into an effective tool for strategic development without losing financial stability in the short term.

After the investment initiative is completed, an ex-post analysis of performance is mandatory. Its purpose is to compare planned and actual indicators, identify the reasons for deviations, record “lessons learned” and update standards for subsequent decisions. It is advisable to assess not only financial results (NPV, IRR, ROIC/EVA, payback period), but also operational and strategic consequences: changes in cost, productivity, service quality, supply chain sustainability, market position, impact on environmental and social indicators. Such an audit cycle closes the “feedback loop” of the investment process and increases the accuracy of future forecasts.

In summary, throughout the investment life cycle, a company applies three complementary types of analysis:

- ex-ante – selection of alternatives, scenario modeling, stress tests, sensitivity to key drivers;
- current (operational, in itinere) – milestone and budget control, plan/actual comparison, schedule and resource adjustments;
- final (ex-post) – reassessment of the value created and updating decision-making standards.

An investment project in this context is a formalized development proposal (expansion, diversification, modernization), containing goals, performance indicators, budget and implementation calendar, description of risks and mechanisms for their hedging. Most often, it is drawn up in the format of a business plan and involves attracting external or internal financing.

Based on the strategic horizon and impact on the business model, it is advisable to distinguish between:

- tactical investment projects – aimed at incremental improvements (increasing volumes, improving quality, replacing/replacing equipment). Their horizon is shorter, the turnover of decisions is higher, and the risks are mostly operational;

- Strategic investment projects – lead to structural shifts (creation of new product lines, entry into other markets, complete technological modernization, investments in R&D, changes in ownership or organizational architecture). They are characterized by a longer horizon, higher irreversibility and systemic risks, but they are the ones that form long-term competitive advantages.

This distinction helps integrate the investment portfolio into the development strategy: tactical projects support operational efficiency and liquidity, while strategic projects create new sources of growth and increase the resilience of the business model in a changing environment.

From a practical point of view, investment activity is expediently organized as a sequential project cycle with clear results of each phase and transition criteria (go/hold/kill). First, the initiative is formulated: a strategic problem or opportunity is diagnosed, the connection with corporate goals is agreed, the value proposition is outlined, an initial assessment of the market and regulatory constraints is carried out. The result of this phase is a substantiated concept note with hypotheses and indicators of success.

The second phase is preparation (feasibility & design): the initiative is detailed to the level of feasibility study, scenarios, a budget, and a calendar are formed, resource needs and a risk map with basic triggers for further management decisions are determined.

The third is independent research/expertise: assumptions are checked (financial, legal, tax, technical, environmental and social aspects), the sensitivity of key parameters is tested; on this basis, the investment committee makes a decision to launch, refine or reject.

The fourth phase is implementation: the management structure, contracting and procurement are organized, work is launched, milestones, budget and performance indicators are monitored, transparent reporting to stakeholders is conducted, and changes are managed.

Fifth - evaluation of results and closure: the achieved financial (NPV, IRR, payback period) and non-financial effects (operational, market, environmental,

social) are compared with target benchmarks, deviations and lessons are recorded, decision-making standards and the portfolio of initiatives are updated.

One of the practical channels for attracting capital for Ukrainian companies is joint ventures and other forms of foreign investors' participation in capital (joint venture, strategic partnership, minority/controlling stakes). Usually, the initiative belongs to the Ukrainian side: it prepares an investment proposal, conducts preliminary verification of potential partners, agrees on corporate governance mechanisms (veto rights, dividend policy, covenants) and the contribution regime (money, equipment, technology, sales channels) (see Figure 1.5).

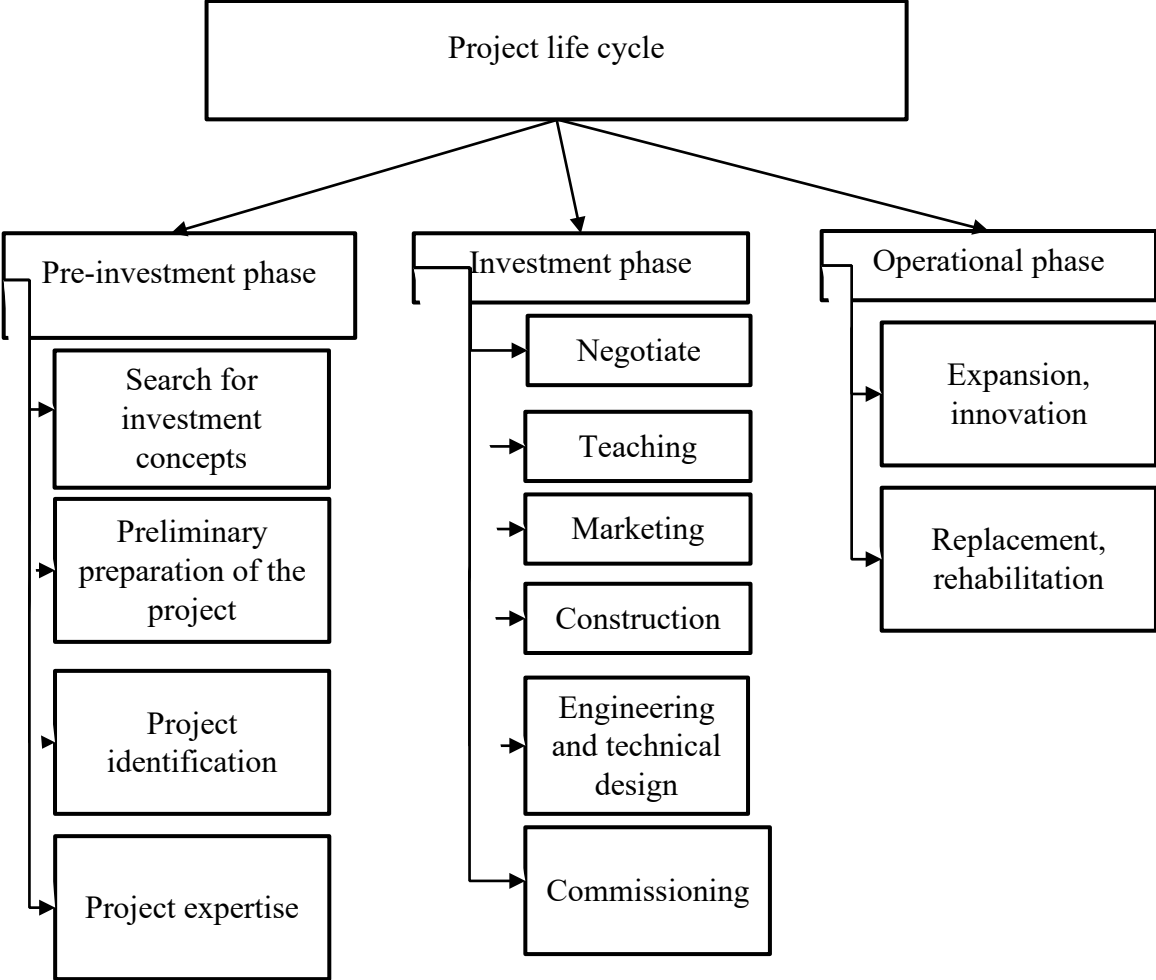


Fig. 1.5. Project life cycle

Source: constructed by the author based on [1]

Generalizing practice allows us to distinguish typical classes of investment projects (each has its own logic of justification and decision-making metrics):

Fixed asset replacement projects. The goal is to maintain reliability and compliance without changing the business model. The rationale is based on TCO/LCC comparisons, downtime reduction effects, energy savings, and regulatory compliance. Decisions are usually made quickly if $NPV > 0$ in the baseline scenario and technical compatibility criteria are met.

Modernization of processes to reduce costs. This includes technological upgrades, automation, digitalization, lean transformation. A deeper sensitivity analysis (energy/raw material prices, capacity utilization) is needed, because “newer” is not always “cheaper” considering the learning curve, implementation risks, and hidden CAPEX/OPEX.

Expansion of capacity or range. The decision is mainly driven by the market: the capacity and availability of sales channels, entry barriers, and competitor reactions are checked. Key conditions are confirmed demand (LOI/contracts), portfolio margin, and the ability to scale without losing service quality.

This division is useful because it sets different “rules of the game” for expertise: for replacement – LCC and reliability are sufficient; for modernization – analysis of implementation risks and effects per unit of cost; for expansion – market verification and the ability of operations to scale. This improves the quality of the selection of initiatives and facilitates dialogue with potential foreign investors who need transparent assumptions, understandable metrics (NPV, IRR, payback, operational efficiency KPIs) and clear mechanisms for managing a joint project.

It is advisable to organize effective investment management as a separate function of the enterprise with clear responsibility: a small investment

office/department is formed, which has competencies in finance, feasibility analysis, procurement, law and risk management. The task of such a unit is to prepare investment initiatives, conduct their expertise, coordinate implementation and provide post-investment monitoring.

The largest share of resources is spent already at the implementation phase of a specific initiative, so the project should be described in a standardized package of documents: the subject of the investment (line modernization, new product launch, process digitalization, etc.), expected effects (commercial and/or social), key assumptions, budget and schedule, risk management model, and performance indicators.

Production investments last from the birth of an idea to the full operation of the facility and go through successive stages.

The pre-investment phase ensures the “correctness” of the idea. First, initial data on the need for investments, potential sources of financing, internal resources and personnel readiness are collected. Then, a preliminary justification is prepared and applied research is carried out: verification of demand and market capacity; availability of raw materials, energy and logistics; selection of location taking into account transportation costs; assessment of environmental impact; comparison of technological alternatives by CAPEX/OPEX, productivity and quality; selection of equipment taking into account budget and supplier constraints. The phase ends with an independent examination of assumptions and risks, after which the initiative moves to detailed design.

The investment phase turns an idea into an asset. Constituent and contractual documents are concluded, a corporate project management model is determined; detailed design, tenders and contracts with contractors and suppliers are carried out; construction, installation and commissioning works, logistics and equipment import are organized; in parallel, the sales market (channels, contracts,

preliminary orders) and personnel training programs are prepared. Content, deadlines, budget and risk control are in effect at all steps; key decisions are made based on approved threshold criteria.

The operational phase begins with the commissioning of the facility and moves into stable production. Here, design parameters are confirmed, maintenance processes are adjusted, safety and environmental regulations are updated, and decisions are made about further scaling, innovative updates or replacement of nodes. It is at this stage that investors approve final financing if the technical, organizational and economic criteria specified at the start of Table 1.4 are met.

Table 1.4

Decision-making algorithm

Feasibility study section	Chapter Contents
1	2
1. Project idea	1.1. Project idea 1.2. Project sponsors 1.3. Main information about the project
2. Market research and marketing strategy	2.1. Macroeconomic analysis 2.2. Market research 2.3. Fundamentals of project strategy 2.4. The basic concept of marketing 2.5. Marketing costs and revenues
3. Raw materials, materials and components	3.1. Specification of the need for raw materials, materials and component products 3.2. Availability of material resources 3.3. Supply strategy, costs of materials and components
4. Location and environment	4.1. Location and environmental analysis 4.2. Final selection of the facility location and cost estimate
5. Engineering and technological part of the project	5.1. Production program and production capacity 5.2. Technology selection, detailed plan and engineering basis of the project 5.3. Equipment selection, construction and installation works

Continuation of table 1.4

1	2
6. Organizational and overhead costs	6.1. Facility organization and management 6.2. Organizational design 6.3. Overhead
7. Human resources (personnel)	7.1. The need for certain categories of personnel) 7.2. Estimate the cost of its maintenance
8. Planning the project implementation process	8.1. Objectives and stages of the project implementation process 8.2. Project implementation schedule 8.3. Total cost calculations
9. Financial analysis and assessment of investment efficiency	9.1. Goals and objectives of financial analysis 9.2. Analysis of project implementation costs 9.3. Methods of economic evaluation of an investment project 9.4. Project financing 9.5. Financial and economic performance indicators enterprises (organizations)

Source: constructed by the author based on [8]

The content of the work within the investment phase typically includes:

- preparation of the legal and organizational structure of the project (management structure, rights and obligations of the parties, provision of financing);
- final design and contracting (tenders, technical specifications, delivery schedules);
- construction/installation and commissioning of the facility;
- market preparation (sales agreements, marketing activities, service support);
- training personnel and launching operations.

After passing the examinations and agreed "checkpoints", a business plan for the investment project is prepared - a concise, unified presentation of the main parameters (goals, scale, budget and sources, expected cash flows, performance

indicators, risks and mitigation measures), which serves as the basis for the final investment decision and further implementation control.

An investment project in the strategic development system acts as a carrier of a long-term vision, a tool for resource allocation and a mechanism for risk management through clear control stages and KPIs. The volume and detail of the business plan should correspond to the scale of the initiative, and its role goes beyond the “document for the investor”: it is a common language for all stakeholders (owners, creditors, team, regulators), a basis for attracting debt and equity capital and a working implementation schedule - from assumptions and budgets to monitoring and adjustment procedures. Through a qualitatively prepared investment project, the enterprise translates strategic intentions into measurable results, adhering to the principles of sustainability and inclusiveness, which is of particular importance in the conditions of war and post-war economic reconstruction.

CHAPTER 2. STRATEGIC MANAGEMENT OF THE DEVELOPMENT OF SMALL AND MEDIUM-SIZED ENTERPRISES

2.1. Organizational and economic characteristics of a medium-sized enterprise

Limited Liability Company "DON-TERMINAL" was founded in 1994 and is currently one of the leading Ukrainian distributors of lubricants and technical fluids. The reputation of a reliable supplier has been formed thanks to the combination of qualified personnel, well-established logistics infrastructure and long-term partnerships with manufacturers. The company is an official distributor of TotalEnergies (France) and ORLEN Oil (Poland), which provides access to certified products with international approvals and strengthens its position in the market of industrial and automotive lubricants.

The enterprise operates in the form of an LLC (private ownership), registered in Kharkiv (3 Tarasivska St.; EDRPOU 33109845). The authorized capital is 540 thousand UAH; the shares of the two founders are equal (50% each), which determines joint responsibility for strategic decisions and symmetry of influence on corporate governance. This ownership structure is typical for SMEs and contributes to quick coordination in matters of investment and expansion of sales channels.

According to the KVED, the key activity is wholesale trade in energy resources (in particular, lubricants and technical fluids). Additional areas are maintenance and repair of motor vehicles, sale of auto components, non-specialized wholesale trade, trucking, and certain operations with metals. This combination of activities performs two functions: first, it reduces sensitivity to fluctuations in demand for individual product categories; second, it creates opportunities for vertical and horizontal integration of services (from import and warehousing to the last mile and after-sales support for B2B/B2C customers).

The activities of LLC "DON-TERMINAL" are regulated by the Charter, which determines the legal status, management structure and key principles of

operation. The enterprise is a legal entity under private law with full economic legal personality: it owns separate property, maintains an independent balance sheet, has bank accounts, a seal and means of individualization (in particular, a trademark). Such status provides autonomy in planning commercial activities, choosing forms of interaction with counterparties, as well as in forming a portfolio of partnerships and sales channels.

The charter provides for an expandable organizational model: the company can create subsidiaries, open branches and participate in new legal entities. For a medium-sized distributor, this is an important scaling tool - it allows for flexible structuring of logistics (warehouses, "last mile" hubs) and separation of service areas, which directly affect the speed of inventory turnover and the level of service for B2B clients.

The goal of the activity is to achieve economic efficiency and profitability while maintaining social utility (quality and safety of products, reliability of supplies, responsibility in business relations). Profit is distributed among participants in proportion to shares in the authorized capital, which supports the transparency of corporate governance and aligns the interests of owners with the strategic goals of the company.

The scope of activity is formulated broadly and covers wholesale and retail trade in lubricants and fuel, transportation services, operations with auto components and related industrial goods, as well as other types of commercial activity not prohibited by law. In practical terms, this means a diversified revenue profile and the ability to combine trade, logistics and service flows in a single operational circuit.

The company is authorized to carry out foreign economic activities: to conclude international agreements, import lubricants and technical fluids, and export individual items of the assortment. The presence of foreign economic activities competencies strengthens the negotiating position with manufacturers,

simplifies access to product lines with international approvals, and creates the basis for further integration into transnational supply chains.

The corporate governance system of LLC DON-TERMINAL is built on a three-level principle: general meeting of participants–supervisory board–executive body. The general meeting serves as a source of strategic legitimacy: it is here that long-term development guidelines are determined, amendments to the Charter and authorized capital are approved, control and management bodies are formed and recalled, and annual financial results are approved. The regularity of annual meetings, combined with the possibility of extraordinary convocation, ensures the manageability of strategic changes and timely response to market challenges.

The Supervisory Board performs the functions of strategic control and risk monitoring: it approves key policies (investment, dividend, compliance), monitors the implementation of goals delegated to management, and ensures transparency of interaction with stakeholders. This division of roles allows for a clear separation of the “what” (strategic results) from the “how” (operational implementation).

The operational activities are led by the director as a sole executive body, authorized to implement the decisions of the owners and the supervisory board, manage resources, conclude contracts and ensure the achievement of agreed KPIs. The contractual model defines the scope of authority, personal responsibility and performance targets, which strengthens manageability and accountability.

The personnel policy and internal organization are formed by the enterprise independently: the staff structure and schedule are approved, the remuneration system, procedures for personnel selection and development are determined in compliance with labor legislation. In combination with the functional division of responsibility (sales and work with key customers; procurement and logistics; service and technical support; finance and accounting; compliance and labor protection), this creates a manageable operational contour and reduces process

risks. A visual model of subordination and coordination of units is shown in Fig. 2.1.

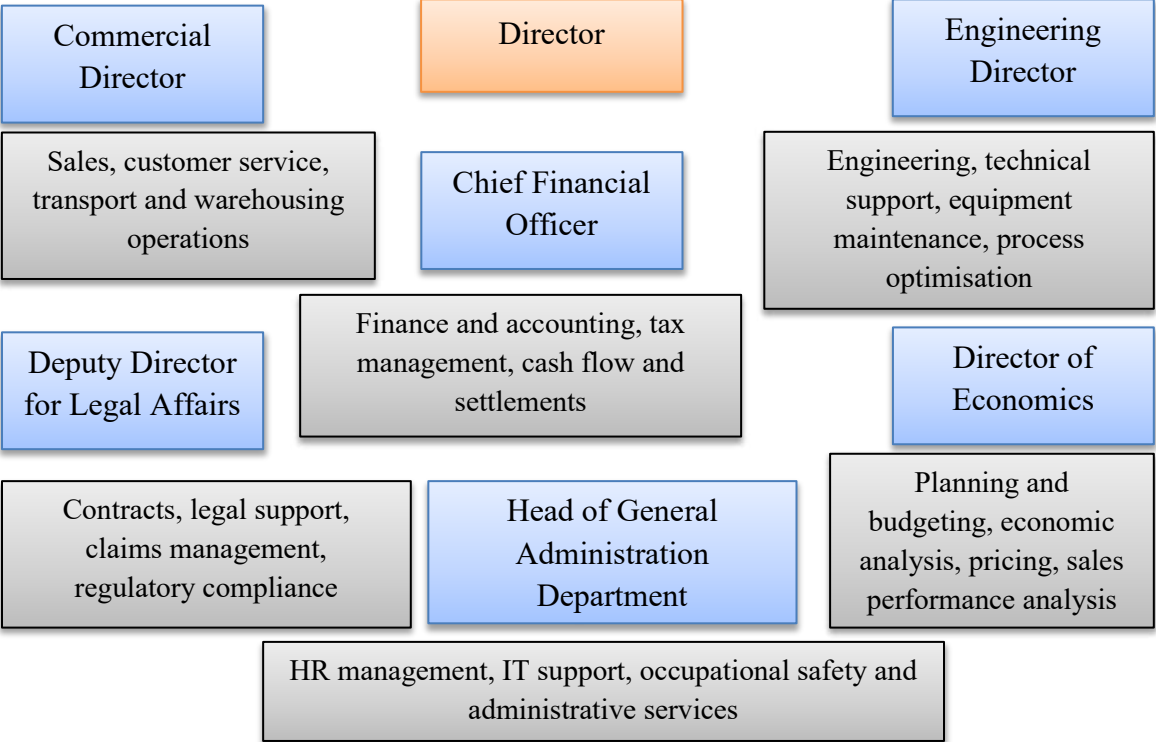


Fig. 2.1. Scheme of the management structure of LLC "DON-TERMINAL"

Source: built by the author

The management model of LLC "DON-TERMINAL" is built as a centralized vertical with a clear division of powers and areas of responsibility. The Director exercises general management, coordinates the interaction of functional units and is responsible for translating strategic goals into operational plans. The commercial, financial and accounting functions, engineering, legal support and the administrative (general) department are directly subordinate to the Director, which ensures the consistency of decisions at the "profit center–cost centers" level.

The financial and accounting circuit is represented by the financial director and the chief accountant. The first focuses on budgeting, liquidity management and investment decisions; the second provides the methodology and accounting discipline, forms reliable financial reporting and monitors compliance of

procedures with current standards. Such a dualism of "finance & accounting" reduces the risks of data distortion and enhances the quality of management decisions.

The commercial unit is responsible for the implementation of the product strategy and operational logistics. It includes the sales department (sales managers, key account specialists and advisory support) and the transport and warehouse division (logistics, drivers, storekeepers). Unified coordination of demand, inventory and service allows you to maintain the regulatory level of working capital, reduce order fulfillment time and ensure stable quality of service for B2B clients.

The technical circuit is headed by the Engineering Director: he is responsible for technical support for customers, introduction of new products, testing and implementation of service solutions (including regulations for storage and use of lubricants). Legal support ensures contractual security, claims and litigation work and compliance, which is critically important for the distribution of branded lubricants and work with European counterparties.

The HR policy is implemented by the HR manager: selection and assessment of candidates, adaptation, advanced training, support of corporate interaction. Final HR decisions are made by the director, who maintains the integrity of the HR strategy and its consistency with strategic priorities.

The regulatory and methodological framework is organized and includes: Charter; staffing and job descriptions; labor protection instructions; order on accounting policy; annual strategic orders with goals and KPIs; documents on the development of corporate culture. The presence of such a "system of rules" ensures repeatability of processes, transparency of responsibility, and manageability of changes.

The content and structure of the product portfolio of LLC DON-TERMINAL indicate a well-established model of a medium-scale distribution business, combining industrial and transport segments, service solutions and

environmentally friendly products. The breadth of the line (industrial and automotive oils, special lubricants, technical fluids, including AdBlue and biodegradable lubricants) ensures diversification of demand between industries, reduces sensitivity to cyclical fluctuations and allows to level out cash flows due to various seasonal peaks. The focus on products with confirmed compliance with European standards, as well as on the use of modern additives and technologies, forms a clear value proposition: extending the life of customers' equipment and engines, stable quality and predictability of operating costs.

For the company, this means that the product portfolio performs not only a commercial, but also a strategic function: it sets logistics and inventory priorities (SKU policy and stock rationing), determines the architecture of sales channels (B2B in industry, transport and logistics and agricultural segments), forms requirements for personnel competencies (technical pre-sales, after-sales support, quality compliance) and maintains partnerships with lubricant manufacturers. The presence of environmentally sensitive positions (AdBlue, biolubricants) enhances compliance with modern regulatory trends and increases the trust of corporate clients, for whom ESG criteria are becoming important.

2.2. Analysis of strategic potential and assessment of financial and economic indicators

To assess the strategic potential of LLC "DON-TERMINAL", a financial and economic overview of activities for the three-year period 2022–2024 was used based on the company's official reporting. The structure of the selection of indicators corresponds to the logic of the result formation:

- revenue and cost of sales – to measure the volume of activity and gross margin;

- administrative and sales expenses, other operating income/expenses – to assess operating efficiency;
- operating profit, other financial income and financial expenses – to capture the impact of non-fundamental factors and the cost of capital;
- profit before tax, tax expenses and net profit – as an integrated financial result.

Horizontal analysis (absolute deviations and growth rates for 2023/2022 and 2024/2023) was methodically applied, which provides a basis for further factor decomposition of changes and linking financial results with elements of strategic potential (gross margin stability, OPEXS manageability, interest burden, investment capacity). Table 2.1 summarizes indicators that reflect the operating model of a lubricant distributor and allow us to trace changes in scale, margin and cost discipline in the conditions of price and logistics volatility of wartime.

Table 2.1

**Main performance indicators of LLC "DON - TERMINAL"
for 2022-2024.**

Indicator	Thousand UAH			Deviation			
				Absolute, thousand UAH.		Growth rate, %	
	2022	2023	2024	2023/22	2024/23	2023/22	2024/23
Net income from implementation	227 607	391 676	347 269	164 069	-44 407	72,08	-11,34
Cost of implementation	168 160	302 196	266 808	134036	-35388	79,71	-11,71
Gross profit	59 447	89 480	80 461	30033	-9019	50,52	-10,08
Other operating income	104	210	555	106	345	101,92	164,29
Administrative costs	8 461	10 745	9 817	2284	-928	26,99	-8,64
Selling expenses	41 435	69 915	58 159	28480	-11756	68,73	-16,81
Other operating expenses	5 697	2 436	1 884	-3261	-552	-57,24	-22,66
Operating profit	3 958	6 594	11 156	2636	4562	66,60	69,18
Other financial income	216	2 776	3 175	2560	399	1185,19	14,37
Financial costs	130	279	221	149	-58	114,62	-20,79
Profit before tax	4 044	9 091	14 110	5047	5019	124,80	55,21
Income tax expenses	728	1 642	2 540	914	898	125,55	54,69
Net profit	3 316	7 449	11 570	4133	4121	124,64	55,32

Source: constructed by the author based on financial statements

Analysis of the dynamics of net sales revenue shows a significant increase in volumes in 2023 compared to 2022 by UAH 164,069 thousand (-72.08%). This growth was accompanied by an outpacing increase in cost (-79.71%), due to which gross profit, despite an increase of UAH 30,033 thousand (-50.52%), lost some of its margin. This configuration indicates high cost pressure on gross margin in the sales scaling phase and requires further verification of the sensitivity of the margin to procurement prices, logistics, and exchange rate fluctuations.

In 2024, a correction in revenue (-44,407 thousand UAH; -11.34%) and a synchronous reduction in cost (-35,388 thousand UAH; -11.71%) were recorded. This allowed us to retain part of the gross value added created in the previous phase: gross profit decreased by 9,019 thousand UAH (-10.08%), which is softer than the decline in revenue and may indicate some improvement in operational cost discipline.

There is a noticeable shift in the structure of operating results: other operating income in 2024 amounted to UAH 555 thousand (more than twice as much as in 2023), in parallel with a significant decrease in other operating expenses. The cumulative effect is an increase in operating profit from UAH 6,594 thousand in 2023 to UAH 11,156 thousand in 2024 (-69.18%). This indicates an improvement in operating efficiency beyond the gross margin (work with sales and administrative items, contract policy, logistics).

The financial component was heterogeneous: in 2023, other financial income increased by more than 12 times compared to 2022, which is typically correlated with the revaluation of currency items or the yield on short financial instruments; in 2024, financial expenses decreased by 20.79%. The impact of these components is positive for the net result, but their sustainability is usually

lower than the operating core, so it is advisable to treat them as an additional, rather than a basic, profitability driver.

Total net profit increased from UAH 3,316 thousand (2022) to UAH 11,570 thousand (2024), i.e. by UAH 8,254 thousand (-249%). The dynamics reflect a combination of scaling/revenue adjustment effects, control over operating expenses, and favorable financial factors. From a strategic perspective, this signals the company's ability to maintain a positive profitability trajectory in a changing environment, while the focus of further analysis should be on stabilizing gross margin and reinforcing operating results with sources with high reproducibility.

Analysis of financial and economic indicators of LLC DON-TERMINAL for 2022–2024 records the uneven trajectory of revenue and profit. In 2023, net income increased by 72.08% compared to 2022, which reflects the phase of scaling sales after the previous decline. In 2024, a correction in revenue (–11.34%) was recorded with a simultaneous increase in operating efficiency: profitability improved primarily due to cost reduction and reformatting of operating items. This configuration indicates that the current value creation model relies more on cost control and productivity improvement than on extensive revenue growth. To more fully utilize market potential, further analysis should highlight the contribution of the structure of the customer portfolio and consumption industries, the logistics component and supply conditions, and the results of pricing and contract policies.

The dynamics of key financial results is illustrated in Fig. 2.2.

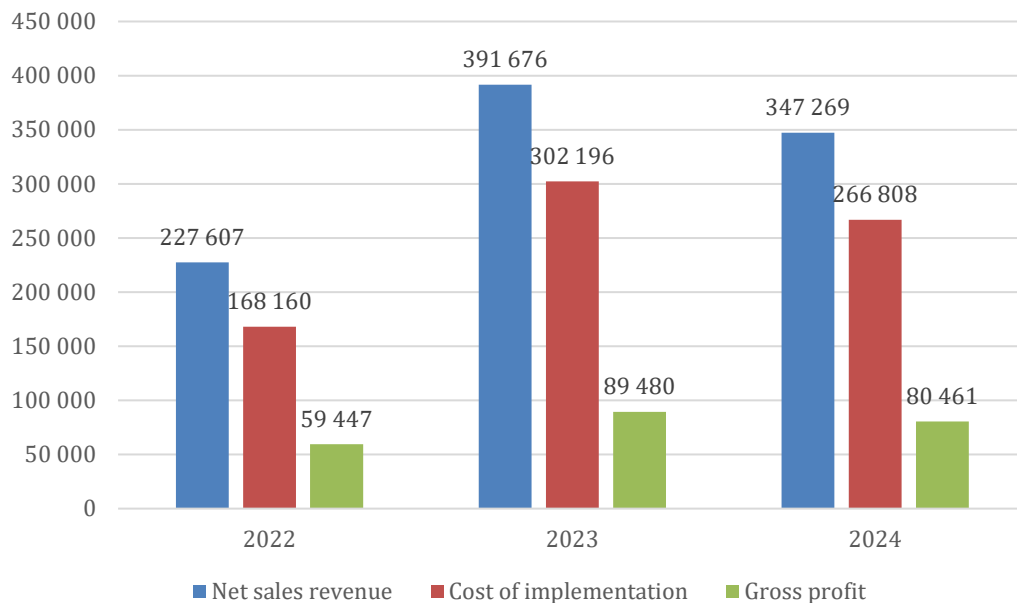


Fig. 2.2. Change in financial indicators from the sale of products and services of LLC "DON-TERMINAL" in 2022–2024, thousand UAH.

Source: built by the author

In 2022–2024, the profitability configuration of LLC “DON-TERMINAL” was determined by a combination of (i) changes in the structure of operating income and (ii) reformatting expenses. In terms of income, a consistent increase in “other operating income” is recorded: +106 thousand UAH in 2023 (+101.92% by 2022) and another +345 thousand UAH in 2024 (+164.29% by 2023). In terms of expenses, a synchronous “lightening” of the profile took place: other operating expenses were reduced by 3,261 thousand UAH in 2023 (–57.24%) and by 552 thousand UAH in 2024 (–22.66%). Administrative expenses after expansion in 2023 (+2,284 thousand UAH; +26.99%) were optimized in 2024 (–928 thousand UAH; –8.64% by 2023). Similarly, sales expenses: growth in 2023 (+28,480 thousand UAH; +68.73%) was replaced by a correction in 2024 (–11,756 thousand UAH; –16.81%).

The total effect of these changes was manifested in a steady increase in operating profit: +2,636 thousand UAH in 2023 (+66.6% compared to 2022) and another +4,562 thousand UAH in 2024 (+69.18% compared to 2023). Additional support for the financial result was provided by other financial income (in 2023 +2,560 thousand UAH; +1,185.19%; in 2024 +399 thousand UAH) with a simultaneous decrease in financial expenses in 2024 (–58 thousand UAH; –20.79%).

As a result, net profit increased from UAH 3,316 thousand (2022) to UAH 7,449 thousand (2023; +124.64%) and UAH 11,570 thousand (2024; +55.32% by 2023). This trajectory indicates that the improvement in performance in 2024 is more correlated with cost optimization and the structure of “other” income than with revenue growth, and requires substantive verification by expense items. Further details are provided in Table 2.2.

Table 2.2

**Structural and dynamic analysis of operating costs
LLC "DON-TERMINAL" in 2022–2024.**

Indicator	2022		2023		2024		Absolute deviation, thousand UAH.		Growth rate, %	
	thousa nd UAH	%	thousa nd UAH	%	thousa nd UAH	%	2023 /2022	2024 /2023	2023 /2022	2024 /2023
Material costs	11 310	20,35	12 073	14,54	11 675	16,71	763	-398	6,75	-3,30
Labor costs	5 562	10,01	5 167	6,22	5 805	8,31	-395	638	-7,10	12,35
Deductions for social events	1 226	2,21	1 158	1,39	1 310	1,88	-68	152	-5,55	13,13
Amortization	1 355	2,44	1 464	1,76	1 090	1,56	109	-374	8,04	-25,55
Other operating expenses	36 122	65,00	63 186	76,08	49 980	71,54	27064	-13206	74,92	-20,90
Together	55 575	100	83 048	100	69 860	100	27473	-13188	49,43	-15,88

Source: constructed by the author based on financial statements

Analysis of Table 2.2 shows that in 2023 there was a significant expansion of the cost base: total operating expenses increased by UAH 27,473 thousand (+49.43% compared to 2022). In 2024, there is a partial revision of expenses - minus UAH 13,188 thousand (-15.88% compared to 2023), which indicates the launch of internal optimization programs (review of conditions with counterparties, procurement discipline, correction of function budgets). Such a trajectory is typical for recovery phases of the market: first, expenses “catch up” with the operating scale, then management equalizes efficiency.

The cost structure for 2022–2024 is characterized by the dominance of the item “other operating expenses”: 65.0% (2022), 76.08% (2023), 71.54% (2024). For the distribution business, this may reflect a high share of related costs of providing the service (warehouse infrastructure, logistics services of third-party providers, insurance, exchange rate differences, write-offs, provisions for expected credit losses, etc.). At the same time, such a concentration of costs in “other” items carries an analytical risk: aggregation reduces the transparency of cost drivers and complicates managerial control.

From the perspective of strategic potential, it is advisable to: (i) detail “other operating” to at least 5–7 sub-items with regular monitoring of their elasticity to revenue; (ii) separate factors that are not dependent on management (exchange rate differences, regulatory fees) and those that are subject to management (outsourced logistics, storage, insurance, claims work); (iii) link key sub-items to operational KPIs (warehouse turnover, order completeness, on-time deliveries, level of returns). This will allow moving from a “reactive” cost reduction in 2024 to a systematic increase in operating margin in subsequent periods.

Graphical visualization (Fig. 2.3) confirms the consistently high share of “other operating expenses”. In further analysis, it is advisable to compare the change in their structure with the dynamics of gross margin and working capital

to assess whether the decrease in 2024 is the result of one-time adjustments or the consequence of sustainable efficiency practices.

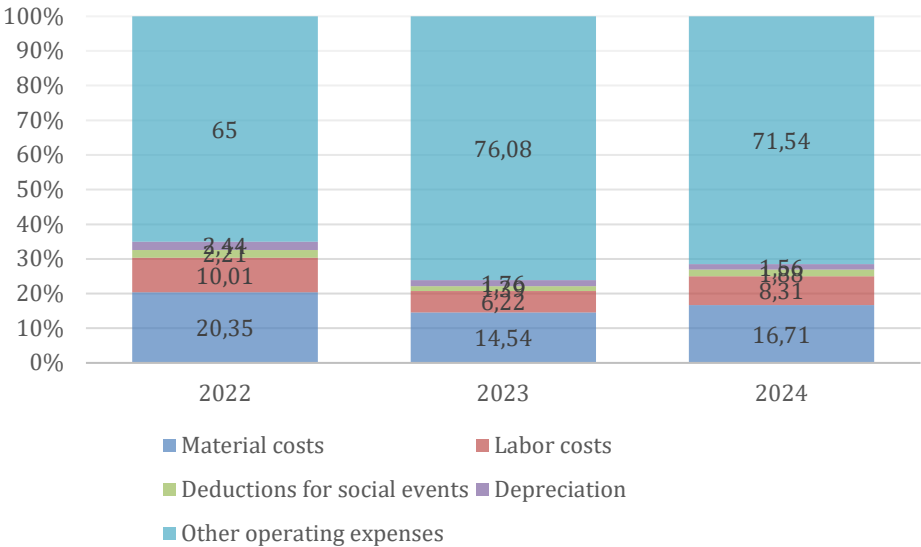


Fig. 2.3. Components of operating expenses of LLC "DON-TERMINAL" in 2022–2024.

Source: built by the author

Further dynamics confirm the key role of controlling the item “other operating expenses”: it is its fluctuations that determine the trajectory of operating efficiency and the sensitivity of the margin to external shocks. The group of material expenses remains the second most stable in terms of specific weight. Their share decreased from 20.35% (2022) to 14.54% (2023), while in absolute terms this category remains significant given the material-intensive nature of the lubricants distribution business. Labor costs occupy the third position: 10.01% (2022), 6.22% (2023) and 8.31% (2024), which reflects the combination of the effects of adapting the number and productivity of personnel with the correction of compensation packages.

Depreciation and social security contributions have a relatively small but stable share, acting more like a “fixed background” of costs. For lubricant distribution, material costs are formed mainly in the areas of energy supply of warehouse infrastructure, costs of fuel and lubricants for transportation, utilities,

operating costs of warehouses and transport fleet; they set the basic elasticity of cost to changes in transaction volumes.

In view of this, it is advisable to move from stating the cost structure to measuring the efficiency of resource use. To assess the capacities involved and operational productivity, indicators are needed that reflect: fixed asset return, material consumption and material return, labor intensity and revenue per employee, inventory turnover and operating cycle duration. Further analysis focuses on identifying bottlenecks in the use of fixed assets, material resources and labor potential and their impact on the margin and cash flows of the enterprise Table 2.3.

Table 2.3

Resource efficiency indicators
LLC "DON - TERMINAL" in 2022-24

Indicator	Value			Deviation			
				Absol.		Growth rate, %	
	2022	2023	2024	2023/22	2024/23	2023/22	2024/23
Cost of fixed assets (fixed assets) at the beginning of the year, thousand UAH	3 028	2 345	2 663	-683	318	-22,56	13,56
Cost of health insurance at the end of the year, thousand UAH	2 345	2 663	2 105	318	-558	13,56	-20,95
Average annual cost of health care, thousand UAH.	2 687	2504	2384	-183	-120	-6,81	-4,79
Material costs, thousand UAH.	11 310	12 073	11 675	763	-398	6,75	-3,30
Average number of employees, people	66	64	54	-2	-10	-3,03	-15,63
Net sales revenue, thousand UAH.	227 607	391 676	347 269	164069	-44407	72,08	-11,34
Return on investment, UAH/UAH	84,71	156,42	145,67	71,71	-10,75	84,65	-6,87
Capital intensity, UAH/UAH	0,012	0,006	0,007	-0,01	0,00	-50,00	16,67
Material yield, UAH/UAH	20,12	32,44	29,74	12,32	-2,70	61,23	-8,32
Material consumption, UAH/UAH	0,050	0,031	0,034	-0,02	0,00	-38,00	9,68
Labor productivity, thousand UAH/person	3448,59	6119,94	6430,91	2671,35	310,97	77,46	5,08

Source: constructed by the author based on financial statements

Analysis of the dynamics (Table 2.3) shows a significant increase in return on assets in 2023 compared to 2022, reflecting better utilization and more productive use of fixed assets. In 2024, there is a moderate decrease in return on assets (and a corresponding increase in capital intensity), which should be interpreted as a consequence of a combination of several factors: a partial cooling of demand, an increase in “unloaded” capacity (for example, warehouse and transport), as well as a possible effect of the price situation, which reduced the return on each hryvnia of the funds involved.

A similar trajectory is demonstrated by indicators of the use of material resources: in 2023, material efficiency was maximum, which indicates a more economical conversion of resources into revenue due to the optimization of logistics, cost norms and procurement policy. The lowest values in 2022 are fully consistent with the background shocks of the war period (disruptions in supply chains, increased costs for energy and transport). In 2024, part of the achieved effect was lost, which indicates an increased sensitivity of the material-intensive distribution model to fluctuations in external costs.

For correct interpretations, it is advisable to normalize these trends for price effects (revenue deflator, purchase price indices) and take into account accounting events (revaluation/mark-up of inventory, change in inventory accounting methodology).

A graphical representation of the dynamics of capital and material returns is shown in Fig. 2.4.

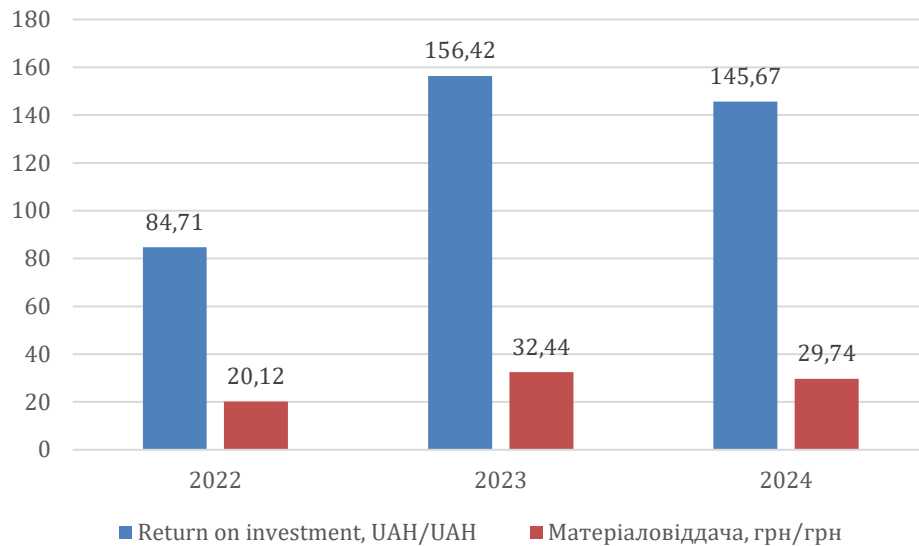


Fig. 2.4. Analysis of the efficiency of use of fixed assets and material resources of LLC "DON-TERMINAL" in 2022–2024.

Source: built by the author

A comparison of financial and economic results with labor productivity indicators confirms the increase in the efficiency of using labor potential: in 2023, productivity increased by 77.46% compared to 2022, and in 2024 it maintained an upward trend (+5.08%). The combination of this effect with the optimization of the cost structure (primarily in the blocks of sales, administrative and "other" operating expenses) ensured a stable increase in operating and net profit despite the decrease in revenue in 2024. Gross profit decreased more moderately than income, which indicates increased margin discipline and better cost control.

The cumulative dynamics for 2022–2024 indicate the stability of the business model of Don-Terminal LLC and the ability of management to maintain profitability in a changing environment. The company demonstrates resource efficiency (higher return on assets and material return in 2023 with a partial correction in 2024), improved operational efficiency and a balanced financial burden (reduction in financial expenses, growth in other income). Together, these factors form a strategic margin of safety sufficient for further commercialization

of competencies in the lubricants market and scaling the created value without a critical increase in risk.

2.3. Strategic management analysis and problem identification

The degree of maturity of strategic management in medium-sized businesses is determined not so much by the presence of separate documents as by the consistency of guidelines, processes and responsibilities in daily management. For LLC "DON-TERMINAL" it is critical to the extent to which clearly articulated long-term guidelines (mission, vision, values, strategic goals) are translated into specific action programs in lubricant distribution, service and logistics, as well as how these programs are supported by resources, performance indicators and a control system.

The current state indicates a partial formalization of strategic guidelines: individual elements are declared, but not combined into a single, operationally suitable system. Key decision-making is predominantly director-centric in nature with the situational involvement of functional managers (commercial, financial, engineering), which ensures speed of response, but limits the reproducibility of processes and complicates scaling. The lack of a regulated sequence of the strategic cycle (regular analysis of the environment, setting goals, choosing strategies, cascading tasks, budgets, KPI/OKR, monitoring and adjustment) leads to fragmentation of initiatives and a partial loss of synergy between divisions.

To objectively assess the effectiveness of strategic planning implementation, we will further systematize the key elements of the enterprise's strategic management in three interrelated areas:

1. development guidelines (mission, vision, goals and policies, including aspects of sustainability and responsibility to stakeholders),
2. organizational responsibility and role interactions (subjects of strategy development and implementation, coordination mechanisms),

3. process and instrumental support (regulations, analytical procedures, indicators, budgeting, risk management, IT support and performance reporting).

A generalized description of these components and the identified maturity gaps is presented in Table 2.4, which serves as a basis for further diagnosis of problems and the formation of targeted management decisions.

Table 2.4

**Assessment of the features of strategic planning in
LLC "DON-TERMINAL"**

Component	Presence at the enterprise
Company mission	formed
Purpose of the enterprise	formed, does not meet SMART principles
Strategic values	formed
Development strategy	not developed
Strategic plans	not developed
Separate strategic planning/management department	missing
Separate position of a specialist in the field of strategic management	absent

Source: built by the author

Strategic planning at DON-TERMINAL LLC is selective: basic guidelines (mission, vision, values) are formulated and operationally used in sales and service, but are not consolidated into a single long-term program with clear priorities, metrics and responsibilities. The declared mission – to provide the industrial and transport sectors, as well as individual consumers with high-quality lubricants and professional consulting – corresponds to the company's profile; the strategic ambition to strengthen its position in the national market correlates with current competencies. At the same time, the absence of a specialized strategic management function (goal-setting processes, cascading, budgeting, risk management, performance monitoring) reduces the reproducibility of management decisions and complicates scaling.

Despite this, the company systematically monitors the external environment and responds to its changes, which indicates the presence of elements of a strategic approach. For further diagnostics, it is advisable to distinguish between the immediate environment (customers, suppliers, competitors, regulators) and factors of wider influence - economic, political, social, technological, as well as environmental, which form the context of decision-making in the war and post-war periods. Given the industry specifics of lubricant distribution and logistical constraints, it is macro factors that determine the limits of growth: fluctuations in demand in basic industries, tax, customs and currency policy, availability of financing, requirements for safe operation and environmental standards, the pace of digitalization of supply chains. Table 2.5 presents a PEST assessment of key factors indicating their nature and strength of influence on the company's activities.

Table 2.5

**Analysis of the external environment of activity
Don-Terminal LLC using the PEST method**

Category	Factor	Impact on the enterprise
Political	Changes in legislation regarding fuel and lubricants	Determine regulatory conditions for the import, taxation, storage and sale of lubricants
	Political stability	Affects strategic planning capabilities, logistics, and investment attractiveness
Economical	Inflation rate	Reduces consumer purchasing power and increases production and logistics costs
	Currency fluctuations	Complicates price forecasting of imported products and financial planning
	Unemployment	Indirectly reduces demand in the consumer segment (B2C)
Social	Increasing demand for environmentally friendly lubricants	Creates new opportunities for expanding the range, taking into account environmental requirements
	Changing consumer priorities	Strengthens the need for digitalization of service and development of online sales
Technological	Innovations in logistics	Allows you to optimize costs for transportation and storage of products
	High cost of IT infrastructure	May inhibit the implementation of digital solutions without proper investment planning

Source: built by the author

Political and regulatory factors are crucial for Don-Terminal LLC due to increased requirements for the circulation of fuels and lubricants, labeling, environmental safety, and transportation of dangerous goods. The sustainability of operations directly depends on the company's ability to maintain constant regulatory monitoring, quickly adapt contracts and logistics to new regulations, and institutionalize compliance as a regular function (regulations, responsible persons, audit).

Economic conditions (inflation, exchange rate volatility, uneven solvent demand from B2B clients) increase price risks for import-dependent assortment. It is advisable for the enterprise to switch from static pricing to a managed margin policy: introduce exchange rate-dependent clauses in contracts, differentiate the mark-up by segments, apply moving averages when planning purchases, and maintain a “cushion” of quick-liquid stock with a clear turnover rate.

Social trends are shaping the field of growth: the demand for environmentally friendly lubricants (low-ash, biodegradable, energy-efficient) is combined with the expectation of transparency in supply and service support. This opens up opportunities for positioning through the ESG component: validation of supplier certifications, development of consultations on the selection of lubricants for the client's requirements for occupational health and environment, communication of measurable effects (reduction of downtime, reduction of energy/fuel consumption).

Technological factors create productivity reserves. The greatest multiplier effect will be provided by: CRM with end-to-end analytics (from lead to repeat purchase), TMS/WMS for logistics and warehouse, electronic document management and integrated demand/inventory planning (Demand Planning + Reorder point, ABC/XYZ classification). It is advisable to combine technological investments with change management: staff training, KPI updates, pilot launches with subsequent scaling.

The combined interpretation of external factors shows: the company's market position remains stable, but further growth requires targeted adaptation in four vectors - regulatory compliance as a continuous process; diversification of supply channels and geographies; digitalization of key business processes; expansion of the "green" product line and services with measurable customer benefits.

The financial and economic results of Don-Terminal LLC for 2022–2024 indicate signs of financial stability and increased efficiency of operations in conditions of increased macroeconomic turbulence. Positive profitability dynamics are combined with moderate revenue volatility, which necessitates a holistic assessment of the strategic position of the enterprise not only through financial metrics, but also through the prism of market, operational and institutional factors.

To this end, we summarize the previous conclusions of the PEST analysis and financial and economic diagnostics in the SWOT format. This approach allows:

- systematically identify internal advantages and limitations related to resources, processes, and competencies;
- correlate them with external opportunities and threats of the lubricants market, taking into account regulatory, technological and logistical factors;
- outline priorities for further formation of a portfolio of strategic initiatives (diversification of supply channels, digitalization of sales and logistics, expansion of the "green" product line, strengthening compliance and the service component).

The results of the SWOT analysis of Don-Terminal LLC are summarized in Table 2.6.

Table 2.6

Assessment of LLC "Don-Terminal" using the SWOT method

Strengths	Weaknesses
Stable growth in operating profit, indicating rational use of resources	Significant amount of accounts payable, which may complicate financial stability and solvency
Positive dynamics of net profit over several reporting periods	Limited working capital, which hinders operational financial planning and flexibility
High share of current assets in the overall balance sheet structure, which supports liquidity	Insufficient level of investment in long-term assets, including modernization and innovative solutions
Opportunities	Threats
The expansion of the market for environmentally friendly products opens up new prospects for increasing market share	Inflationary processes and rising production costs make it difficult to maintain competitive price advantages
Expansion of sales geography, especially in the agricultural and transport service sectors	Exchange rate fluctuations and dependence on lubricant imports create currency risks
Potential for establishing long-term contracts with large clients in the B2B sector	Intensification of competition in the national market by large companies with a similar profile of activity

Source: built by the author

Among the key strengths of Don-Terminal LLC are stable partnerships with international lubricant manufacturers (TotalEnergies, ORLEN Oil), which ensures proven product quality and trust from B2B clients. Additional competitive advantages are extensive logistics capabilities, a coordinated management vertical and a wide product portfolio - from automotive to industrial lubricants, which allows serving several industry segments (auto, agro, industry) without losing operational flexibility.

At the same time, a number of internal limitations typical of SME companies were identified. First of all, these are insufficient brand recognition in end markets and a weak digital presence: the lack of a full-fledged CRM architecture, limited use of social networks and personalized communication

narrow the possibilities of scaling sales and managing the customer lifecycle. There is also a lack of systematic marketing analytics and content strategy that would support long-term customer retention and the development of affiliate programs.

The external environment is also creating significant opportunities. Growing demand for lubricants in the agricultural and construction sectors, modernization of technology parks, and increased service quality requirements are opening up space for expanding B2B contracts. Sales channels are rapidly shifting towards marketplaces and specialized B2B platforms; government programs to support SME digitalization and grant instruments are making investments in IT infrastructure more affordable.

Key threats include intensifying competition, logistical disruptions and geopolitical risks, as well as inflationary and currency pressures that increase the cost of imported products and complicate pricing. Growing customer expectations for speed of delivery and service increase sensitivity to any operational disruptions.

It is advisable to transform the obtained results into clear strategic guidelines for the SME format of "Don Terminal":

- SO-vector (exploitation of strengths for market opportunities): deepening industry specialization in the agricultural and construction segments through service packages "for application" (selection of lubricants, service regulations, warranty programs), using the brand trust of international partners.
- WO-vector (overcoming weaknesses through opportunities): phased implementation of CRM and marketing automation, launch of omnichannel B2B sales (customer's own account, integration with marketplaces), attraction of digitalization co-financing programs.
- ST-vector (neutralization of threats through strengths): diversification of suppliers and insurance of supply chains, standardization of SLAs for key

customers; use of the reputation of an official distributor to counteract "gray" imports.

- WT-vector (minimization of risks under existing restrictions): increasing cost transparency and price elasticity through TCO models for customers, focusing on long-term contracts with fixed service parameters and indexation mechanisms.

To choose a strategic direction, it is appropriate to use the SPACE (Strategic Position and Action Evaluation) model, which compares four positioning vectors: financial strength (FS), competitiveness (CA), environmental stability (ES), and industry attractiveness (IS). The assessment is carried out on a scale from -6 to +6, where positive values indicate strong positions/opportunities, and negative values indicate weaknesses/threats.

Conditionally, the following indicative scores with reasoning were obtained for LLC "DON-TERMINAL":

- FS = +3. Sustained cash flows, work with international manufacturers (TotalEnergies, ORLEN Oil), moderate business activity even with revenue fluctuations indicate a sufficient margin of financial stability for phased investments (digital infrastructure, CRM, website).
- CA = -2. Insufficient brand awareness among end segments, weak digital presence, and unimplemented marketing automation reduce relative competitive strength despite a high-quality product portfolio and service.
- ES = -4. The market environment remains turbulent: currency and inflation volatility, logistical risks, increased "gray" competition, the influence of military factors.
- IS = +4. The industry retains potential due to modernization of equipment in the agricultural/construction sector, expansion of service, and demand for high-quality lubricants.

The overall positioning forms a vector in the "competitive growth" zone: a combination of sufficient financial capacity and industry attractiveness with simultaneous pressure from external instability and the need to strengthen market power. For such a profile, a selective scaling strategy is appropriate: investing in digital channels and CRM analytics, developing omnichannel B2B sales, increasing brand awareness, as well as insuring supply chains and diversifying import flows.

Table 2.7

**Assessment of the strategic position of LLC "DON TERMINAL"
according to the SPACE model**

Component	Rating
FS – Financial Strength	+3
CA – Competitiveness	-2
ES – Environmental Stability	-4
IS – Industry attractiveness	+4

Source: built by the author

Building a SPACE profile according to the given coordinates places LLC “DON-TERMINAL” in the competitive strategy zone. This is a combination of sufficient financial capacity and attractiveness of the industry with simultaneous pressure of external instability and a relatively weaker market position of the brand. For such a profile, “selective offensive” actions are appropriate: investments in digital infrastructure (CRM, sales analytics, omnichannel B2B channels), strengthening marketing communication and systematic work with costs and risks of supply chains. This is consistent with the operational and commercial transformation measures proposed in section 3.

In terms of direct market influence, the key is sustained demand from corporate clients, which maintains sales stability. At the same time, high competition (including from "gray" imports and network operators with

diversified channels) increases the requirements for price flexibility, service and loyalty programs. Import dependence creates currency and logistics risks that require hedging exchange rate fluctuations, diversification of suppliers and revision of contractual terms (indexation and force majeure clauses).

The indirect environment increases both challenges and opportunities. Economic volatility and inflationary pressures are driving adaptive pricing and shorter inventory cycles. Social trends in favor of “green” products are opening up a niche for environmentally friendly lubricants and service solutions with a lower environmental footprint. Technological innovations (automated logistics planning, electronic document management, customer value analytics) provide productivity reserves, but require phased CAPEX and change management. Regulatory fluctuations and tax innovations are increasing the importance of regulatory monitoring and compliance.

Aligning SPACE findings with the external environment profile leads to a practical configuration of actions: digitalization of commercial processes and customer analytics; expansion of presence in B2B channels and marketplaces; multi-channel supply policy and logistics insurance; development of the product portfolio towards environmental solutions; introduction of price and currency triggers in contracts. Collectively, this reduces sensitivity to macro and regulatory shocks and strengthens the ability to grow competitively without excessive risk.

According to estimates for 2023, the capacity of the Ukrainian lubricants market was about UAH 22.97 billion with the following demand structure: B2C – 41%, B2B – 49%, B2G – 10% (\approx UAH 2.30 billion). The dominance of the corporate segment determines the requirements for service quality, after-sales support and stability of supplies; the share of B2G has increased primarily due to the needs of the defense sector, which increases the importance of approvals, certification and transparency of tender procedures. The retail segment forms price sensitivity and a demand for brand recognition, but has lower contract stability compared to B2B/B2G.

The market environment combines manufacturers (in particular, LLC "GPL", LLC "SP UKOIL", LLC "KSM", LLC "Euro Oil Production", etc.) and a network of distributors with developed logistics and a portfolio of international brands. For LLC "DON-TERMINAL", the key barriers to entry/strengthening positions are the costs of complying with OEM specifications, ensuring continuity of supply in conditions of currency and logistics fluctuations, as well as countering "gray" imports, which put pressure on prices and margins.

To compare the market positions of LLC DON-TERMINAL with its closest competitors, it is advisable to apply comparative analysis based on unified groups of indicators that directly reflect the ability to create and maintain customer value in each of the three segments:

- economic parameters: price competitiveness index (by key SKUs), revenue and gross margin dynamics, payment deferral terms;
- commercial and logistical parameters: portfolio depth (number of tolerances/viscosities/OEM specifications), geographical coverage, delivery SLA, inventory level and reorder frequency;
- marketing and customer parameters: brand recognition and trust, set of services (technical consultations, lubricant analysis, warranty programs), development of digital channels (CRM, e-commerce/B2B portals, marketplaces);
- compliance and sustainability: availability of certifications, environmental positions (biodegradable/low-ash products), transparency of participation in public procurement.

In Table 2.8, these criteria will be operationalized as comparative indicators (normalized by scale) for the selection of relevant strategic conclusions regarding the niche of LLC DON-TERMINAL in B2B/B2G and the possibilities of selectively strengthening its presence in B2C.

Table 2.8

**Comparative characteristics of the main competitors of Don-Terminal LLC
in the lubricants market in 2023**

Company	Average price of motor oils, UAH/l	Sales volume, thousand UAH	Market volume, thousand UAH	Market share, %	Competitive advantages
LLC "Don-Terminal"	303 [36]	347 269 [63]	22 998 007	1,51 %	Official distributor of TotalEnergies (France) and ORLEN Oil (Poland) [48]
LLC "Invent Group"	409,5 [37]	1 092 557 [64]	22 945 966	4,76 %	Own online store, large range of Shell brand products [45]
LLC "GPL"	91,8 [34]	650 502 [61]	22 990 495	2,83 %	Own production, capacity up to 30 thousand tons/year [18]
LLC "SP YUKOIL"	186 [32]	1 804 401 [60]	22 976 173	7,85 %	Own laboratory, technical support, production [47]
LLC "KSM"	187,2 [19]	550 278 [59]	22 928 250	2,40 %	Own TMs (PROTEC, TEMOL), full production cycle [46]
Euro Oil Production LLC	109 [33]	548 227 [57]	22 947 156	2,39 %	Scientific and technical center, logistics, laboratories [51]
LLC "Ecotechnics Dnipro"	160 [31]	73 663 [58]	23 019 688	0,32 %	Official representative of a number of brands (Bechem, Sunoco, MOL, etc.) [50]

Source: constructed by the author based on financial statements

The data in Table 2.8 show that Don-Terminal LLC maintains a stable, but still niche position: the estimated share is about 1.52% versus 7.85% in SP UKOIL LLC, 4.76% in Invent Group LLC, and 2.83% in GPL LLC. The advantages of the leaders are explained by different models of competitiveness: SP UKOIL relies on its own production and testing laboratory (quality, specification control, service), Invent Group – on Shell’s premium portfolio and developed digital sales channels (higher average price \approx 409.5 UAH/l as a result of brand positioning), GPL – on a vertically integrated operating base with the lowest average price (\approx 91.8 UAH/l) and clear work in price-sensitive segments.

Don Terminal's current market position is supported by partnerships with TotalEnergies and ORLEN Oil, a wide range of products and adequate logistics, but the potential for scale is constrained by a weaker digital presence, insufficient awareness among end users and limited automation of customer interaction. To confirm the hypothesis of unfulfilled demand, it is advisable to monitor three groups of indicators: (1) the index of relative market share to the leader (dynamics >1.0 will indicate convergence); (2) the margin interval in key SKUs against the average market level (to combine price attractiveness with profitability); (3) indicators of attracting and retaining B2B customers through digital channels (lead conversion, share of repeat orders, frequency of reorders).

Taking into account the industry demand structure and competitor profile, three vectors of strengthening seem appropriate: selective expansion in B2B niches with high service requirements and OEM tolerances; launch of a fully functional CRM/e-commerce infrastructure to reduce the deal cycle and increase LTV; portfolio policy "premium + value" for different price elasticity segments. Such a configuration allows to increase the share without critical pressure on the margin and synchronizes the commercial model with the identified market barriers.

The identified key strategic problem of Don-Terminal LLC is the logistics and digital inertia, which is dissonant with the positive dynamics of financial results. The company makes limited investments in the development of multi-level logistics, digital customer relationship management tools and diversification of sales channels. Under martial law and the volatility of the macro environment, such inertia increases sensitivity to supply disruptions and makes it difficult to scale operations without losing margins.

The logistics circuit forms a zone of increased risk: import dependence on lubricants, exchange rate fluctuations, possible disruptions of transit routes and irregular deliveries directly affect the service level (order fulfillment times, optimal stocks, turnover). The existing transport fleet and warehouse

infrastructure do not demonstrate systematic renewal (according to SWOT data), which limits the variability of operational solutions - from cross-docking to the implementation of automated storage systems.

The digital component is characterized by the lack of a CRM core, integrated sales funnel analytics, LTV management tools, and automated customer support. This complicates personalization of communications, demand forecasting, handling returns and claims, and hinders the development of e-commerce in B2B/B2C segments. Against the backdrop of competitors with developed IT platforms and significant marketing budgets, such a lag is transformed into a sustainable competitive asymmetry.

A separate emphasis is needed on the imbalance between tactical operational efficiency and long-term investment in non-current assets (warehouses, transport, WMS/TMS, quality and traceability systems). Without this investment "support", it is difficult to ensure target indicators of supply reliability, reduction of logistics leverage, reduction of unit costs and "green" modernization of processes (energy efficiency, waste disposal, ecological lubricants).

In general, the strategic gap manifests itself in three areas:

- infrastructure – insufficient depth of the logistics network and technical base of warehouses/transport;
- digital – lack of an integrated stack (CRM+ERP+WMS/TMS+e-commerce modules) and data for customer value management;
- market – limited presence in digital channels and weaker brand recognition compared to national players.

Further strategic improvement should be built around a threefold goal: (1) strengthening logistical resilience (diversification of supplies, regional hubs, contract logistics with SLA), (2) digital transformation of commercial and operational processes (CRM as a demand and service management center, integration with ERP/WMS/TMS, launch of a B2B portal), (3) focus on

sustainability and inclusiveness (environmental lubricant portfolio, energy-efficient warehouses, transparent supply chain reporting, availability of service for SME customers in the regions). Such a configuration reduces vulnerability to external shocks and creates the basis for managed market share growth without excessive pressure on costs.

The distribution policy for LLC "DON-TERMINAL" is strategic in nature: it not only ensures the physical movement of lubricants to consumers, but also serves as a tool for implementing growth goals, risk management and increasing business capitalization. In the middle segment of the lubricants market, competitiveness is formed at the intersection of service quality, speed and reliability of deliveries, transparent terms of commercial interaction and technological support for customers (B2B/B2G; partly B2C through partner channels).

For an enterprise, distribution performs the following functions: (1) managing product flows and inventories (ABC/XYZ classification, reorder point and safety stock policies), (2) optimizing logistics costs (routing, shipment consolidation, cross-docking), (3) maintaining payment discipline and credit policy (limits, terms, counterparty scoring), (4) ensuring service stability through standardized SLAs with customers and suppliers. Integration of distribution policy with information systems (WMS/TMS, integration with ERP, subsequent connection of CRM and B2B portal) increases demand predictability, shortens the turnover cycle and improves margin management.

The impact on financial and economic results is manifested through indicators of inventory turnover, operating cycle length, logistics cost structure and the level of overdue receivables. A properly configured channel network (direct B2B contracts; regional dealers; service stations/agricultural partners; pilot e-commerce interfaces for small wholesale orders) allows you to flexibly respond

to seasonality and regional shifts in demand, maintaining target service parameters without excessive "freezing" of working capital.

In the strategic plane, the distribution policy acts as a connecting mechanism between the brand portfolio (TotalEnergies, ORLEN Oil), logistical reliability and market presence of the enterprise. Consistent strengthening of distribution through: diversification of supplies (alternative routes/hubs), contract logistics with KPI monitoring, service standards for key segments, as well as digitalization of interaction with customers - forms the basis for managed scaling, risk reduction and sustainable growth of business value.

A schematic logic of sales channels and interaction with key customer segments (direct B2B contracts, regional dealers, service partners, pilot e-commerce channels) is presented in Fig. 2.5, which summarizes the place of distribution policy in the operating cycle of LLC "DON-TERMINAL".

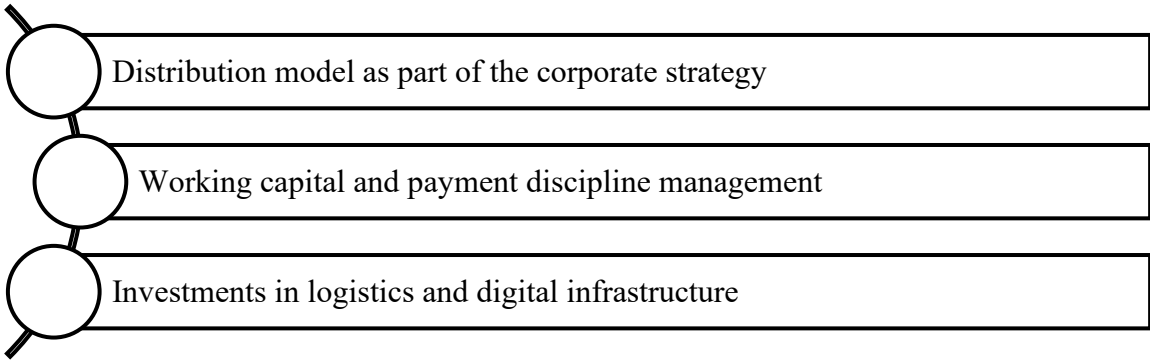


Fig. 2.5 The role of distribution policy in the long-term development strategy of LLC “DON-TERMINAL”

Source: built by the author

Let's review distribution as a strategic management tool, and not just as "transportation of goods". For LLC "DON-TERMINAL" it is a managed system of covering target segments (B2B/B2C/service), ensuring presence at points of sale and standardized interaction with partners, which directly affects income,

margin and liquidity. Positive changes in 2024 in terms of receivables can be logically associated with stricter settlement conditions and the selection of more reliable counterparties (reduction of DSO, transition to partial/full prepayment), that is, with "connected" management of goods and cash flows. The increase in the cost and renewal of fixed assets in the logistics chain (warehouse, transport, IT infrastructure) increases the service level (on-time/in-full), reduces the order fulfillment cycle and losses from defects/downtime, which strengthens the operational efficiency of sales.

To formalize the assessment, it is advisable to measure the distribution policy through a set of managed KPIs: customer base coverage, share of completed OTIF orders, average order cycle, inventory turnover, accuracy of demand forecast, level of returns/complaints, DSO, specific logistics costs per 1 liter of product.

The advantages of the current distribution model of LLC DON-TERMINAL are summarized in Table 2.9; the disadvantages and areas for improvement will be presented below for a balanced assessment.

Table 2.9

Analysis of the advantages of the distribution policy of LLC "DON-TERMINAL" in the context of strategic management

№	Advantage	Significance for strategic management
1	2	3
1	Partnership contracts with TotalEnergies and ORLEN Oil	Increase market confidence, guarantee stable quality and rhythm of supplies; reduce the risks of disruptions and reputational losses.
2	Diversified sales channels (B2B, dealers/service centers, retail)	Expand segment coverage, reduce dependence on a single channel, and increase resilience during periods of demand fluctuations.
3	Manageability of goods and cash flows (strict payment terms, selection of reliable counterparties)	Reduces DSO and accounts receivable, improves liquidity and reduces credit burden.

Continuation of Table 2.9

1	2	3
4	Developed logistics infrastructure (warehouse/transport, OTIF orientation)	Increases service levels, reduces order fulfillment cycles and losses from defects/downtime; maintains revenue stability.
5	Flexible pricing policy and loyalty programs	Help retain key customers and increase their share of wallet.
6	Basic sales and inventory analytics with potential for CRM/WMS implementation	Improves forecast accuracy, inventory turnover, and assortment management; lays the foundation for digital transformation.
7	Service consultations on lubricant selection and technical support	They create added value, increase B2B customer loyalty, and create barriers to entry for competitors.

Source: built by the author

Distribution policy as an element of strategic management in LLC "DON-TERMINAL" works not only for operational efficiency, but also for the long-term sustainability of the business model. Its key advantage is the transformation of sales into a managed growth mechanism: continuous movement of product flows ensures predictable cash flow, reduction of inventory balances and rational use of working capital. Stable supply channels and standardized payment terms support the growth of equity and limit the need for loan financing, which makes the company less sensitive to fluctuations in interest rates and changes in conditions from counterparties.

The presence of a multi-channel sales model combined with constant monitoring of demand, customer behavior and partner performance increases the flexibility to respond to market shifts. This allows you to maintain positions in key B2B segments, gradually expand the geography of presence and increase the share in the customer shopping basket. Investments in logistics infrastructure (warehouse capacity, transport, IT solutions for inventory and order management) increase the reliability of deliveries, shorten the order fulfillment cycle and improve service metrics, which directly affects customer loyalty and turnover rate.

At the same time, the distribution model also has vulnerabilities that require management attention – from dependence on import chains to digital limitations in working with customer data. A summary of key weaknesses and risk areas is provided in Table 2.10.

Table 2.10

Analysis of the shortcomings of the distribution policy of LLC "DON-TERMINAL" in the context of strategic management

№	Drawback	Value
1	Dependence on imported suppliers	Currency fluctuations and logistics disruptions during wartime risks complicate planning prices and inventory levels, and increase operational risks.
2	Insufficient digitalization of sales channels	The lack of a full-fledged CRM and a weak e-commerce/marketplace presence reduce the manageability of the sales funnel and the speed of attracting new B2B customers.
3	Limited demand and inventory analytics	Irregular ABC/XYZ segmentation and weak data integration lead to excess or shortage balances and higher inventory costs.
4	High load on logistics infrastructure	The need for investments in warehouses, transport and WMS/TMS; without modernization, order fulfillment times and logistics costs increase.
5	Dependence on external intermediaries	Delegating part of sales to dealers/distributors reduces control over service quality and price discipline, and weakens brand control.
6	Limited regional offline presence	Uneven regional coverage is holding back market share growth in the agribusiness, construction, and service company segments.
7	Price pressure and competition with "gray" imports	Unofficial supplies create dumping and worsen the perception of the price offer, requiring enhanced service and differentiation.
8	Regulatory and environmental requirements for fuels and lubricants	Strengthening quality control and labeling increases compliance costs and the risk of fines for supply chain errors.

Source: built by the author

Despite its clear advantages, distribution policy as a component of strategic management has a number of limitations that can reduce the effectiveness of the company's development. First, modern distribution is capital-intensive: the development and modernization of logistics infrastructure (warehouses, transport, WMS/TMS, cold/warm storage areas, fuel quality control equipment) require significant investments, time and qualified personnel. In the absence of a quick return, this creates pressure on liquidity and working capital, limiting other investment areas.

Secondly, dependence on external intermediaries in individual sales channels reduces service manageability: control over pricing discipline, delivery speed, communication standards and after-sales support is not always complete. For the lubricants market, this directly correlates with trust in partner brands and the risk of reputational damage in case of violations.

Third, integrating distribution with manufacturing, operations, and finance and marketing processes requires a consistent S&OP cycle, end-to-end demand and inventory analytics (ABC/XYZ), and CRM support for customer service. The absence or fragmentation of such practices complicates planning and increases inventory maintenance costs.

A separate risk is “distribution inertia”: established routes, contracts, and intermediary roles make channel reconfiguration slow and costly. This reduces flexibility to enter new regions/segments, slows down the transition to digital channels, and makes it difficult to adapt to changes in demand.

These weaknesses can manifest themselves both internally (financing, processes, data) and in interaction with the external market environment. A summary of the manifestations and consequences is given in Fig. 2.6.

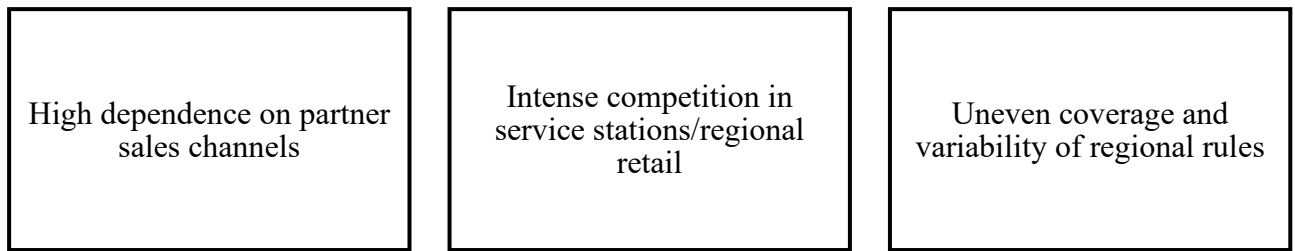


Fig. 2.6 Weaknesses of the distribution policy of LLC "Don-Terminal" as an element of strategic management

Source: built by the author

Wide market coverage through partner channels provides scale and quick access to customers in the industrial, agricultural and service sectors, but at the same time reduces the manageability of service and pricing at the “final link”. In the B2B segment, this is manifested in the uneven quality of consultations, delivery times, compliance with lubricant storage standards and fulfillment of warranty conditions. An additional challenge is the regional asymmetry of demand: without adapting distribution rules to the specifics of the regions, surpluses arise in some warehouses and deficits in others, which increases the costs of logistics and inventory maintenance.

It is advisable to reduce these risks by switching to a hybrid sales model (direct sales to key accounts + a network of partners with clear SLAs), digitalization of interaction (CRM + electronic client account, EDI, order fulfillment tracking), demand analytics (ABC/XYZ, demand sensing, dynamic safety stocks) and supply chain transparency (WMS/TMS, storage conditions control, regular partner audits). With growth as a priority, the network and channel portfolio are expanded; with stabilization as a priority, attention is focused on turnover efficiency and service metrics; with adaptation as a priority, the channel mix and contractual mechanics are flexibly restructured (SLA, bonus grids, VMI/CPFR). In such a configuration, the distribution policy becomes a practical lever for implementing strategic goals and strengthens the competitiveness of DON-TERMINAL in the lubricants market.

2.4. Development of strategic priorities and proposals for improvement

A comprehensive strategic analysis of Don-Terminal LLC (SWOT, PEST, assessment of the competitive field and internal potentials) showed: the company has a stable operating base (contracts with international manufacturers, well-established logistics, B2B expertise), but underuses the capabilities of direct sales channels and digital tools for interacting with customers. The combination of macro and micro factors forms a request for correction of the sales model: partial elimination of dependence on intermediaries, strengthening of the service component and acceleration of the "order-delivery-after-sales support" cycle.

Given the structure of demand and barriers to entry into related segments, the market development strategy according to I. Ansoff is appropriate: expanding presence without radical changes to the product portfolio. Priority niches are agricultural enterprises (seasonal peak needs for lubricants for the fleet of equipment) and small/medium service stations (regular, forecasted demand), supplemented by digital procurement channels in B2B format.

Further development of strategic priorities focuses on three areas:

- sales and channels – formation of a hybrid model (key accounts directly + certified partner network with clear SLAs);
- digital infrastructure – CRM, client account, integration with WMS/TMS and electronic document management to reduce the operational cycle;
- market expansion – targeted programs for the agricultural sector and service stations, regional adaptation of prices/services and use of B2B marketplaces.

This focus allows you to turn existing strengths into long-term competitive advantages, increase margins through direct interaction with customers, and reduce sensitivity to fluctuations in intermediary channels.

Taking into account the conclusions of the SWOT analysis, it is advisable to clarify the strategic profile of Don-Terminal LLC in the logic of the I. Ansoff matrix. The current focus on the penetration strategy (primarily in the corporate segment and through participation in tenders) has provided a stable order base and predictability of sales, but does not create sufficient potential for scaling in the face of increased competition and changes in consumer behavior. A rational step is to transition to a market development strategy: expanding sales through new target groups without a radical change in the product portfolio.

The priority segments for development are: agricultural enterprises (seasonal peak but regular demand; fleet of equipment with clear lubrication regulations), regional logistics companies (high load on the fleet and the need for service support) and independent small and medium-scale service stations (stable turnover of consumables, request for technical consultations). They are united by: the presence of stable demand, technical compatibility with the TotalEnergies/ORLEN Oil product lines, as well as the possibility of operational service within the existing logistics.

Analysis of the range confirms the company's readiness for such expansion: the portfolio includes engine, transmission, hydraulic oils and special fluids that meet the requirements of agricultural machinery, freight transport and service station equipment. This eliminates the need for product modifications and shifts the focus to improving the sales infrastructure: building hybrid channels (direct sales to key accounts + certified partner network), strengthening the service component (SLA, technical support, loyalty programs), as well as developing digital communications and B2B tools (CRM, customer account, electronic document management). The combination of these steps forms the basis for accelerated entry into selected niches and increasing margins due to shorter sales channels.

Analysis of the current product sales model revealed a number of limitations that hinder the development of Don-Terminal LLC. The dominance of

wholesale channels and tender deliveries ensures predictability of sales, but narrows the possibilities to quickly cover the retail and service segment and promptly respond to changes in demand. This is especially evident in working with small service stations: purchases through intermediaries reduce margins, weaken control over the final use of products and complicate the formation of loyalty. At the same time, the available logistics resource makes it possible to build a “last mile” supply to the end customer at the regional level - the potential has so far been partially used.

Given these findings, it is advisable to move from a predominantly intermediary model to a hybrid channel structure with increased direct presence in target niches. The expected effects are increased margins, better service and speed of delivery, personalization of commercial offers, and demand predictability.

The strategic priority for the near future is restructuring the sales system towards direct sales to the end consumer. The practical framework of changes includes:

- deployment of direct supply channels for agricultural enterprises, regional logistics operators and independent service stations (clear SLAs for shipment, "dairy" routes, regional cross-dock warehouses);
- implementation of digital customer interaction tools: CRM with end-to-end funnel analytics, online office for orders and balance tracking, electronic document management;
- launching partner programs with added value: bonuses for turnover and assortment, fast delivery, technical support and after-sales service, training modules for service station technicians, joint promotional activities.

The formulated approach creates the basis for targeted initiatives, in particular the "Partner STO" program as a tool for systematic work with independent services, as well as for pilot projects in the agricultural and logistics

segments. Such a trajectory allows strengthening market positions, increasing demand management, and ensuring sustainable revenue growth through shorter and more transparent sales channels.

The generalization of the results of the strategic analysis gives grounds to determine for Don-Terminal LLC the priority of diversifying sales channels with an emphasis on direct interaction with end B2B consumers, primarily independent service stations. In conditions of high competition and rapid digitalization of the sales infrastructure, such a shift in focus is designed to increase margins, strengthen the manageability of sales channels, and build sustainable partnerships.

This logic is reflected in the targeted strategic development program "Partner STO" - a comprehensive tool that combines digital integration, logistical efficiency and value-added service. The program forms a managed sales channel with transparent rules of interaction and measurable results (level of service, frequency of repeat orders, cost of customer acquisition, share of sales through the direct channel).

Structurally, the "Partner STO" covers at least four blocks: (1) pricing architecture and incentives, (2) digital interaction and analytics, (3) last-mile logistics and SLA, (4) service and customer competency development. Instead of the traditional discount model for intermediaries, a transition to a "fair wholesale price" policy for the end B2B customer is proposed, supplemented by a flexible system of non-financial incentives. Key parameters:

- Basic commercial advantage for service stations: price 5–10% lower than average intermediary offers in the relevant region (with fixing of a reference basket of items and periodic review).
- Bonus model instead of one-time discounts: cumulative cashback for subsequent purchases, free delivery upon reaching the monthly turnover threshold, gift sets of consumables for compliance with loyalty conditions (share of purchases, timely payment, participation in training).

- Transparent price revision rules: indexation to exchange rate/manufacturers prices with a public conversion algorithm to maintain trust and predictability for service stations.
- Margin protection: limits on individual exceptions and agreed price "corridors" for tenders or large lots to avoid price cannibalization within the network.

This price offer design simultaneously increases the attractiveness of the direct channel for service stations, reduces transaction costs for negotiating discounts, and creates the prerequisites for long-term customer loyalty thanks to clear, reproducible rules of cooperation.

Within the framework of the “Service Station Partner” program, the CRM system acts as the operational core of the direct sales channel and serves as the only source of reliable data on customers, orders and shipments. It accumulates a complete history of interactions – from invoices and deliveries to service requests and warranty cases – which allows you to automate repeat purchases through quick order templates and reminders about critical balances, as well as generate management analytics based on the average check, purchase frequency, margin, repeat purchase indicators and signs of churn risk. System integrations with accounting and ERP ensure synchronization of documents and balances, and open interfaces allow you to connect the site and bot channels without violating data access and protection policies.

The rules of cooperation with partners are fixed in the form of key performance indicators, which are monitored in real time and directly affect commercial conditions. For each service station, corridors are set for monthly turnover, regularity of purchases, payment discipline, compliance with logistics time slots and quality of processes (share of returns, complaints, satisfaction level). Achieving higher levels of performance automatically activates improved conditions - increased bonus, lower thresholds for free delivery, personal support. Visualization in dashboards allows management to assess the timeliness and

completeness of deliveries, margin by customer and product range, as well as the demand structure according to the ABC and XYZ principles.

The logistics contour of the program is built around the acceleration of the “last mile”. Operational advantage is achieved through micro-warehouses based on partner points with buffer balances of the most needed items and replenishment based on actual consumption signals. Regular routes are combined with hourly windows for regular customers, and own transport is supplemented with local courier services for small batches. All stages of delivery are tracked in CRM with electronic confirmation of receipt, which reduces transaction costs, reduces average order fulfillment time and increases the “on time and in full” delivery rate.

Digital interaction with partners is organized through personal accounts and easy interfaces in messengers. The client gets access to personalized price lists, payment and delivery history, technical documentation and a quick order service based on their own templates. Additional value is created by micro-learning modules on the selection of lubricants, maintenance regulations and environmental requirements, as well as webinars with the participation of manufacturers - this increases the competence of service stations and reduces the number of errors in specifications.

The implementation is carried out in stages: first, a pilot in several regions with a limited list of products and control of basic metrics (share of direct sales, timeliness and completeness of deliveries, channel margin, repeat purchases, average receivables collection period), then - scaling based on the results of proven scenarios. Support includes training of the sales team and warehouses, standards for partners, as well as continuity plans - backup routes, alternative suppliers of critical items and a previously communicated algorithm for currency indexation of the price.

Expected results are tracked in a single analytical panel: an increase in the share of direct sales in target regions, an increase in margins compared to the

wholesale channel, a reduction in average order fulfillment time, and improved repeat purchase rates. This configuration turns the Service Station Partner into a managed sales infrastructure where CRM provides transparency and predictability, KPIs provide interaction discipline, microfulfillment provides speed and reliability, and digital channels provide scalability without additional administrative burden.

The proposed set of tools forms a managed model of work with sales channels. The “Service Station Partner” program ensures predictability of the client base, strengthens control over market presence and maintains target margins without resorting to price wars. The initiative performs a dual role: it promptly solves service and logistics problems and at the same time launches strategic transformation through digitalization of interaction, automation of accounting, improvement of communication quality and data-based decision-making.

For the managed implementation of the program, a system of key performance indicators (KPI) is introduced, integrated into CRM. It provides automatic accounting of partner activity, formation of individual profiles (volumes and regularity of purchases, speed of operations, loyalty indicators) and creates a basis for prompt adjustment of commercial conditions. KPIs have not only a monitoring, but also a stimulating function: achieving target benchmarks opens access to bonuses and service preferences. As a result, competition is transferred from the price plane to the value plane - a combination of product, service and transparent rules of cooperation.

The list of KPIs of the "Partner STO" program, their target values, corresponding incentives and strategic purpose are presented in Table 2.11.

Table 2.11

Key performance indicators (KPIs) and bonuses of the “Service Center Partner” program

KPI	Description	Target value	Performance bonus	Strategic importance
Number of active service stations	Partners who placed ≥ 1 order during the month	$\geq 80\%$ of registered	Free shipping	Reflects the level of reach and viability of the channel
Average check per service station	Average volume of one order	$\geq 4,000$ UAH	2% bonus on your next purchase	Helps optimize logistics costs
Frequency of repeat orders	Average number of orders from one partner per month	≥ 2 orders/month	+1 unit of product as a gift	Forms regularity of demand
Order processing time	Interval from the moment of application to delivery	≤ 24 hours	Priority service for next order	Supports service level as a competitive advantage
Sales plan execution	Achieving the set procurement volume	$\geq 90\%$	Additional 3% discount	Stimulates the growth of trade turnover
Satisfaction Index (NPS)	Average score from partners on a scale of 1–10	$\geq 8/10$	Participation in incentive prize draws	Reflects service quality and reputation

Source: built by the author

A key indicator of channel viability is the share of active partners (partners who have placed ≥ 1 order per month). A high value of the indicator indicates a sufficient level of coverage and regular interaction with the service station network; free delivery is used as an incentive, which reduces transaction costs for the partner and increases the frequency of orders.

The average check of one service station and the frequency of repeat orders reflect the depth of cooperation and the predictability of demand. An increase in

the average check is directly related to the optimization of logistics costs and the growth of margins, while the regularity of purchases forms a uniform production and logistics load. The incentive mechanism is simple and transparent: a bonus for the next purchase and/or a product as a gift for achieving threshold values.

Order processing time (from request to delivery) serves as an operational SLA and at the same time an indicator of the competitive advantage of the service. Maintaining an interval of ≤ 24 hours within the region provides the "last mile" effect and directly affects NPS. Priority service slots are provided for partners who meet the SLA.

The execution of the sales plan reflects the discipline of joint planning and the accuracy of the forecast on the partner's side; achieving target volumes is rewarded with an additional discount. The satisfaction index (NPS) captures the perception of the service and the reputational component; high values confirm the correctness of the value proposition and provide grounds for involving the partner in joint promotional campaigns and motivational activities.

Thus, the KPI system performs two functions: monitoring - provides transparent control over the state of the direct sales channel, and stimulating - translates the achievement of target metrics into specific benefits for the partner. The combination of CRM data, service standards and bonus logic forms a manageable, scalable cooperation model that supports marginality and strengthens the strategic positions of Don-Terminal LLC in the service station segment.

LLC "DON-TERMINAL" is a prominent participant in the Ukrainian market of lubricants and technical fluids. In the context of increased competition, fluctuations in the import component and rapid digitalization of procurement, the key task of the company is to update the distribution policy as an integral part of the corporate growth strategy. This is not only about supply logistics, but also about a managed sales system that ensures targeted coverage of B2B segments (agriculture, logistics, industry, service stations), an appropriate level of service,

inventory turnover, control of receivables and the estimated cost of customer service.

In this context, the current distribution model of the enterprise is considered as a tool for implementing strategic guidelines: expanding the geography of direct deliveries, reducing dependence on intermediaries, increasing the frequency of repeat purchases and strengthening positions in direct sales channels, tender purchases and partner programs for service stations. The structure of sales channels, types of client segments, roles of intermediaries and the logic of interaction with key partners are presented in Table. 2.12.

Table 2.12

Features of the distribution model of LLC "DON-TERMINAL"

Distribution channel	Characteristic	Advantages	Disadvantages / risks
1	2	3	4
1. Direct B2B deliveries (agriculture, logistics, industry, service stations)	Contracts with end corporate customers; regular delivery schedules; service support for lubricant selection and technical advice	Higher margins, control of receivables and service; forecasted turnover; building loyalty	Requirement for own logistics and inventory; risk of concentration on large customers; need for CRM and service SLAs
2. Regional dealers/distributors	Wholesale sales to partners in the regions; coverage of small and remote consumers	Rapid geographic scaling; reducing own costs for the "last mile"	Loss of part of the margin; difficulty in controlling pricing policy and service; information gaps
3. Tenders and B2G segment	Participation in procurement by municipal/state structures and state-owned enterprises	Large contract volumes; increased reputational capital	Long payment cycles; regulatory requirements; pricing pressure and risk of appeals

Continuation of Table 2.12

1	2	3	4
4. Direct online channel (website, client account)	Orders via CRM/online account; personalized price lists; purchase history	Reduced transaction costs; speed of order processing; demand analytics	Need for IT investment and support; cyber and operational risks; need for integration with accounting and warehouse
5. Marketplaces / third-party platforms (select SKU)	Presentation of individual items for small B2B/B2C buyers in the regions	Additional touch points; demand test; increase supplier brand awareness	Commissions and logistical constraints; price competition; weak control over customer experience
6. Affiliate programs for service stations (“Service Station Partner”)	Fixed terms, KPI bonuses, micro-stocks with partners, service support	Regular repeat purchases; local availability; growing share of direct sales	The need for service standardization; costs of launching and monitoring KPIs; dependence on partner discipline

Source: built by the author

Today, LLC "DON-TERMINAL" uses a hybrid sales model that combines direct B2B deliveries to key customers (agricultural enterprises, logistics companies, service stations), work with regional dealers, participation in tender purchases and development of digital channels (online order office, integration with CRM). This configuration provides a wide coverage of demand in the domestic market and creates a basis for expansion into related segments. Generalization of the results of the strategic analysis allows us to clearly outline the strengths of the existing model (control of service in direct channels, scalability through partners), its limitations (pricing pressure in tenders, loss of margins in indirect sales, data gaps without full digital integration) and areas for

development (strengthening direct deliveries, service standards and KPIs for partners, expansion of the online channel). Given these conclusions, it is advisable to formulate and compare strategic distribution alternatives and justify the choice of the optimal model, consistent with the company's resources and competitive market dynamics (Table 2.13).

Table 2.13

Strategic distribution alternatives of LLC "DON-TERMINAL"

Alternative	Advantages	Disadvantages / limitations
Development of our own logistics and distribution infrastructure (micro-warehouses in the regions, planned delivery routes, service points for service stations)	Full control of service and inventory. Less margin loss, shorter order fulfillment cycle. Improved service quality for B2B clients (agricultural sector, service stations, logistics companies).	Significant capital investment and maintenance costs. Need for skilled personnel and IT planning systems. Risk of underutilization of capacity in the off-season.
Launch of a digital sales channel and client account (CRM integration, online ordering, demand analytics)	Access to new customers without intermediaries. Transparent analytics, personalized offers, faster cash flow. Support for loyalty programs and KPIs for partners.	The need for a marketing budget and digital competencies. Integration costs and cyber risks. The need for ongoing content and service support.
Deepening cooperation with regional dealers and tender platforms (service standards, contracts with KPIs)	Rapid coverage scaling without large capital investments. Stable volumes through long-term contracts. Use of existing partner networks.	Loss of some margin. Limited control over pricing and service. Risk of data disruption without full digital integration.

Source: built by the author

It is advisable to implement the launch of a digital sales channel in the format of an official B2B portal with client accounts (order placement, viewing purchase history, current balances, invoices and invoices), integrated with CRM and EDI/API for corporate clients. For retail positions, it is advisable to connect marketplaces (Rozetka, Prom.ua) as a channel of initial attraction in regions with

insufficient offline coverage with the subsequent migration of regular customers to your own channel.

The target distribution model is based on the segmentation of the company's key consumer groups: independent and network service stations, agricultural enterprises, logistics and transport companies, as well as industrial consumers (MRO). Specific service packages are defined for each segment: delivery frequency and micro-warehouses for service stations; seasonal schedules and large-volume containers for the agricultural sector; contract prices, fixed delivery "windows" and EDI document flow for logistics; technical support, certificates of conformity and consumption analytics for industry.

The implementation of a segmented distribution strategy involves adjusting the set of tools (channel type, pricing rules, service levels, logistics solutions, KPIs in CRM) to the needs of each customer group. This approach provides the necessary market coverage, increases margin manageability, and shortens the order fulfillment cycle. The generalized “segment - tools” matrix is presented in Table 2.14.

Table 2.14

**Segmentation of the distribution strategy of LLC "DON-
TERMINAL"**

Segment	Customer characteristics	Distribution strategy
1	2	3
1. Independent and network service stations	Stable repeat purchases; need for fast delivery of small batches; requirement for technical support and oil selection; sensitivity to service	Direct sales through account managers; client accounts/orders from templates in CRM; micro-warehouses at partner service stations; regular delivery schedules and hourly “windows”; “Service Station Partner” loyalty program (cashback/free delivery at doorsteps).
2. Agricultural enterprises	Seasonal demand peaks; large volumes; need for 20–205 l containers and IBCs; storage and sampling service requirements	Contract direct deliveries; pre-season volume booking; mobile service visits; deferrals/limits within credit policy; technical consultations and laboratory reports.

Continuation of Table 2.14

1	2	3
3. Logistics and transport companies	Centralized purchasing; EDI/document flow requirements; fixed acceptance windows; emphasis on TCO	Framework agreements with SLA fixation; EDI/API integration; preparation of individual lubrication charts; consulting on fuel economy; cross-docking and night deliveries.
4. Industrial consumers (MRO)	Regulatory lubricants; audits/certificates; long approval cycles; supply continuity requirements	Direct contracts; technical support and selection of equivalents; consignment stocks at the client's site; 24/7 service for critical items; consumption reporting.
5. Small B2B/retail via marketplaces	Dispersed demand; geographically dispersed customers; high sensitivity to price and speed	Marketplaces (Rozetka, Prom.ua) as an acquisition channel; own B2B portal with prices/balances; prepayment and postpayment; courier services and VAT; migration of regular customers from marketplaces to your own channel.

Source: built by the author

LLC "DON-TERMINAL" already works with a wide range of corporate customers in the industrial, transport and agricultural sectors and has established direct contracts with lubricant manufacturers (TotalEnergies, ORLEN Oil). This confirms the company's ability to meet the requirements of B2B customers for quality, traceability of batches and adherence to delivery deadlines. For further growth, it is advisable to maintain a segmented approach to distribution, adapting the service format to the specifics of key customer groups: independent and network service stations, agricultural enterprises, logistics and transport companies, industrial MRO consumers, as well as small B2B through marketplaces and its own online office. Such differentiation strengthens the recognition of brands in the portfolio, increases partner loyalty and allows you to increase market share without excessive dependence on intermediaries.

The specifics of the product portfolio (engine, transmission and hydraulic oils, special-purpose lubricants, technical fluids - antifreezes, brake fluids, AdBlue, care products) determine the requirements for distribution: work with different container formats, labeling and accounting of batches/lots, compliance with FEFO/FIFO, temperature storage conditions, tightness and cleanliness of containers, availability of quality certificates and MSDS, safe transportation and minimization of the risk of contamination. Taking into account these features, a further description of sales channels and customer service modes is given in Table. 2.15.

Table 2.15

**Recommendations for improving the distribution of LLC "DON-
TERMINAL" through sales channels**

Sales channel	Sphere	Current approach	Recommendations for improvement
1	2	3	4
1. Agricultural enterprises (B2B)	Logistics	Delivery from a central warehouse, coordinated flights	Open regional micro-warehouses/cross-docks in seasonal clusters; route planning based on GPS analytics; pre-season deliveries for sowing/harvest schedules.
	Assortment and packaging	Standard items (engine, hydraulic, transmission oils), containers 20–205 l	Introduce seasonal packages (oil + filters/AdBlue), 1000 l IBC containers for large farms; clear equipment compatibility maps (John Deere, Case, Claas, etc.).
	Contracts	Framework agreements, post-payment	Prepayment/deposits for the season, fixing price formulas with currency reservations; service SLAs for delivery times.
	Service/Support	Manager's consultations	Oil audits, sampling and lab reports, mechanic training; waste oil recycling program.

Continuation of Table 2.15

1	2	3	4
2. Independent service stations and regional fleets	Logistics	Delivery on request, through a distributor	"Fast windows" of delivery 24–48 hours; milk-run routes; consignment warehouses for TOP partners.
	Assortment and SKU	Basic portfolio in 1–20 l canisters	Expand the low-SAPs/LL line, 4–5 l packaging; starter shelves “Maintenance for popular models”; mix sets for the first order.
	Sales tools/digital	Phone/messengers	Partner's office in CRM: quick order, delivery history, document flow, delivery tracking; API connection to service station accounting systems.
	Marketing and loyalty	Promotional discounts	Bonuses for meeting KPIs (order frequency, average check, payment discipline); co-branded materials, test canisters, “Service Station Partner” program.
3. Logistics companies and freight carriers	Logistics	Delivery from a central warehouse	Regular schedules for fleets; mobile delivery points at carrier bases; night deliveries.
	Assortment/service	Diesel, transmission, gearbox lubricants	Fuel economy packages: lubricants with increased fuel efficiency + AdBlue; analysis of selections and extension of maintenance intervals; 24/7 service line.
	Contracts and Finance	Price offers for the tender	SLA for position availability, multi-year volume agreements; option to lock in the rate for a month/quarter; discounts based on savings telemetry.

Continuation of Table 2.15

1	2	3	4
4. B2B online channel (e-commerce for partners)	Processes	Order through a manager	Launch of a B2B portal: pricing by partnership levels, instant invoices, shipment status, compatibility information; integration with marketplaces for long-tail SKUs.
	Support	Telephone consultations	Knowledge base, oil selection calculator, chat with a technical engineer; webinars and certification of craftsmen.
5. Government Procurement (B2G, if available)	Participation in bidding	One-time tenders	Form typical technical requirements, a portfolio of certificates; offer service options (training, disposal) as a non-financial advantage.

Source: built by the author

To increase the efficiency of lubricant distribution, it is advisable to apply a differentiated approach to each sales channel. In the agricultural segment, it is worth deepening cooperation through seasonal consumption analytics, joint planning of pre-sowing and off-season deliveries, as well as package solutions (oils + filters/AdBlue) with fixed service SLAs. For independent service stations, the key factors are fast delivery “windows” of 24–48 hours, micro-warehouses in demand nodes, personalized selection of oils in the CRM/partner’s office and bonuses tied to KPIs (order frequency, payment discipline). For logistics companies, regular schedules for fleets, night shipments, “fuel economy” packages with technical support (selection analysis, extension of maintenance intervals). The B2B online channel should provide a full cycle: quick order, shipment status, technical documentation, compatibility calculator and integration with customer accounting systems. In the B2G segment (if there is participation),

it is worth standardizing technical requirements and offering non-financial benefits - personnel training, waste oil recycling, service SLAs.

Focus on logistics flexibility, local assortment adaptation, digital interaction tools, and transparent loyalty programs increases turnover speed, margin control, and repeatability of purchases across all channels.

The optimal model for the company is a combined (hybrid) model that combines direct deliveries to key B2B customers, partner channels in the regions, and a digital B2B portal as a “single window” for orders and service (Fig. 2.7).

The proposed hybrid sales model allows you to expand market reach without losing channel control, reduces dependence on a single source of sales, increases margins through direct B2B deliveries, and meets current customer expectations for digital interaction and fast delivery.

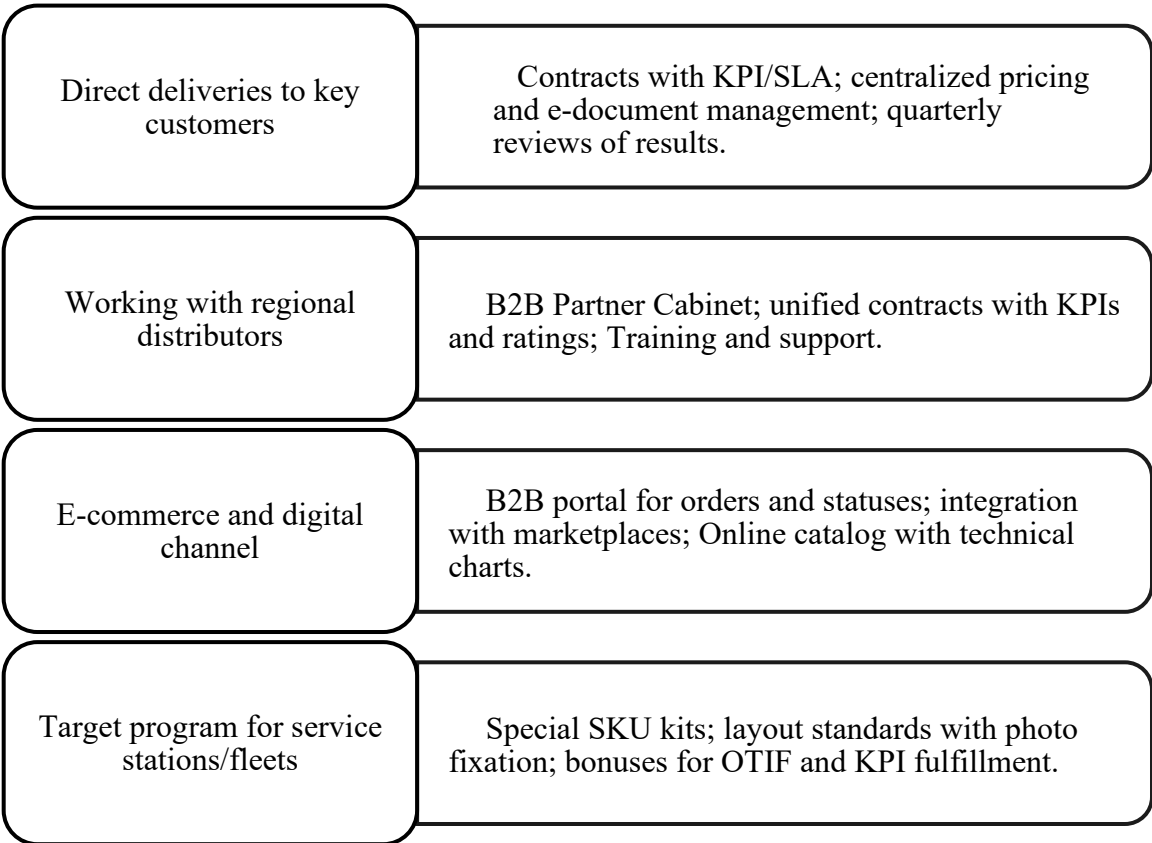


Fig. 2.7 Optimal model for LLC “DON-TERMINAL”
 Source: built by the author

The basis of the model remains direct deliveries to corporate clients – agricultural enterprises, logistics operators and independent service stations. This format provides a significant share of revenue and performs a strategic function of consolidating partner brands (TotalEnergies, ORLEN Oil) in key segments. While maintaining direct cooperation, it is necessary to maintain price discipline (regular benchmarking of competitors and transparent markup rules for different customer groups), adhere to logistics SLAs (planned schedules, minimum safety stocks at hub warehouses, packaging and labeling standards) and plan marketing support for service sales within a single trade marketing budget (training of service station technicians, technical consultations, demo programs).

An important component of the hybrid model is working with regional distributors to cover remote territories and smaller consumers. At the same time, existing approaches have typical limitations: heterogeneous brand representation, weak price control, uncoordinated promotional activities, irregular deliveries and limited demand analytics. To increase the efficiency of this channel, it is advisable to reorganize it: introduce a single standard of cooperation and contractual discipline with KPIs (order frequency, plan execution, DSO), dilute territorial responsibility and coverage requirements, unify categorical price lists and discount rules, plan promotions according to quarterly trade marketing calendars, connect digital tools (partner portal/CRM, EDI, personalized order templates, shipment tracking), optimize logistics through micro-warehouses and cross-docking with a target lead-time of 24–48 hours, conduct regular warehouse audits and staff training, and introduce distributor motivation based on KPI achievement (bonuses/coop budgets) and a rating system. The key steps of the reorganization are summarized in Fig. 2.8.

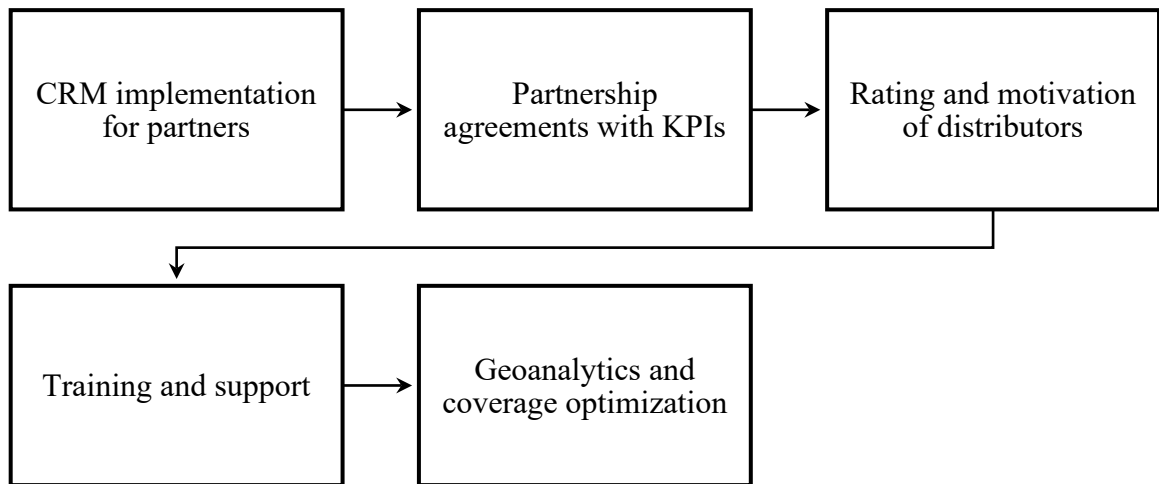


Fig. 2.8 Reorganization of work with regional distributors of Don-Terminal LLC

Source: built by the author

It is advisable to use the implementation of a corporate CRM platform as a "single window" for sales and service: centralized accounting of deals and contacts, control of balances in own and partner warehouses, forecasting demand based on shipment history and seasonality, automated document flow (e-invoices, invoices, acts), end-to-end KPI analytics (order frequency, average check, DSO, delivery SLA fulfillment) and dashboards for management. This will increase the transparency of interaction with sales channels, speed up management decisions and reduce operational coordination costs.

In parallel, it is worth switching to unified partnership agreements of a new model. Basic provisions: territorial responsibility and exclusivity rules; brand presentation standard (POS materials, technical customer support); price corridors and discount conditions; service SLAs (lead-time, minimum safety stocks, order fulfillment level); mandatory connection to CRM/EDI; quality audit and joint promotion planning. To strengthen discipline, it is advisable to introduce a rating of distributors based on transparent indicators (territory coverage, plan implementation, payment stability, service level, share of direct returns). Partners

with a high rating receive preferences: better deferral conditions, priority in new SKUs, additional co-op budgets.

Geoanalytics should become a tool for network development: identifying "white spots" in coverage, assessing the potential of agricultural and service stations clusters, optimizing the placement of micro-warehouses and routes with a target lead-time of 24–48 hours. Such planning will allow balancing the load on logistics and increasing profitability in the regions.

Expected effect of the reorganization: increase in regional sales, improvement in distribution quality (rhythm of deliveries, compliance with price rules), stronger control over partner brands, reduction in logistics and receivables losses, increase in operating margin.

It is advisable to present a comparative assessment of strategic sales alternatives according to key criteria in Table 2.16, which will ensure a well-founded choice of the optimal model for LLC "DON-TERMINAL".

Table 2.16

**Comparative assessment of strategic distribution alternatives
for LLC "DON-TERMINAL"**

Criteria	Own logistics (micro-warehouses, cross-docks)	E-commerce / B2B portal	Direct deliveries to service stations and agro ("Service Station Partner")
1	2	3	4
Initial costs	High	Medium	Medium
Return on investment	Slow–medium	Medium	Fast–medium
Market reach potential	High (regional expansion)	High (national online coverage)	Medium–high (ST/agro clusters)
Impact on brand/service	Moderate (back office function)	High (direct contact and data)	High in B2B (quality of service)
Scaling flexibility	Medium	High	Medium

Continuation of Table 2.16

1	2	3	4
Implementation of IT solutions	Moderate–High (WMS/TMS, EDI)	High (CRM, portal, payments)	Moderate (CRM, SLA monitoring)
Implementation complexity	High (infrastructure, personnel)	Medium (processes and integrations)	Average (service standards, routes)
Long-term competitive advantage	High (service and lead-time control)	High (demand data, loyalty)	High/Medium (stable relationships and margin)
Margin control	High	High	High
Risks	Capital intensity, operating costs	Dependence on IT and traffic	Receivables risk, need for service discipline

Source: built by the author

Taking into account the analysis conducted, the optimal configuration for LLC "DON-TERMINAL" is a hybrid configuration of sales channels that combines direct sales to key B2B customers (agricultural sector, logistics, independent service stations and tender customers), a managed network of regional distributors with digital integration (CRM/EDI, SLA standards, partner rating) and a digital sales channel - B2B portal/personal accounts with the possibility of "quick ordering", balance tracking and service support. Such architecture provides at the same time large-scale coverage and a high level of control, reduces dependence on any one channel and increases margins due to the reduction of the intermediary component.

The proposed model increases resistance to external fluctuations (exchange rate risks, logistical disruptions) through sales diversification, accelerates turnover thanks to micro-warehouses/cross-docks in the regions, and translates demand management into the data plane: regular analytics on order frequency, average check, delivery schedule execution, and loyalty indices allow for quick adjustments to commercial conditions and service. As a result, the company

obtains a balanced ratio of costs, control, and profitability, strengthens the loyalty of professional clients, and readiness for market trends – digitalization, direct communication with the buyer, and fast delivery.

2.5. Economic efficiency of implementing strategic measures

The proposed program "Partner STO" is considered as a tool for strategic transformation of the sales model of LLC "DON-TERMINAL", the effect of which should be measured not descriptively, but through a system of quantitative assessments. The further presentation focuses on determining the increase in economic value from the transition to direct interaction with small B2B clients, in particular independent STOs and service centers. The assessment is based on an incremental approach: additional income and expenses arising specifically as a result of the implementation of the program are compared, with the separation of the effects of margin, order structure and changes in working capital (DSO, DIO, cash conversion cycle). Indirect results are monitored in parallel - increased customer retention, reduced transaction costs due to the digitalization of processes, reduced price elasticity due to service differentiation.

The methodological basis of the analysis includes the construction of forecast cash flows for the "Partner STO" channel, taking into account seasonality of demand, currency fluctuations, logistics tariffs of the "last mile" and bonus policy parameters. Key financial indicators are used (NPV, IRR, payback period with and without discount, sales profitability and contribution to coverage per partner), commercial dynamics indicators (average check, frequency of repeat purchases, share of assortment in the basket) and unit economy metrics (LTV/CAC, customer activity coefficient, share of deliveries in time "windows"). To ensure the reliability of the conclusions, a scenario approach (baseline, cautious, accelerated) and sensitivity analysis to critical assumptions are used -

the speed of connecting new partners, gross margin, logistics cost, exchange rate risks, as well as the effects of cannibalization of existing channels.

The empirical basis is made up of typical service station procurement profiles, internal data on operating costs and logistics standards, as well as reference parameters of CRM/EDO work (automated order processing, repetition rate, invoice-payment-shipment cycle time). The initial assumptions and calculated parameters of the revenue and expense parts are summarized in the table of this subsection; it is based on which combinations of volumes, margins and costs the program scaling generates a sustainable increase in NPV and accelerates the turnover of funds in the channel. Capacity limitations and the “learning curve” are separately taken into account - the expected decrease in the specific costs of attracting and servicing a partner as operational experience is accumulated.

Table 2.17

Assessment of the effectiveness of the implementation of the “Service Station Partner” program

Indicator	Unit of measurement	Value	Comment
1	2	3	4
Average service station check	UAH/order	4 000	Typical lubricant order volume for one small service station; includes purchase of engine, transmission and hydraulic oils
Average number of orders per month from one service station	orders	3	Corresponds to a typical service station load: approximately 1 purchase per week
Number of active partner service stations	units	50	Initial reach of the target segment; minimum scalable base is taken into account
Expected monthly revenue	UAH	600 000	$4,000 \times 3 \times 50$ – total revenue from servicing the partner network consisting of 50 service stations
Gross profit (margin 25%)	UAH	150 000	Gross income before deducting costs for CRM, logistics, bonuses; 25% is the average margin level for lubricants
Program implementation costs	UAH/month	45 000	Including: CRM – 10,000; logistics – 25,000; bonuses – 10,000; all values are calculated based on an optimistic scenario

Continuation of Table 2.16

1	2	3	4
Net profit	UAH/ month	105 000	The difference between gross profit and total program costs
Initial investment in startup	UAH	150 000	One-time costs for setting up CRM, logistics processes, and staff training
Investment payback period	months	1,43	150,000 / 105,000; payback in less than 2 months – high level of efficiency
Scalability potential (100 STO)	UAH/ month	210 000	Forecasted profit assuming an increase in the partner base to 100, without a significant increase in fixed costs

Source: built by the author

Further testing of the program’s viability in a “moderate” scenario confirms its economic sustainability, albeit with a significantly slower return on investment. Given a partial slowdown in customer acquisition (35 active service stations), a smaller average check (3,500 UAH) and two purchases per month, one partner generates about 7,000 UAH of monthly revenue; the channel’s total revenue is approximately 245 thousand UAH. With an average gross margin of 25%, this corresponds to 61.25 thousand UAH of gross profit. With fixed costs for CRM and logistics (approximately 35 thousand UAH per month) and an increased bonus fund of up to 15 thousand UAH, the total costs are about 50 thousand UAH. Therefore, the expected net financial result of the scenario is about UAH 11.25 thousand per month, and the payback period for the initial investment (about UAH 150 thousand) increases to ≈ 13.3 months.

It is important that even under conservative assumptions, the channel remains break-even when achieving the minimum required revenue volume of ≈ 200 thousand UAH per month (the threshold value that covers 50 thousand UAH of expenses at a 25% margin). This is equivalent to about 29 active service stations with the specified parameters (average check 3,500 UAH, two purchases per month). For comparison: in the basic configuration (average check 4,000 UAH, three purchases), the break-even point is reached already at the level of ≈ 15 partners, which explains the high payback rate in the main scenario.

The results indicate the areas of greatest sensitivity: gross margin, average check, and repeat purchase frequency. These are the parameters that are prioritized in managing channel profitability: increasing repeat orders through automated reminders, last-mile optimization, and a personalized bonus matrix; maintaining margins through service differentiation (fast delivery windows, technical support, training materials for service centers); maintaining average check through bundles and cross-selling of related products. Taken together, this ensures a manageable transition from breakeven to steady cash flow growth even with a cautious scaling trajectory.

Table 2.18

Alternative (conservative) efficiency scenario

Indicator	Value
Average check	3,500 UAH
Order frequency	2 times/month.
Number of service stations	35
Monthly revenue	245,000 UAH
Gross profit (25%)	61,250 UAH
Expenses (CRM – 10 thousand, logistics – 25 thousand, bonuses – 15 thousand)	50,000 UAH
Net profit	11,250 UAH
Investment payback period	13.3 months.

Source: built by the author

The presented “moderate” scenario demonstrates that the channel remains profitable even under deteriorated conditions, but requires a longer payback horizon. This indicates a sufficient margin of financial stability of the initiative and provides grounds for implementing it without a threat to the liquidity of the enterprise. As the market adapts, the expected effects – a gradual increase in the number of active service stations, the average check and the frequency of repeat purchases – return the indicators to the trajectory of the baseline scenario.

For the correct interpretation of the results, a sensitivity analysis of key parameters was performed using the ceteris paribus principle. First, the impact of

a change in the average check within $\pm 20\%$ of the baseline value was assessed. Since revenue is the product of the average check, the frequency of orders, and the number of partners, the change in the average check is linearly translated into gross revenue and, at a constant margin, into gross profit. With fixed costs (CRM, last mile, bonus fund), this directly affects the channel's breakeven point.

The revenue threshold for breakeven in a “moderate” configuration is about UAH 200,000 per month (\approx UAH 50,000 fixed costs / 25% gross margin). This results in a threshold value of the average check that provides a zero result for 35 partners and two purchases per month: about UAH 2,857. That is, any steady increase in the average check above this limit, with other conditions remaining the same, generates a positive net result; a decrease requires either an increase in the frequency of purchases or an expansion of the partner base to maintain profitability.

From a performance management perspective, the biggest contributors to profitability are: (1) maintaining gross margin (service differentiation, SLA delivery, technical support), (2) increasing average order value through bundled offerings (oils + lubricants + filters), cross- and up-selling, and (3) managing order repeatability through automated reminders and delivery “planned windows.” These are the levers that should be embedded in the program and KPIs so that the channel’s sensitivity to average order fluctuations works to accelerate breakeven and stabilize cash flows.

Table 2.19

Dependence of net profit on the change in the average check per order

Average check (UAH)	Net profit (UAH/month)
3 200 (-20%)	72 000
3 600 (-10%)	88 500
4,000 (base)	105 000
4 400 (+10%)	121 500
4 800 (+20%)	138 000

Source: built by the author

The results presented in Table 2.19 show that even a moderate increase in the average check significantly scales the financial result of the channel: a 10% increase increases the monthly net profit by approximately UAH 16,000, and a 20% increase - by UAH 33,000. At the same time, a decrease in the average order symmetrically "hits" the margin: minus 10% from the base level practically "eats" up to UAH 16,500 of profit per month. Therefore, the tools for increasing the average check (package offers "oil + lubricants + filters", free delivery from a certain amount, cross- and upselling, deferred bonuses for the next purchase) have not only a marketing effect, but also a key financial effect and should be fixed in the terms of the program and KPI.

An equally sensitive parameter is the size of the partner base. With fixed margins, purchase frequency, and spending levels, increasing the number of active service stations linearly scales revenue and gross profit, while fixed costs (CRM, last mile, basic bonus fund) are spread over a larger volume of transactions. This reduces the average cost of servicing one partner and accelerates the achievement of the target level of profitability. The following table provides an estimate of the impact of the number of connected service stations on monthly net profit, other things being equal; these results should be used as guidelines for planning the pace of connection and for adjusting the bonus policy depending on the stage of channel scaling.

Table 2.20.

The impact of the number of active service stations on the level of monthly profit

Number of service stations	Net profit (UAH/month)
30	63 000
40	84 000
50 (basic)	105 000
60	126 000
70	147 000

Source: built by the author

The results presented in Table 2.20 confirm a proportional (almost linear) relationship between the number of active service stations and the channel's net profit. Due to the fact that a significant share of costs is fixed (CRM, basic logistics, administration), with the growth of the partner base, the marginal return also increases: an additional connected client generates an increasingly large increase in profit under unchanged service conditions. This creates the basis for scaling the program without a sharp increase in the cost part.

The assessment of scenarios of increasing operating costs (fuel, "last mile", expansion of the bonus program, indexation of warehouses) shows that the model remains stable within the limits of moderate cost growth: due to the presence of a fixed cost component, the relative impact on profit is less than proportional. At the same time, in the case of cumulative cost pressure (simultaneous increase in fuel, carrier tariffs and bonus fund), the rate of profit growth slows down, and the break-even point is shifted: to maintain current profitability, either a higher average check or a larger number of active partners are required.

Practical sensitivity control levers are as follows:

- Pricing and indexation: fuel surcharge on freight bills; zonal pricing by distance; seasonal price lists.
- Operational efficiency: consolidation of orders into "route waves", minimum order size for free delivery, regular shipment schedules, pre-season replenishment of partners' warehouses.
- KPIs and bonuses: transferring part of bonuses to deferred ones (for subsequent purchases); differentiation of incentives based on the implementation of plans; requirement for order frequency (service-level KPI) as a condition for preferential logistics.
- Digitalization: automatic formation of repeat orders in CRM, control of "slow" items, reminders about reaching the minimum check for free delivery.

Thus, even with increased costs, the project remains economically viable provided that the three sustainability drivers are actively managed: (1) average check, (2) number of active service stations, (3) logistics productivity per flight. Enforcing these rules in program policies and CRM-KPIs minimizes the risk of profitability decline and ensures scalable channel growth.

Table 2.21.

Sensitivity of profit to changes in operating expenses

Expenses (UAH/month)	Net profit (UAH/month)
40 000	110 000
45,000 (base)	105 000
55 000	95 000
65 000	85 000

Source: built by the author

Summarizing the results of the sensitivity analysis, we can state: even with an increase in operating costs of UAH 20,000, the “Partner STO” channel maintains a positive financial result, and therefore demonstrates high adaptability to fluctuations in the external environment. The stability effect is provided by three interrelated factors: a fixed share of costs (CRM, basic logistics), the ability to quickly increase the average check through packaging and service options, as well as a scalable increase in the STO base without a proportional increase in “last mile” costs.

To fully justify the feasibility of implementing the program, it is advisable to compare it with the current sales model through wholesale intermediaries. The traditional wholesale channel provides quick access to a wide range of end consumers and low administrative involvement, but is accompanied by lower trade margins, lack of transparent data on end consumption and limited influence on pricing and service standards. The credit risk in this channel is usually lower

at the level of an individual transaction (due to the concentration of supplies on a few large counterparties), but the systemic risk is higher: dependence on the conditions of one or two intermediaries, their promotional calendars and logistical priorities increases demand volatility and complicates inventory planning.

The “Partner STO” channel, on the contrary, generates higher margins due to direct pricing, increases market manageability (own service standards, delivery SLAs, personalized offers) and creates full analytics of the demand cycle – from order frequency and basket to promotional elasticity. At the same time, it requires initial investments in digital infrastructure, logistics regulations and customer service support; operational complexity is higher, and credit policy requires fine-tuning (limits, deferrals, scoring). From the point of view of working capital, the wholesale channel “unloads” the warehouse faster, while the direct channel reduces the depth of the promotional discount and margin losses, but requires greater discipline in managing delivery schedules and inventories at partners.

From the perspective of strategic flexibility, the “Service Station Partner” is a priority in the medium term: it reduces dependence on intermediaries, increases forecasting accuracy, and allows testing new SKUs and service models without long negotiation cycles. To minimize risks, it is advisable to maintain a balanced coexistence of channels: keep the wholesale channel as an “anchor” of volume, and the direct channel as a source of marginal growth, data, and loyalty. At the efficiency management level, this means regular comparison of channels using unified metrics: gross margin per liter, logistics productivity per flight, DSO/percentage of lateness, order frequency, average check, NPS of partners. This approach allows you to make informed decisions regarding the redistribution

of the promotional budget, expansion of the assortment, and the pace of program scaling without threatening the financial stability of Don-Terminal LLC.

Table 2.22.

Comparative characteristics of the wholesale and direct sales model of lubricants at Don-Terminal LLC

Comparison criterion	Wholesale model (through distributors)	Direct model (Service Station Partner program)
Margin level	Low (15–18%), a significant portion of the profit remains with the intermediary	Higher (25–30%) due to control over the final price
Control over pricing	Limited – the intermediary himself forms the final cost	Full control – prices are set by the supplier
Customer loyalty	The intermediary builds a relationship with the end client	Direct communication, the opportunity to form long-term relationships
Promptness of response to demand	Low – dependence on distributor logistics and accounting	High – direct ordering, fast delivery, personalization
Consumption data	Missing or fragmented – the intermediary does not provide analytics	Full analytics in CRM – volumes, frequency, order history
Ability to motivate customers	Limited, usually not managed by the vendor	A wide range of bonuses, cashbacks, and personal conditions
Logistics costs	Low, but no controlled service	Higher, but compensated by service and speed
Flexibility to adapt to the market	Low – changes occur with a delay through the chain	High – rapid testing of new mechanics and prices

Source: built by the author

Summarizing the results of calculations and comparative analysis, it can be stated that the direct sales model within the framework of the “Service Station Partner” program provides Don-Terminal LLC with significant strategic and financial advantages. Its implementation restores the company’s control over the entire value chain – from pricing and service standards to last-mile logistics – and opens up full access to customer behavior data via CRM. It is the availability of high-quality analytics that allows you to quickly adjust the assortment, test promotional mechanics, personalize offers, and thereby systematically increase margins. Despite slightly higher operating costs at the start, the cumulative effect

of direct interaction with partners (higher trade markup, lower promotional losses, better demand predictability) generates a tangible increase in profitability.

The baseline scenario demonstrates high economic feasibility of the initiative: net monthly profit exceeds UAH 100,000 even with a minimum coverage of 50 service stations, and the payback period of the initial investment is less than two months. Even in a conservative configuration, which takes into account a decrease in the average check and order frequency and an increase in the bonus fund, the project maintains a positive financial result, which indicates a low risk and stability of the model to changes in the external environment. Factor analysis confirms the manageability of key efficiency drivers: the average check, the size of the customer base and the level of fixed costs within the range of $\pm 10\text{--}20\%$ have a predictable impact on the final indicators, which simplifies budget and operational planning.

Comparison with the traditional wholesale scheme has shown additional strategic benefits of the direct channel: increased margins due to control over the final price; loyalty formation through standardized service, delivery SLAs and bonus programs; reduction of information asymmetry due to full transparency of order data, regularity of purchases and elasticity of demand. In contrast, the wholesale channel, while retaining certain logistical advantages, limits the company's influence on promotion and complicates strategic planning due to fragmented information and dependence on the policies of intermediaries.

Therefore, the “Partner STO” program is not only financially sound, but also strategically significant for updating the sales model of LLC “Don-Terminal”. It reduces dependence on intermediaries, strengthens positions in the retail B2B segment, creates an independent channel with forecasted demand and improves the quality of management decisions thanks to data. In the long term, this initiative can serve as the core of digital sales transformation, providing a balanced combination of scaling, margin and flexibility in responding to market changes.

The guidelines of the distribution strategy of Don-Terminal LLC are aimed at combining control over sales channels with the expansion of direct presence in target segments. The basic goals are: increasing channel manageability and sales margins; integrating digital solutions into customer interaction processes (CRM, online order cabinets, electronic document management); reducing dependence on intermediaries through the development of direct deliveries to service stations, agricultural enterprises and regional logistics companies; forming sustainable partner loyalty through standardized service, SLA for delivery and a transparent bonus policy. The chosen hybrid model - a combination of direct sales and selective work with distributors, supplemented by digital channels - should ensure sales scalability without losing operational control.

The effectiveness of implementing this model depends on several critical conditions. First of all, phased strategic planning is required with clearly defined results of each phase, responsible roles and calendar boundaries, coordinated with resource provision (finances, personnel, IT infrastructure, transport). Internal communications should guarantee employee involvement: service standards, pricing rules, CRM work algorithms and logistics process regulations should be fixed in internal policies and worked out in training sessions. A necessary prerequisite is the technical readiness of the digital infrastructure: before launch, load testing of CRM and integrations (order exchange, e-invoices, analytical dashboards) should be carried out, as well as checking the consistency of IT and logistics SLAs.

Since the market environment is characterized by volatility, the implementation process must be adaptive: for key risks (supply disruptions, price fluctuations, irregular demand), scenario maps of actions are formed - from the correction of minimum batches and shipment schedules to temporary changes in the bonus policy. Constant monitoring and feedback are built into the management system: along with financial and quantitative indicators (income, margin, inventory turnover, regional coverage), qualitative metrics are tracked -

partner satisfaction index, share of timely deliveries, frequency of repeat orders, compliance with calculation and service standards. The set of these conditions forms a methodological framework for implementation, the stages of which are detailed in Table. 2.23.

Table 2.23

**Stages of implementing the chosen distribution strategy
for LLC "Don-Terminal"**

№	Stage	Contents of the works	Term	Responsible
1	2	3	4	5
1	Audit of current sales channels	Data collection on distributors and direct customers; ABC/XYZ analysis, regional coverage map, identification of “bottlenecks” (logistics, pricing, service)	3–4 weeks	Management, B2B sales department, analytics
2	Designing the "Partner Service Center" model and KPIs	Pricing and bonus policy, delivery SLA, KPI matrix (activity, average check, repeat orders), service regulations	2–3 weeks	Sales, Marketing, Finance
3	CRM selection and implementation	Platform selection; integrations with accounting/e-document management; partner account/Telegram bot; dashboards	6–8 weeks	IT, accounting, sales
4	Contract restructuring	New contracts with distributors and service stations: pricing standards, territoriality, reporting, KPI clauses	3–4 weeks	Legal, sales, finance
5	Pilot of direct deliveries and micro-warehouses	Launch at 10–15 service stations in 1–2 regions; test routes, “hourly windows”, local hubs (micro-warehouses)	6–8 weeks	Logistics, sales, IT

Continuation of Table 2.23

6	Marketing enablement partners	Service station onboarding, technical cards/oil selection, content and promo packages, NPS survey, manager training	4–6 weeks	Marketing, sales, service
7	Scaling the application	Expansion into new regions; connecting agricultural enterprises and regional logistics companies; optimizing the assortment	8–12 weeks	Management, sales, logistics
8	Monitoring and optimization	Monthly KPI reviews, bonus/route adjustments, A/B testing of offers, quarterly strategy session	Constantly	Analytics, sales, marketing, logistics

Source: built by the author

The stages of implementing the distribution strategy for Don Terminal include a consistent transformation of the sales system in the direction of direct interaction with B2B clients. At the start, an in-depth audit of existing channels and partners is carried out: the geography of coverage, the rhythm of deliveries, the fulfillment of price conditions and the level of service are analyzed. Based on the audit results, a portfolio of priority clients (service stations, agricultural enterprises, regional logistics companies) is formed and regions are determined for pilot deployment of the program.

The next step is to create a digital interaction management circuit: CRM with a partner's office and integration with the accounting system and e-document management is being implemented. This ensures the automation of orders, transparent tracking of applications and deliveries, recording of contact history, as well as the formation of an analytics database for further planning. At the same time, contractual relations are being updated - new types of contracts are being concluded with prescribed KPIs regarding the frequency of purchases, average

order, fulfillment of acceptance schedules and service standards; bonus incentive mechanisms are being introduced for achieving target indicators.

As part of the digital transformation, a partner online channel is being deployed: personal accounts for orders and repeat purchases, quick templates based on previous deliveries, viscosity guides and lubricant selection by type of equipment. For certain product categories that are relevant for small retail sales, limited integration with marketplaces may be used; at the same time, priority is given to direct B2B transactions, where the company controls pricing, service, and logistics.

A separate direction is the optimization of the "last mile". The company is testing micro-warehouses in partner locations and hourly delivery windows, which reduces order fulfillment time and reduces routing costs. Based on the results of the pilot, scaling is taking place to new regions with the assortment adjusted to local demand.

To improve the manageability of field processes, a mobile B2B application is offered for sales managers and service station partners. Its functionality is focused on the specifics of lubricants and includes digital checklists for receiving goods, photo recording of the availability of POS materials and branded equipment, prompt registration of applications and complaints, control of balances in the partner's warehouse, tips on selecting oils based on equipment parameters, as well as instant messaging with the Don Terminal manager. This solution ensures standardization of service at points of contact, reduces incident response time, and increases the accuracy of replenishment of stocks through automated reorders. The list of key functions and requirements for the application is detailed in Table 2.24.

Table 2.24

**Main functions of the mobile B2B application for
LLC "Don-Terminal"**

Function	Description and benefits
Quick order / repeat purchases	Placing an order in 2–3 clicks from “templates” of previous deliveries; reduces time and errors when ordering.
Selection of lubricants	Built-in selector by type of equipment, viscosity, OEM approvals; minimizes technical risks and returns.
Prices and personal conditions	Automatic display of individual price lists, discounts, bonuses and minimum orders for each partner.
Document reference (TDS/MSDS)	Offline access to technical and safety data sheets; quick links from the product card.
E-document management	E-invoices, invoices, deeds, e-signature; reducing paper costs and accelerating deal closing.
Delivery Tracking and Proof-of-Delivery	GPS flight tracking, estimated arrival time, photo/e-signature upon shipment; last mile transparency.
Partner balance management	Accounting for service station inventory balances, minimum level alerts, recommendations for reordering.
Routes and geanalytics	Building routes for couriers/managers, visits, geotagging; increases field work productivity.
Service requests and complaints	Tickets with photos/videos, SLA, performance statuses; reduces response time and service loss.
Communications	Partner- manager chat, push notifications about promotions, shipments, and schedule changes.
Promotions, bundles and cross-sells	Personalized offers (set: oil+filter+sealant), coupons, cashback; increase in average check.
Return of containers / used oils	Return applications, certification, removal schedules; compliance with environmental requirements.
Partner KPIs and analytics	Dashboard: order frequency, average check, plan execution, overdue payments; basis for motivation.
Educational materials	Microcourses and instructions on the selection and operation of oils, tests; reduces errors by service station personnel.

Source: built by the author

It is advisable to consider the mobile B2B application for Don-Terminal LLC as a key element of the digital infrastructure of the direct sales channel. Its

functionality should provide not only prompt order processing, but also a full cycle of service stations: selection of lubricants by type of equipment and OEM approvals, access to technical documentation (TDS/MSDS) in offline mode, e-document management (invoices, e-invoices, acts, confirmation of receipt), delivery tracking with Proof-of-Delivery fixation, as well as modules for managing residues and returning containers/used oils. Built-in geolocation and routes allow you to coordinate visits of the sales team and couriers, and the “partner - manager” chat - to support quick feedback and resolve service requests within the agreed SLA. Training micro-courses for service station technicians and managers (correct product selection, mixing rules, environmental requirements) reduce technical errors and the number of complaints.

The introduction of such an application creates measurable strategic advantages for Don Terminal. First, there is a “digitization” of interaction with partners: all transactions are recorded in a single environment, which increases transparency, manageability of receivables and the quality of inventory planning. Second, the turnover rate increases - repeat purchases are formed from templates, and system prompts for reordering prevent shortages at service stations. Third, a basis for personalized commercial policy appears: the application displays individual prices, bonuses and service packages, and the collected analytics (order frequency, average check, plan execution) directly feeds the KPI model of the Service Station Partner program. Fourth, the integrated environmental support module (return of containers and used oils) strengthens compliance with regulatory requirements and the company's reputation.

As a result, the mobile application acts as a “single window” for interaction with service stations and logically combines sales, service, logistics and

compliance into a single managed system. That is why its implementation should be considered as a mandatory component of the updated distribution model of “Don-Terminal”, which ensures the stable presence of partner brands, improves the quality of product presentation in the regions and speeds up data-based management decision-making. The generalized expected benefits from the implementation of the application are presented in Fig. 2.9.

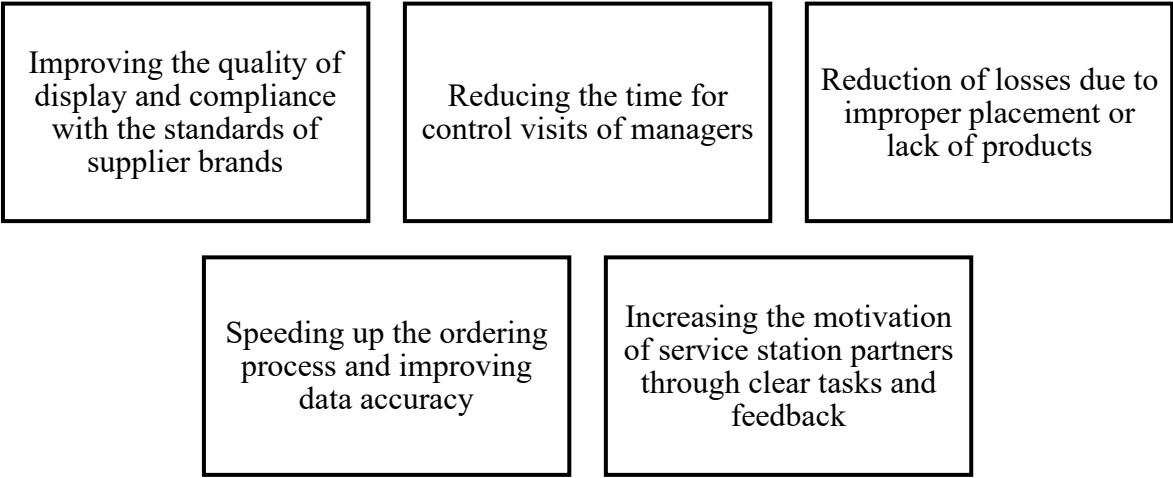


Fig. 2.9 Expected benefits from implementing the application for “Don-Terminal”

Source: built by the author

The implementation of a mobile application for merchandising and order control at Don-Terminal LLC enhances the manageability of distribution processes throughout the entire chain of interaction with service station partners. Digital recording of the inventory (photos and checklists), geolocation control of visits, processing of “quick” applications and e-document management reduce dependence on manual reporting, increase the accuracy of orders and accelerate the exchange of information between sales representatives, logistics and

management. Integration of the application with CRM and WMS provides a single source of data for planning deliveries, replenishing inventories and monitoring SLA for delivery; as a result, out-of-stock cases are reduced, the “order-delivery” cycle is shortened, the share of urgent flights is reduced and the level of service for end customers is increased. Such digital communication makes the sales system more flexible, makes it possible to quickly adapt to the specifics of regional segments and increases the efficiency of implementing the chosen distribution strategy.

To launch the tool without failures and avoid duplication of functions, the project uses the RACI responsibility matrix, adapted to the organizational structure of Don-Terminal LLC. It clearly distributes roles between the departments involved: the strategic initiative owner (director/commercial director) is responsible for the final result; the product owner/CRM manager is responsible for requirements, backlog, and work acceptance; the IT team and external developer perform technical implementation and integration; the sales department and regional partner coordinators are responsible for operational implementation at service stations; logistics provides route and SLA settings; marketing - content and calculation standards; finance - budget and payments; legal department and compliance - contractual terms, data protection, and access policies; support service - onboarding and user support; service station partners - provide feedback and confirm compliance with standards. A detailed assignment of roles to the categories R (Responsible), A (Accountable), C (Consulted) and I (Informed) with reference to the stages of "design - pilot - replication - support" is given in Table 2.25.

Table 2.25

Responsibility matrix for implementing a mobile application in Don-Terminal LLC

Task / Stage	Project Owner (Commercial Director)	Product Owner / CRM	IT department	Sales Department (KAM/Field)	Logistics / WMS	Marketing / Brand	Finance and legal compliance	Support service	Partners-STO	External developer
1	2	3	4	5	6	7	8	9	10	11
1. Defining business goals and KPIs	A	R	C	C	C	C	C	I	I	I
2. Formation of technical specifications	A	R	R	C	C	C	C	I	I	C
3. Contractor selection / tender	A	R	C	I	I	C	C	I	I	–
4. Prototype development (UX/UI, scripts)	I	R	C	C	C	C	I	I	C	R
5. Programming and integration (CRM, WMS/1C/ERP, e-document management)	I	C	R	C	R	I	C	I	I	R
6. Testing (UAT) and pilot at 5 service stations	C	R	R	R	C	C	I	C	R	C

Continuation of Table 2.25

1	2	3	4	5	6	7	8	9	10	11
7. Training	I	R	C	R	C	C	I	R	R	C
8. Go-live	A	R	R	R	R	C	C	R	I	C
9. SLA monitoring, incidents, support	A	C	R	C	C	I	I	R	C	C
10. Analytics, reporting, improvement	A	R	C	C	C	C	I	C	C	I
11. Functionality update/development (roadmap)	A	R	R	C	C	C	I	C	C	R

Source: built by the author

The matrix covers the full life cycle of creating and operating a B2B application: from setting goals and KPIs, forming a technical task and selecting a contractor to development, integration with CRM/ERP/WMS, testing, training users (sales representatives and distribution partners) and further support after launch. The intended responsibility matrix (RACI) includes key internal departments of Don-Terminal LLC (IT/information systems, sales department, logistics/WMS, marketing and brand management, finance/accounting, service/SERVICE), an external developer and distributors as end users (Table 2.25).

To implement an updated distribution strategy through the implementation of a mobile B2B solution, it is necessary to attract a balanced package of resources (Fig. 2.10):

- organizational: steering committee, Product Owner from the company, approved RACI matrix, data regulations and SOPs for field teams;
- financial: CAPEX budget for development and integration; OPEX for licenses, support, training and analytics;
- technical: integrations with CRM/ERP/WMS and MDM, role-based access model, cybersecurity, SLA with the contractor;
- Human: user training and certification program, “change-champions” system in sales and logistics.

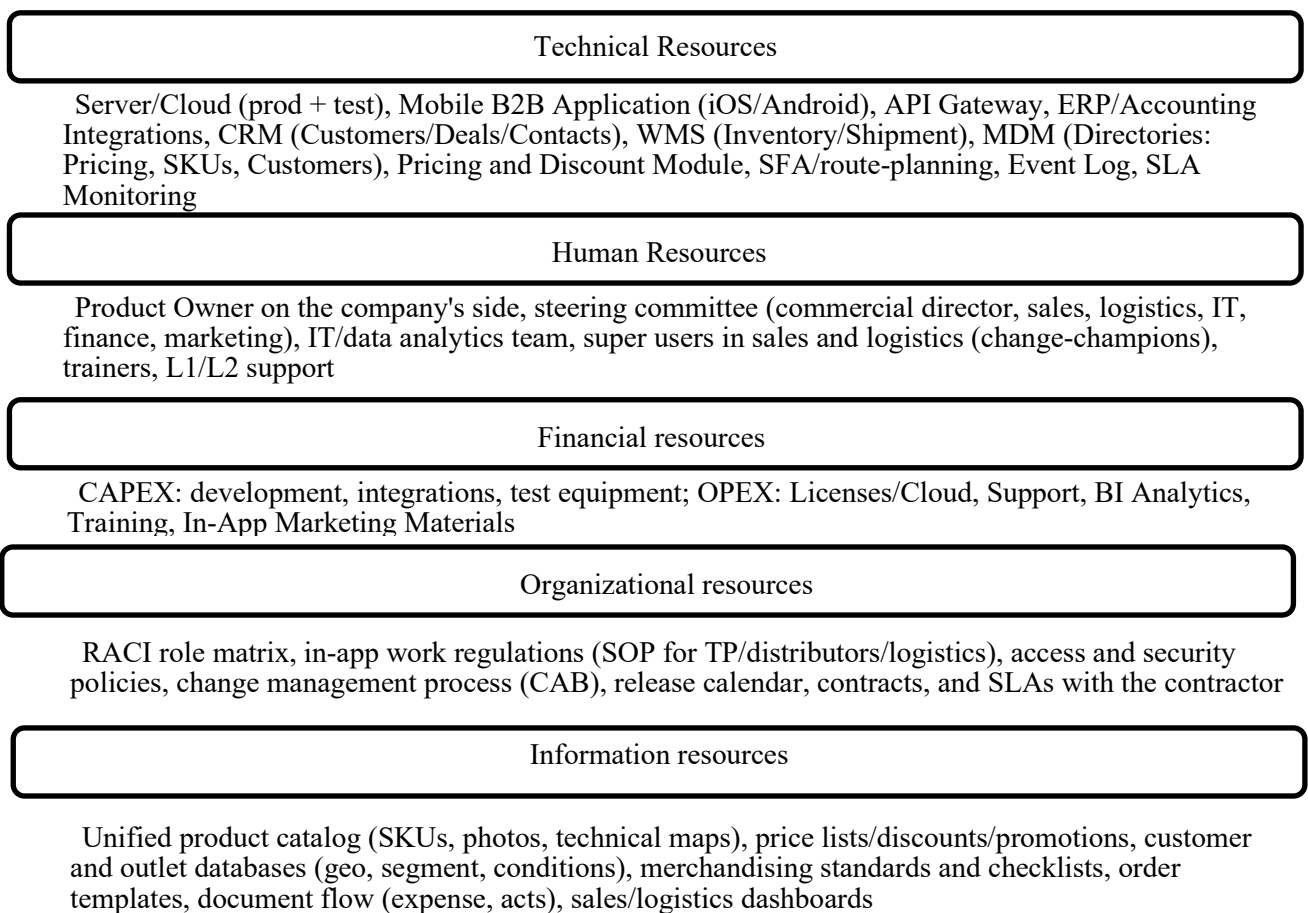


Fig. 2.10 Key resources for implementing a mobile B2B application for LLC "Don-Terminal"

Source: built by the author

The proposed set of resources allows you to deploy a mobile B2B application as a central element of the digital transformation of sales of LLC

"Don-Terminal". From a scientific and practical point of view, it is a tool for increasing organizational maturity: through standardization of procedures, information asymmetry between sales, logistics and finance departments is reduced, and management decisions are transferred to data that is formed in a mode close to real time. Thus, the company receives a controlled contour of planning and order fulfillment, in which data sources are coordinated, and the responsibility of the process participants is fixed in regulations and the RACI matrix.

Functionally, the application combines three interconnected planes. The first is transactional, where orders are placed, terms are agreed upon, and electronic document flow is maintained. The second is operational, which includes inventory control, work with merchandising checklists, sales representative routing, and full integration with corporate accounting systems, customer interaction, and inventory management. The third is analytical, within which dashboards are created for customer segmentation, service level agreement fulfillment is assessed, ABC and XYZ analyses are conducted, and key performance indicators are tracked.

The causal chain of expected effects is as follows. A harmonized database of references by nomenclature, price lists and customers increases the accuracy of primary data. Reducing errors in orders and accompanying documents reduces their processing time. This, in turn, accelerates the execution of deliveries and improves cash flow due to more disciplined collection. Over a period of several months, such dynamics usually transform into a stable decrease in operating costs and an increase in marginal income.

The working hypotheses of effectiveness are subject to further statistical testing on actual data. First, the launch of order and directory management modules is likely to increase order accuracy by at least a few percentage points. Second, integration with the warehouse management system should reduce the share of shortages and surpluses in the pilot channels by about a fifth. Third,

standardized merchandising checklists will increase shelf compliance by a single-digit percentage. Fourth, management analytics should reduce average order fulfillment time by a significant amount, within tens of percent of the baseline.

Operational benefits will be reflected in several interrelated dimensions. The cost dimension involves a reduction in the frequency of on-site audits, fewer errors and returns, and optimization of control labor costs. The time dimension includes a reduction in the approval cycle, faster onboarding of new partners, and reduced downtime at bottlenecks in the process. The qualitative dimension ensures unification of pricing and transparency of conditions for counterparties, as well as traceability of incidents and control of their elimination. The financial dimension is reflected in an increase in turnover and gross profit due to a more complete replenishment of the shelf and better order conversion, as well as in an improvement in cash flow due to a shorter collection cycle.

To reduce the risks of transformation, it is advisable to apply a phased implementation model. First, requirements for a minimum viable product are formed and a pilot is conducted with a limited number of key distributors. Then the functionality is expanded according to the quarterly release calendar, and after confirming the hypotheses, the training, support and data quality control processes are scaled. Change management is undertaken by a steering committee with the participation of the commercial director, sales, logistics, IT and finance managers. Data protection is provided by a role-based access model, a single point of entry, multi-factor authentication, encryption, backup and auditing of user actions.

The performance measurement system should include order accuracy, full and on-time delivery, shelf-life, error rate, average order fulfillment time, app user activity, and partner satisfaction index. The economic evaluation uses the cumulative effect of increasing marginal revenue, reducing costs, and supporting solution costs; this is used to calculate the net present value, internal rate of return, and payback period.

Given the synergy of revenue growth and cost reduction, we can expect an accelerated return on investment in the development and implementation of a mobile solution, and the strategic priorities of Don-Terminal - transparent sales channels, managed logistics and a high level of service for partners - receive sustainable technological support. The composition and approximate amounts of investment required to create and launch the application in the company are presented below, which are summarized in Table 2.26.

Table 2.26

**Calculating investment in a mobile B2B application
(Don-Terminal LLC)**

Expense category	Detailing	Estimated amount, UAH
1	2	3
One-time investments (CAPEX)		
Analytics and design	Requirements gathering, process modeling, technical specifications	120 000
Development of an applied solution	iOS/Android mobile clients, backend, admin panel	420 000
Integration layer and MDM	API gateway, directory synchronization (SKU, customers, price lists)	180 000
Integrations with corporate systems	ERP/Accounting, CRM, WMS, BI-windows	220 000
Data and content preparation	Migration of directories, catalog, photos/datasheets	70 000
Testing and pilot	UAT, field pilot with 3–5 distributors	90 000
Training and change management	Materials, trainings, partner onboarding	80 000
Security	SSO/MFA settings, access policies, audit/pen test	60 000
Project Management (PMO)	Coordination, quality control, release calendar	100 000
Total CAPEX		1 340 000
Annual Expenses (OPEX) – First Year of Operation		
Infrastructure	Cloud prod/test, monitoring, backup	120 000
Licenses and services	Analytics/MDM platforms, certificates, domains	90 000

Continuation of Table 2.26

1	2	3
Support and development	L1/L2 support, minor releases, fixes	180 000
Communications with partners	Instructions, meetings, implementation materials	40 000
Operational reserve	Incidents, unforeseen expenses	50 000
Total OPEX (1 year)		480 000

Source: built by the author

The total investment requirement for creating and implementing a mobile B2B application in an enterprise is approximately UAH 1,820,000 in the first year, of which one-time capital expenditures form UAH 1,340,000, and annual operating expenses in the first year are UAH 480,000. The largest share of capital investments falls on application development, integration layer, data preparation and security settings, which reflects the high-tech nature of the solution and the need for reliable connection to corporate accounting, customer management and inventory systems. Operating expenses in the first year are formed by cloud infrastructure, application service licenses, user support and planned development of functionality.

The chosen budget structure is economically justified, as it combines the creation of a software product with the organizational prerequisites for its effective operation: training and onboarding of partners, change management, process regulation, and ensuring information security. This approach makes it possible not only to obtain a high-quality tool, but also sustainable results in distribution: increased order accuracy, transparency of mutual settlements, reduction of logistical losses, and acceleration of the order fulfillment cycle.

In the medium term, a combination of two effects is expected: a reduction in operating costs due to automation of control and document flow and an increase in income due to improved calculations, timely replenishment of stocks and improved service for partners. The aggregate financial result forms the basis for a

quick payback of the project and positive indicators of net present value and internal rate of return. The next step is to provide approximate calculations of cost savings and increase in results after implementing the solution in Don-Terminal LLC (Table 2.27).

Table 2.27

Cost savings after implementing a mobile B2B application

Expense items	Current expenses / year (before implementation), UAH	Expected costs / year (after implementation), UAH	Savings, UAH / year
Merchandising audit and control (visits, inspections)	360 000	180 000	180 000
Errors in orders and accompanying documents (returns, re-shipments)	210 000	90 000	120 000
Excess inventory and write-offs (logistical losses)	300 000	210 000	90 000
Telephone/manual orders and sales rep time consumption	120 000	50 000	70 000
Delivery delays due to inconsistent communication	150 000	70 000	80 000
Administrative time for approval of prices, promotions and conditions	160 000	90 000	70 000
Printing and handouts for merch standards (transition to digital checklists)	60 000	25 000	35 000
Data quality incidents (corrections, duplicate directories, reconciliations)	110 000	50 000	60 000
Total annual savings			705 000

Source: built by the author

The implementation of the mobile B2B application allows Don Terminal to optimize key distribution operational processes and significantly reduce costs for merchandising control, document error correction, excess inventory maintenance, price coordination, and operational communication. The generalized estimate shows annual cost savings of about UAH 705,000 (Table 3.9). Taking into account the necessary operating costs of the first year of operation of the solution (OPEX \approx UAH 480,000), the net effect by cost unit is approximately UAH 225,000 per year.

The initial capital investment in the creation and launch of the application is estimated at UAH 1.34 million. Therefore, due to cost reductions alone, the payback period for investments is medium-term. At the same time, the economic result of the project is formed not only by cost effects. The application strengthens the implementation of calculation standards, increases the accuracy of orders and the timeliness of replenishment of stocks, which creates the prerequisites for the growth of revenue and marginal income. It is the combination of cost savings and sales growth that ensures accelerated payback and forms positive values of net present value and internal rate of return.

Next, we present an estimate of the possible increase in revenue and marginal result after implementing the solution in Don-Terminal LLC (Table 2.28).

Table 2.28

Sales forecast (Don-Terminal LLC)

Sales channel	Share in sales structure, %	Sales in 2024, thousand UAH	Expected growth, %	Forecast for the year, thousand UAH	Growth, thousand UAH
1	2	3	4	5	6
Regional distributors and car dealerships	45	156 271	8	168 773	+12 502

Continuation of Table 2.28

1	2	3	4	5	6
Service stations/car services and corporate fleets	35	121 544	15	139 776	+18 232
Direct industrial customers	15	52 090	6	55 216	+3 125
Online channels (e-commerce, marketplaces)	5	17 363	25	21 704	+4 341
Together	100	347 269	–	385 469	+38 200

Source: built by the author

After the implementation of the updated distribution strategy and the mobile B2B application, annual sales are expected to increase from UAH 347,269 thousand to UAH 385,469 thousand. The increase is about UAH 38,200 thousand (approximately 11% year-on-year; see Table 3.10). The largest contribution to the increase is made by the segment of service stations, car services and corporate fleets due to increased order accuracy, faster replenishment of stocks and more transparent terms of cooperation. The second largest contribution is made by the group of regional distributors and car shops, where the effect is provided by unified price lists, electronic document flow and standardized merchandising checklists. Additional growth is provided by direct industrial customers and online channels that respond to operational analytics and centralized stock management.

Thus, the proposed changes are not only economically justified, but also strategically necessary for the sustainable strengthening of Don Terminal's positions in the lubricants and related products market. Given the importance of the financial component of the project, the next step is to summarize the expected

economic effect of implementing the new distribution strategy and the mobile B2B solution as a whole (Table 2.29).

Table 2.29

Total expected economic effect of Don-Terminal LLC

Direction of influence	Description	Expected effect, thousand UAH / year
Sales growth	Improved order accuracy, timely replenishment of inventory, better visibility of promotions across channels	+38 200
Savings on merchandising audit and control	Fewer visits and inspections thanks to digital checklists and photo capture	+180
Fewer errors in orders and documents	Process automation and agreed-upon guides	+120
Reduction of excess inventory and write-offs	More accurate supply planning and balance analytics	+90
Reduction of telephone/manual operations	Transition to electronic orders, freeing up TP time	+70
Fewer delivery delays due to communication	A single information circuit with partners	+80
Less admin time for agreeing prices/promotions/terms	Regulations and centralized pricing in the B2B application	+70
Savings on printing and handouts	Transition to digital merchandising standards	+35
Fewer data quality incidents	MDM, role-based access, change auditing	+60
Total annual economic effect (gross)		+38 905
Minus annual operating expenses (OPEX, 1st year)	Cloud, licenses, support, minor releases	- 480
Expected net annual effect		+38 425

Source: built by the author

The implementation of a mobile B2B application together with a modernized distribution strategy generates a total economic result due to two sources: first, sales growth, which is transformed into additional marginal income; second, direct cost savings. According to the forecast results (Table 3.10), the expected revenue growth is about UAH 38.2 million per year. Taking into account the company's average gross margin ($\approx 23\%$ for 2024), this gives approximately UAH 8.85 million of additional marginal income. Let's add the cost effects from Table 3.9 - UAH 0.705 million of savings - and subtract the annual operating costs of supporting the solution (OPEX \approx UAH 0.48 million). The net annual effect is about UAH 9.1 million.

The initial capital investment in the creation and launch of the solution is estimated at UAH 1.34 million (Table 3.8). According to the above parameters, the payback period for capital expenditures is about 1.5–2 months, and the ROI of the first year relative to the full investment (CAPEX + OPEX = UAH 1.82 million) is about $\approx 500\%$. The realization of the effect depends on data discipline, completeness of integrations and the level of partner involvement; that is why the implementation plan provides for a pilot, phased releases, a training program and RACI regulations.

The next step is to provide a formalized assessment of investment effectiveness (Table 2.30): payback period, return on investment (ROI), and discounted efficiency indicators (NPV, IRR) based on the proposed cash flows.

Table 2.30

Investment performance indicators of Don-Terminal LLC

Indicator	Formula/approach	Approximate value
1	2	3
Investment volume (1st year)	CAPEX + OPEX	1,340,000 + 480,000 = 1,820,000 UAH
Annual economic effect, gross	Revenue growth \times gross margin + cost savings	$(38\,200\,000 \times 0,23) + 705\,000 = \mathbf{9,491,000\ UAH}$

Continuation of Table 2.30

1	2	3
Annual economic effect, net	Gross effect – OPEX	9 491 000 – 480 000 = 9,011,000 UAH
CAPEX Payback Period	CAPEX / Net annual effect	(1 340 000 / 9 011 000) ≈ 0.15 years (~1.8 months)
ROI (annual, on full investment)	Net annual effect / (CAPEX + OPEX)	(9 011 000 / 1 820 000) ≈ 495%

Source: built by the author

The calculations confirm the economic feasibility of digitalizing distribution based on a mobile B2B application. The total investment of the first year (capital expenditures of UAH 1.34 million and operating expenses of UAH 0.48 million) provides an expected net annual effect of about UAH 9.01 million, formed by a combination of marginal revenue growth and cost savings. The payback period for capital expenditures is approximately 0.15 years, i.e. about two months, and the annual return on investment, calculated relative to the full investment, reaches about 495 percent. Thus, the proposed model is not only financially effective, but also strategically sound: it increases the transparency of sales channels, the discipline of implementing standards, and the quality of interaction with partners.

The sustainability of the effect depends on several prerequisites: the proper quality of directories and order data, the completeness of integrations with accounting, client and warehouse systems, compliance with the application's usage regulations, as well as regular monitoring of key indicators (order accuracy, full and on-time delivery, level of compliance with calculation standards, average order fulfillment time, user activity and partner satisfaction). Under these conditions, the digital distribution model of Don-Terminal creates a long-term basis for sales growth, cost optimization and strengthening the company's competitive position in the lubricants and related products market.

2.6. Marketing strategy as a component of a strategic plan

Strategic marketing strategy is a functional strategy that aligns market decisions with corporate goals for growth and profitability [16, p.258]. For Don-Terminal, its core is systematic market research: the capacity and dynamics of segments (service stations/fleets, regional distributors, industrial consumers, online channels), seasonality of demand (oil change, peak tires/maintenance season), competition structure, regional differences in consumption, and sensitivity to price and service. The result of the research should be clearly defined “ideal customer profiles” (ICP) and a consumer value map: what exactly each segment values – delivery speed and OTIF, technical expertise, brand quality guarantees, transparent conditions, and ease of ordering.

Within the framework of strategic management, marketing plays an active role in creating competitive advantage: it forms the positioning of the portfolio (brand mix of leading suppliers, own TM/service kits), defines target segments, sales channels and pricing rules, and also sets standards for the partner's experience at each point of contact - from finding a solution to after-sales support [16]. In practice, this means a coordinated STP-4P/7P cycle for B2B: segmentation (service stations, distributors, industrial customers, e-commerce), targeting with clear value propositions, positioning "speed + reliability + expertise", product policy with an emphasis on key SKUs and service kits for typical service station work, price and discount policy, standards of calculation and promotion, service and support (training of craftsmen, technical consultations).

Empirical studies show that companies with a documented marketing strategy are significantly more likely to achieve their goals than those that act situationally [39]. For Don-Terminal, this translates into the practice of goals and key results (OKRs) and measurable KPIs at each stage of the funnel: recognition in target regions, shelf share and fulfillment of merch standards at partners, share of electronic orders, conversion of offer into order, average check and margin per SKU, repeat purchases, partner satisfaction (NPS). Such indicators should be fed

by data from CRM and B2B application, which provides “data-driven” adjustment of tactics.

Taking into account the industry specifics, the marketing strategy of Don Terminal should include: key account management for networks and fleets (agreed KPIs/SLAs and joint planning), partner programs for regional distributors (rating, motivation, training), technical content and service expertise for service stations, omnichannel presence (B2B portal, marketplaces) and an agreed promotional policy by season. As a result, marketing ceases to be “sales support” and becomes a mechanism for strategic growth and value management for priority segments [11, p.93].

Summarizing approaches to designing a marketing strategy, a number of authors (Stadnik V., Yokhna V., Khrushch V.) identify a sequence of stages that ensure a logical transition from market analytics to implementation and control of results [28, p.177]. For Don-Terminal, this sequence takes on a B2B orientation: decisions are made based on data from CRM and operating systems, and control is carried out through measured KPIs and quarterly progress reviews.

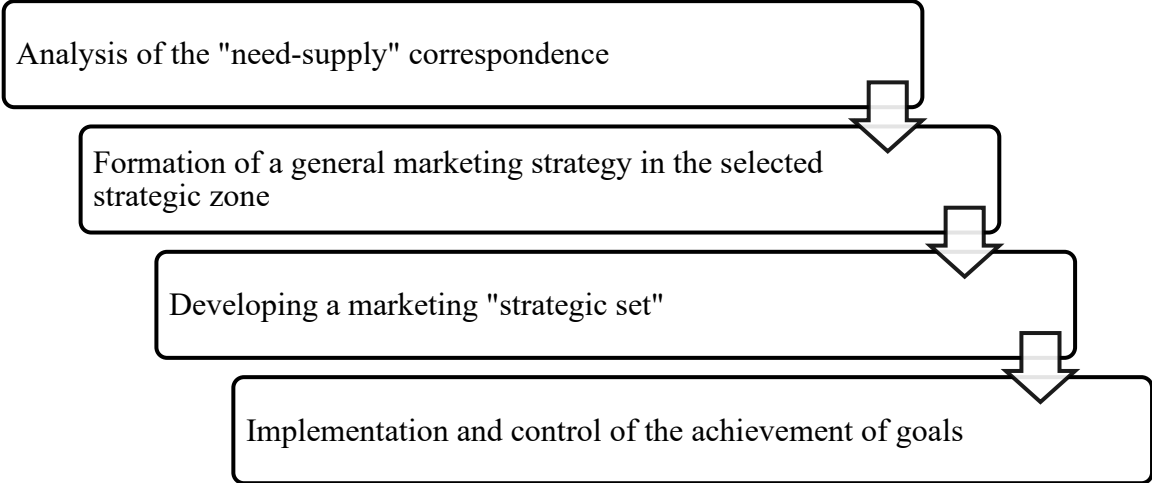


Fig. 2.11 Stages of forming and implementing a marketing strategy

Source: constructed by the author based on [28, p.177]

The formation and implementation of a marketing strategy is a managed process that combines analytics, target segment selection, and operational implementation. The first stage involves assessing the correspondence between

customer needs and the company's offering. For Don-Terminal, this means determining the expectations of service stations, corporate fleets, regional distributors, and industrial consumers regarding speed of delivery, reliability, technical support, and transparent terms of cooperation. Next, a general marketing strategy is formed in selected strategic areas: growth and profitability goals are set, segments are outlined, positioning principles and pricing rules are determined. The next step is to construct a "strategic set" of marketing: product policy (key SKUs and service kits), sales channels, promotional tools, and service support. The final stage involves implementing measures and systematically monitoring the achievement of goals with adjusting tactics based on CRM and BI analytics data [28, p.177].

Marketing strategy is a basic component of the strategic plan of the enterprise, since it determines how the company creates and delivers value to priority segments. Within it, the distribution policy occupies a central place: it ensures the efficient movement of products from the supplier to the end user in the channels relevant to each segment, and directly affects sales and partner satisfaction. Therefore, the distribution policy is an integral element of the marketing mix and a key mechanism for implementing the strategy.

As emphasized by Kuzminchuk N. V., Lytovchenko O. Yu. and Izvekova O. V. [13, p.57], marketing through its own tools allows you to assess the rationality of distribution activities: the correspondence of channels to the needs of target audiences, the availability of goods, transportation and storage costs, as well as consistency with the overall goals of the enterprise. It follows that the marketing function is not limited to the formation of sales channels; it includes their constant analysis, optimization and adaptation to market changes.

When designing a sales policy, it is advisable to choose a type of distribution that meets the strategic goals and characteristics of the product. The literature (Sheremeta O. [37, p.18]) identifies basic approaches, which we adapt

to the conditions of "Don Terminal" and present in Fig. 2.12 "Types of distribution in the marketing strategy of the enterprise."

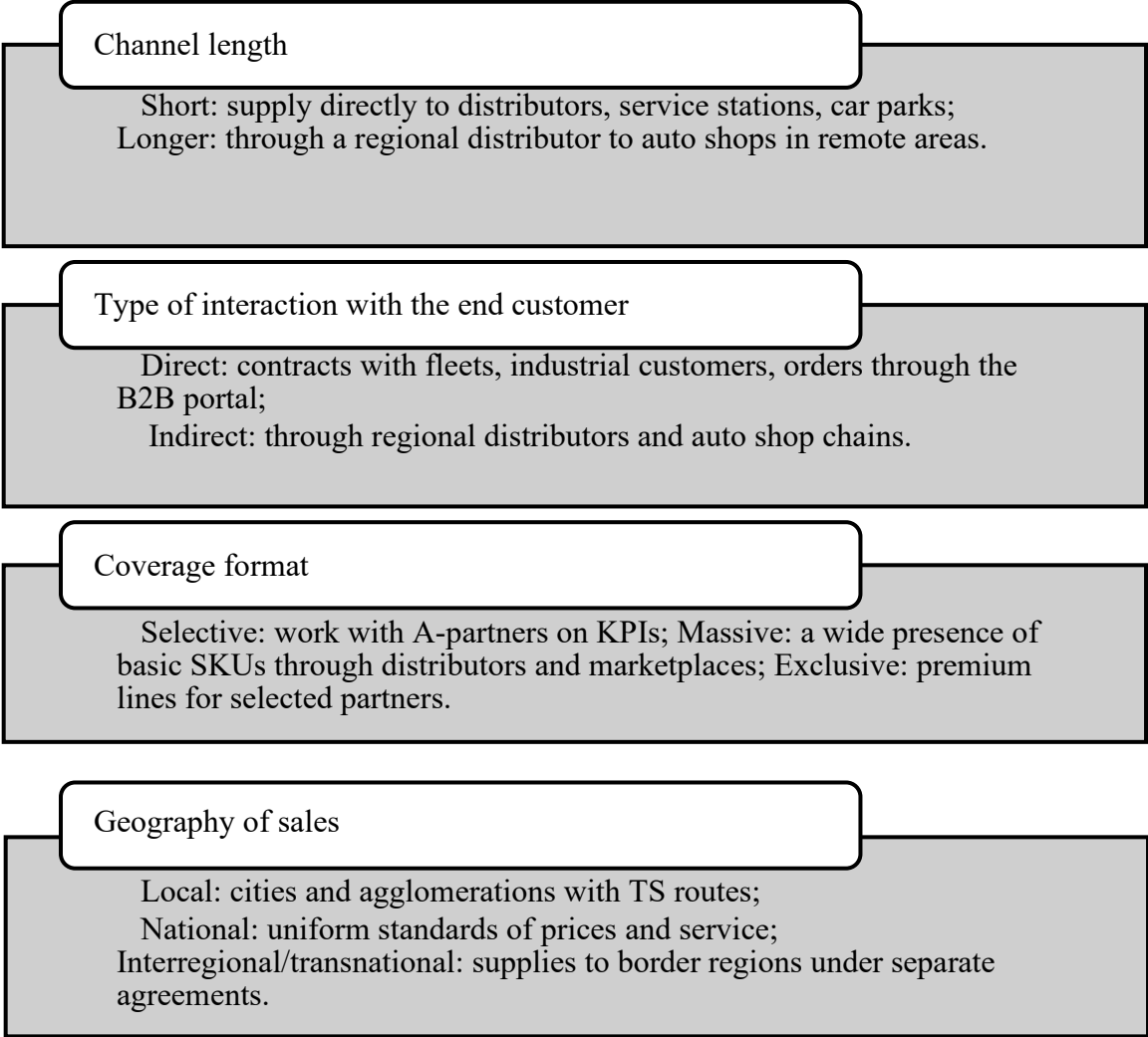


Fig. 2.12 Types of distribution in the marketing strategy of LLC "Don-Terminal"

Source: constructed by the author based on [37]

The strategic marketing policy is the functional “framework” of the entire strategic plan: it is it that sets what value, to whom, through which channels and with what economy the enterprise delivers. The quality of this policy is determined by the consistency of four things: the choice of target segments, the configuration of distribution channels, pricing rules and operational service

standards. For SMEs this is critical, because resources are limited, and a mistake in the choice of channel or segment quickly “eats” the margin.

The case study based on the example of Don Terminal showed that the combination of short channels for priority segments and selective coverage in regions, reinforced by digital tools (B2B application, CRM/BI, merchandising standards), provides a double benefit: managed revenue growth and measurable cost savings. The solution works thanks to data discipline, contractual KPI/SLA with partners, and regular monitoring of results. For SMEs with a similar profile, this confirms that even moderate investments in digital distribution can quickly pay off, provided that the right channel strategy and clear rules for working with partners are in place.

Recommendations for small and medium-sized businesses:

Focus on segments, not tools. A marketing strategy for SMEs should start with prioritizing target segments and their expected value. In practice, this means identifying customer profiles, their supplier selection criteria, price and service sensitivity, and only then selecting channels and tactics. The example of Don Terminal illustrates that clearly defining priority segments (service stations, fleets, regional distributors, industrial consumers, online) allows you to create a relevant value proposition and avoid wasting resources.

Differentiation of the length of the sales channel. Short channels provide better service control, higher speed and predictability of order fulfillment; longer channels are appropriate where geographical coverage and local presence of the partner are crucial. For SMEs, this means combining direct relationships in priority segments with selective work through distributors in peripheral regions. In the case of Don-Terminal, this combination provides a balance between service speed and coverage.

Negotiated KPIs and service levels. Formalizing expected results in contracts with counterparties reduces opportunistic behavior and aligns channel standards. It is recommended to fix indicators of full and timely delivery, order

accuracy, compliance with merchandising standards, as well as the cycle of mutual settlements. In combination with the mechanics of bonuses and sanctions, this creates a transparent system of incentives and increases partner discipline.

Digitalization according to the principle of minimum viable solution.

Given the resource constraints of SMEs, the digitalization of sales should proceed in stages: first - B2B orders, unified nomenclature and customer directories, basic dashboards; then - integrations with ERP/CRM/WMS, merchandising standards with photo fixation, geoanalytics of routes. The Don Terminal case shows that such a sequence ensures rapid verification of the effect by the pilot and controlled scaling.

Aligning channels with product, price, and promotion. Channel strategy loses effectiveness without synchronization with product policy, pricing rules and promotional activities. It is advisable for SMEs to establish uniform principles of pricing and discounts, calculation standards, promotional calendar taking into account seasonality and channel capacity. In practice, this minimizes channel conflicts and increases service reproducibility.

Working capital management as part of marketing. Credit policies, target inventory levels, and settlement rules directly affect a channel's ability to generate margins. Therefore, they should be considered not only as financial and logistical decisions, but also as elements of a marketing strategy that determine the stability of service and the availability of the assortment for target segments.

Regular strategy review cycle. Adaptability is ensured by systematic monitoring of key indicators (coverage, channel margin, service and merchandising standards, partner satisfaction) and quarterly adjustments to channel configuration and tactics. Such a cycle allows for timely response to changes in demand, seasonality, and the dynamics of the competitive environment.

The consistent application of the above principles forms a sustainable logic of “segments – channels – service – economy” and creates the basis for long-term

growth of SMEs. The example of “Don-Terminal” serves as an empirical illustration of how gradual digitalization and contractual mechanisms of channel discipline transform marketing from a supporting function to a key tool for strategic development.

The section systematizes approaches to strategic management of SMEs and conducts an applied analysis on the case of a lubricant distribution company. It is shown that the organizational and economic characteristics of the enterprise, its financial results and the maturity of management processes directly determine the choice of strategic priorities and the configuration of sales channels. Diagnostics of strategic management revealed typical problems of SMEs: data fragmentation, director-centricity of decisions, uneven coverage of regions and variability of service standards in partner channels. A package of changes is proposed, combining structural measures (RACI, KPI/SLA with partners) and digital tools (B2B orders, integration with ERP/CRM/WMS, analytical dashboards) aimed at improving sales manageability and data quality.

The business case demonstrates that the phased digitalization of distribution based on the minimum viable solution principle can provide a combination of revenue growth and measurable cost savings; in the example given, the expected annual net effect significantly exceeds the first year’s investment. The marketing strategy, considered as a functional component of the strategic plan, should be built around clear segments, an agreed channel mix, a transparent pricing architecture and formalized service standards. For SMEs, it is recommended to implement a regular cycle of strategy review based on performance indicators (coverage, OTIF, order accuracy, channel margin, partner satisfaction) and adjust the channel configuration taking into account seasonality and regional characteristics. Together, this forms the basis of a sustainable competitive advantage and aligns operational decisions with the long-term development goals of the enterprise.

CHAPTER 3. BUSINESS PROCESS MANAGEMENT AS A TOOL FOR IMPROVING THE EFFICIENCY OF ENTERPRISES

3.1. Essence, classification and concepts of business process management

The concept of "business process" belongs to the basic categories of modern management theory and reflects a holistic vision of the enterprise's activities as an orderly set of interconnected actions aimed at creating consumer value. In the literature, it is interpreted through various methodological optics - from engineering and technological to economic and organizational, which allows combining the analysis of resource transformation with issues of coordination, responsibility and measurability of results.

In a broad sense, a business process is interpreted as a structured sequence of actions within a certain type of activity throughout its life cycle [14]. This approach emphasizes the transformation of input resources into an output product with defined parameters of quality and utility for the end user. Developing this logic, the emphasis is placed on the systematicity, continuity and manageability of processes: a business process appears as a holistic system of interconnected operations that creates added value and is subordinated to achieving a specific goal, ensuring increased efficiency and productivity of the organization as a whole [21]. Important attributes here are the presence of a process owner, clearly defined start and end boundaries, as well as a set of performance metrics.

The logical completeness of the business process is emphasized separately: it is a complex of interdependent actions with a defined start and end state, which makes it possible to control both intermediate and final results [7]. In the context of digitalization, any activity based on digital technologies and aimed at increasing efficiency is considered a process suitable for standardization,

measurement and further optimization. Digital tools, in this interpretation, not only support the execution of operations, but also set a new quality of manageability thanks to data in a mode close to real time.

In the service sector, a business process is described as a set of interrelated tasks with clearly defined inputs and outputs, the result of which is the provision of a service with guaranteed characteristics [15]. For operational decomposition, it is advisable to distinguish between management, main (operational) and support processes. This classification reflects the multi-level structure of the process approach and serves as the basis for building a system of indicators consistent with the goals of the enterprise, from service quality to resource productivity and financial results.

It is advisable to consider a business process as a controlled sequence of interrelated actions that transforms input resources (material, informational, financial) into a result with a certain consumer value and quality parameters. Dykha V. V., Gulchuk N. V. and Dykha M. V. emphasize that the process begins with receiving input data and ends with creating a product or transferring the results needed by the client; thereby, the boundaries of the process and management responsibility are fixed [10].

In the approach of Dyachkov D. V., Potapyuk I. P., Kovtunovich G. P. and Kostenko O. M., two complementary perspectives are distinguished: technical and economic [19]. The technical one is aimed at standardization, regulation and automation of operations; the economic one is aimed at achieving business goals formalized in quantitative indicators that serve as optimization criteria (costs, cycle time, quality, marginal result).

Garkavy I. I. emphasizes the systematic nature of business processes and the role of the “process owner” as an entity responsible for the result and resources within the limits of the set goals; consecutive business operations are integrated into a holistic circuit of transforming inputs into outputs [8]. Summarizing the approaches, Aref'yev S. A. and Potseluyko V. A. distinguish three constitutive elements of the process: (1) types of activities, (2) their logical-temporal sequence, (3) a set of functions necessary to achieve the planned result [5]. The authors also emphasize the heterogeneity of processes in terms of their role in creating value and link effective process management with the adaptability of the organization, increasing productivity and service quality.

In the future, a business process will be understood as a measurable and manageable system of interconnected actions with clearly defined boundaries, roles, resources, and performance metrics, aimed at creating value for the consumer and supporting the achievement of the strategic goals of the enterprise. In the context of digital transformation, such a system integrates automation, data management, and analytics tools in a mode close to real time, which necessitates the need for updated approaches to classifying, managing, and evaluating process performance.

Within the process approach, the activities of the enterprise are considered as a system of interconnected business processes focused on creating value for the customer. Each process has clear boundaries, roles, inputs and outputs, resources, management mechanisms and measurable results. For further analysis, we adopt a standard business process structure that includes key elements and relationships between them, sufficient for modeling, performance evaluation and improvement.

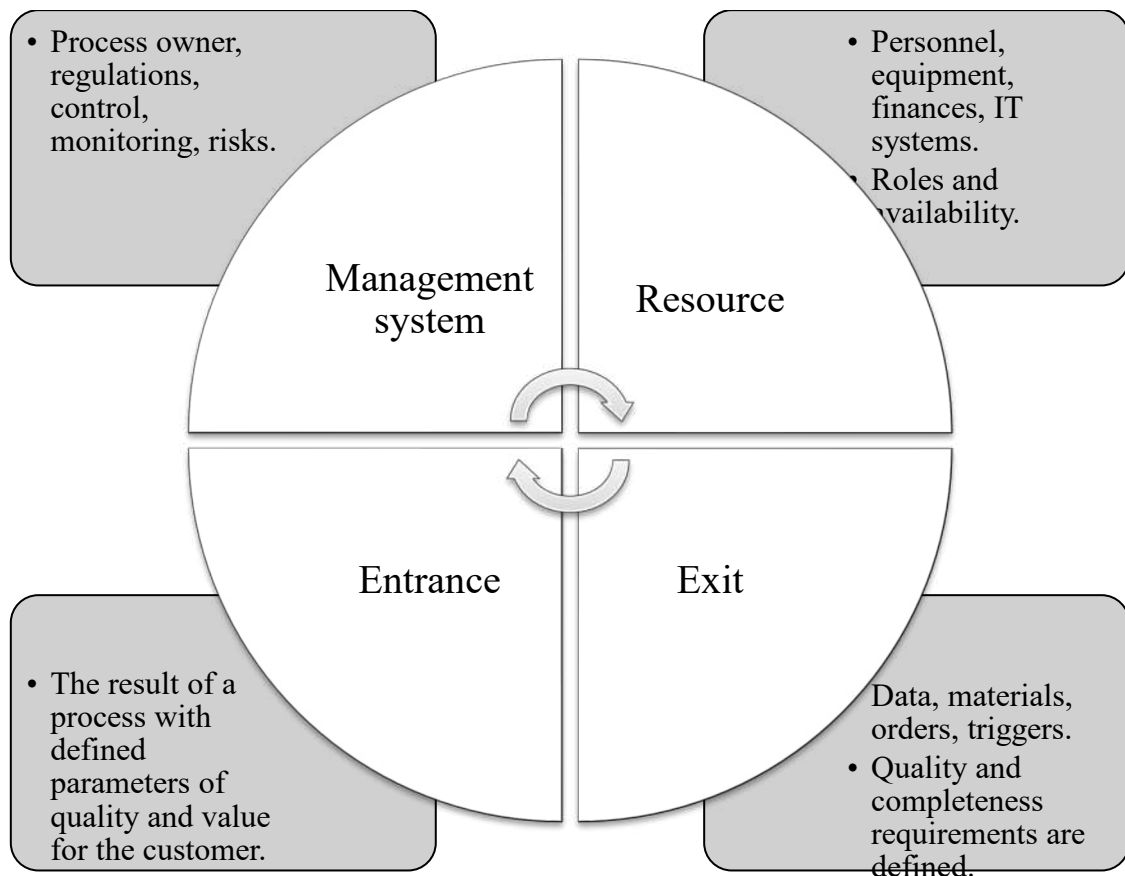


Fig. 3. 1. Key elements of the business process

Source: constructed by the author based on [20]

An essential condition for process-oriented management is the establishment of a “process owner” – an official or a specific group responsible for the state of the process, compliance with regulations, achievement of targets and initiation of improvements [18]. Such institutionalization of responsibility eliminates the dispersion of functions, reduces transaction costs of coordination between departments and ensures the efficiency of corrective actions.

As shown in Fig. 3.1, the structure of any process is usefully described in terms of four interrelated elements: input, resources, control system, and output. Input is not treated as a passive set of data or materials, but as a controlled “port” with clear requirements for completeness, quality, and timeliness. These parameters are fixed in acceptance procedures and, if necessary, in contractual

service levels with internal or external suppliers. Violation of input requirements statistically increases the likelihood of rework and delays at subsequent stages, so input quality control is a leading indicator of process stability.

Resources should be considered as a portfolio of capabilities: human (staff, competencies, role matrices), material and technical and information resources, as well as budget limits [20]. Each unit of resource has a cost and throughput, which allows quantitatively modeling “bottlenecks”, justifying investments (automation, training, equipment modernization) and comparing alternatives according to the expected effect on cycle time, cost and quality.

The management system combines regulations, roles and metrics: process owner and RACI matrix, work performance standards, performance and efficiency indicators (KPI/SLA), compliance monitoring and auditing, risk management, corrective and preventive action procedures. Its work should be organized in a continuous PDCA cycle: change planning, execution, data-based verification of results, improvement (CAPA). This ensures not one-time, but cumulative improvements.

The output is recorded as a contracted result with defined quality and value parameters for an internal or external customer: a finished product, service, document, management decision or intermediate result for the next process. The output is assessed based on compliance with requirements, deadlines, defect level and recipient satisfaction; for supply operations – additionally based on OTIF-type indicators. The key requirement is traceability: the connection of the obtained result with specific operations and resources used, which opens up the possibility of cause-and-effect analysis and financial attribution of effects.

The business process of an enterprise in the field of trade should be defined as an orderly sequence of analytical, organizational and trade-technological actions that transform input resources (planning data, demand forecast, infrastructure training, personnel support) into a result with a certain market value for the customer. At the input, requirements for the completeness, quality and

timeliness of data and materials are recorded; in the resource part - personnel competence, material and technical base, budget limits, IT systems; in the management block - regulations, roles, performance and efficiency indicators, monitoring and corrective action mechanisms; at the output - a product, service or management solution with guaranteed quality parameters and utility for the consumer. The controlling function performs an integration role between management decisions and resources: it provides a comparison of "plan - fact", information support for responsible persons, timely detection of deviations and preparation of proposals for adjustments within the PDCA cycle.

Business process classification serves as a tool for streamlining activities and building a system of indicators, planning resources and prioritizing improvements. It provides a multidimensional view of the company's operations, allows you to identify "bottlenecks", determine areas of overlap of responsibilities, separate processes for automation and those that require enhanced compliance control. It is advisable to use classification features that cover time, organizational, functional, structural, communication, risk and hierarchical dimensions of activity (Fig. 3.2).

Three groups of processes are distinguished based on time.

- Continuous – performed on an ongoing basis and ensure the stability of operations (customer service, accounting, replenishment of stocks, support of IT systems). For them, the key metrics are stability, throughput, failure/defect rate.
- Periodic – have fixed execution intervals (preparation of financial statements, internal audit, review of product and supplier directories, planning of seasonal promotions). Key indicators – timeliness, compliance with standards, completeness of data.
- One-off (project) – focused on a unique result within a specified time and resource framework (implementation of digital solutions, redesign of the distribution network, launch of experimental product

lines). Success criteria – achievement of goals within budget and deadlines, validated effects for further institutionalization in regular activities.

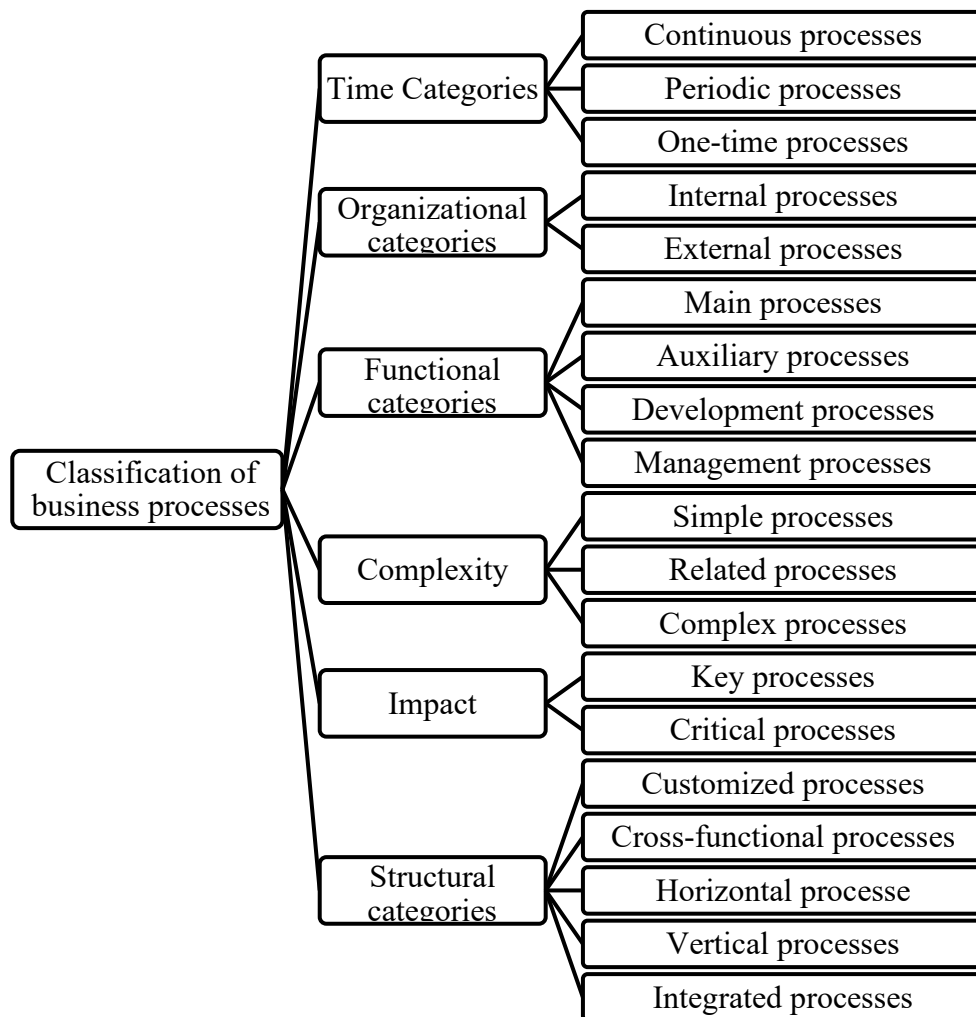


Fig. 3. 2. Classification of business processes

Source: constructed by the author based on [16]

Given the nature of interaction with the organizational environment, business processes are divided into internal and external. Internal processes are performed within the enterprise and ensure the functioning of the operating system: personnel management, accounting, maintenance, inventory management, internal logistics, etc. Their boundaries are determined by internal regulations, access to resources and internal SLAs; control is carried out by

indicators of stability, throughput, costs and quality. External processes involve direct interaction with counterparties, consumers, suppliers, regulators and other stakeholders. For them, transparency of cooperation terms, supply chain risk management, compliance with contractual and regulatory requirements, as well as disclosure of non-financial information (ESG indicators) are critical, which determines specific requirements for communications and control [16]. A clear assignment of a process to an internal or external circuit is a prerequisite for the correct choice of metrics (operational and compliance indicators), communication channels and responsibility.

By functional purpose, it is advisable to distinguish four groups of processes: main, auxiliary, developmental and managerial.

- The main (value-creating) directly form market value: production/service provision, sales, after-sales service. Typical metrics are cycle time, quality/defects, order fulfillment in full and on time (OTIF), contribution margin.
- Supporting functions ensure the implementation of the main ones: IT support, technical maintenance, procurement, internal logistics, administrative functions. They are evaluated by the availability of services, response time, cost of support, and compliance with standards.
- Development/innovation is aimed at changing system parameters: R&D, digital transformation, redesign of processes and sales networks, development of new products/markets. For them, project goals, deadlines and budgets are determined; effectiveness is

recorded through achieved changes in productivity, quality or costs after implementation.

- Managerial coordinates the system: strategic and tactical planning, budgeting, control, performance analysis, risk management. Key indicators are the achievement of goals (OKR/KPI), timeliness and validity of management decisions, compliance with policies and regulations [9].

The classification of business processes by structural complexity covers three levels: simple, linked and complex (macroprocesses). Simple processes are performed within the same division, have a small number of operations and are regulated by standard instructions; their performance is usually controlled through cycle time and performance quality indicators. Linked processes form a sequential logic with the participation of several performers and require coordinated inputs/outputs between functions; for them it is advisable to use modeling notations (BPMN/IDEF0), interfunctional SLAs and RACI matrices. Complex processes integrate research, production-logistics and communication circuits, are characterized by increased variability and are managed at the process architecture level with the distribution of roles of "owners" of subprocesses and stage-by-stage control.

Key and critical processes are distinguished by the degree of impact on the final result. Key processes directly form competitive advantage and market value, therefore they are monitored by marginal contribution, full and on-time order fulfillment, cycle time and defect rate. Critical processes are associated with an increased risk of financial, legal or reputational losses; risk maps, scenario testing, recovery mechanisms and indicators such as incident frequency, recovery time and compliance with regulatory requirements are introduced for them.

The structural dimension of interaction involves the division into individual, cross-functional, horizontal, vertical and integrated processes.

Individual processes focus on the actions of one role and are guided by the standards of the operation and the performance of the performer. Cross-functional processes require coordination between departments and require clear interfaces of responsibility. Horizontal processes are implemented at one level of management and depend on the synchronization of plans and uniformity of loading. Vertical processes combine the strategic, tactical and operational levels through cascading goals and feedback. Integrated processes rely on the end-to-end data flow in ERP/MDM/CRM systems, which imposes requirements for unified directories, data integrity and version control.

Functional classification clarifies the role of processes in value creation. Core processes generate revenue through production or service provision and are driven by quality standards, capacity planning, and cost control. Support processes provide resource support to core processes and are measured by service availability, response time, and support cost. Development processes change system parameters through R&D, digitalization, or redesign; their effectiveness is measured by the improvements in productivity, quality, or costs achieved after implementation. Management processes coordinate the system through planning, budgeting, control, and risk management; they are critical to the validity and timeliness of decisions and the achievement of agreed-upon goals.

According to the hierarchical level of management, strategic, tactical and operational processes are distinguished. Strategic processes set long-term development guidelines and resource allocation rules; tactical processes provide medium-term planning and resource balancing; operational processes constitute the daily execution of orders and service. Aligning these levels with the above-mentioned classification dimensions creates the basis for assigning owners, establishing relevant metrics and building transparent interfaces between functions.

Business process classification is a practical mechanism for building a managed system of activities. It increases transparency, facilitates the

identification of "bottlenecks", reduces time and resource consumption, ensures compliance with quality standards and compliance, and provides a basis for digital modeling, automation, and adaptation to external challenges.

Business process management (BPM) systems are considered as a strategic approach to the organization of the enterprise, the focus of which is modeling, measuring and purposeful improvement of end-to-end processes that create consumer value. Unlike functionally oriented approaches, BPM focuses not on the structure of departments, but on the effectiveness and coherence of cross-functional chains, relying on data, formalized roles of responsibility and a cycle of continuous improvements. For further analysis, we use the process cycle, which provides a full loop from process identification to measuring effects and adjusting decisions.

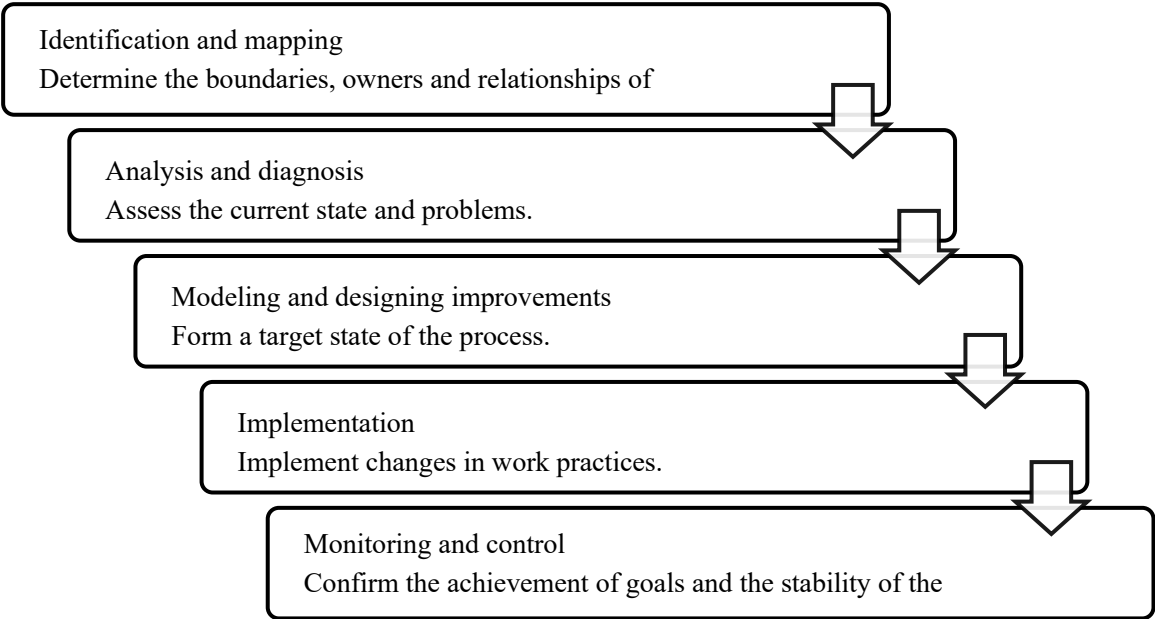


Fig. 3. 3. Business process management cycle

Source: constructed by the author based on[3]

In this study, the BPM approach is viewed as a holistic, managed system of continuous improvement, in which each phase has defined goals, artifacts, indicators, and responsibilities. Cyclicity is ensured by returning to the

analytical phase after implementing changes, which supports the adaptation of processes to demand fluctuations, technological updates, and regulatory requirements, and aligns operational activities with the strategic guidelines of the enterprise.

The initial phase is the identification and documentation of business processes. At this stage, process boundaries are established, owners and roles of participants are fixed, inputs and outputs, data quality requirements and resource provision are described. The result is a model of the current state (“as-is”), which reflects the logic of operations, decision points and connections with related processes. In parallel, data sources and validation procedures are determined, which creates an information basis for further assessment.

The analytical phase is aimed at quantitative diagnostics of effectiveness and efficiency. Measurements are made of cycle time, process cost, defect level, fulfillment of obligations by terms and completeness, service stability, as well as identification of risks of non-compliance. The obtained values are compared with target KPI/SLA levels and, if available, with industry standards. Special attention is paid to the quality of input data, since deviations at the input have a cumulative effect in subsequent links. Based on the analytics, requirements for the target state of the process are formed.

Designing improvements involves building a "to-be" model with a specification of the sequence of actions, roles, regulations and the use of IT tools. Formal notations (BPMN, IDEF0) are used to unify the description, which ensures unambiguous interpretation of logic and control points. Each proposed solution is accompanied by a business case with a forecast of effects (cycle reduction, cost reduction, quality improvement, increased customer satisfaction), risk assessment and a risk management plan.

The implementation phase implements the transition from model to practice. Regulations are updated, information systems are configured, personnel training is conducted, pilot launches are carried out with subsequent scaling.

Change management is ensured by a calendar, budget, defined acceptance criteria and communication support for users. Achieving the planned results is confirmed at the monitoring and control stage, where a hierarchy of indicators is established (operational KPIs, service indicators, data quality metrics), regular information collection and verification is organized, and compliance audits are conducted.

In case of deviations, the corrective and preventive action loop is activated: root cause analysis is performed, CAPA plans are formed and implemented, regulations and training materials are updated, the achieved effect is consolidated in standard operating procedures. Completing this step creates an updated database for the next analysis cycle, ensuring the functioning of PDCA at a higher level of process maturity and supporting sustainable improvement in time, quality, costs and customer satisfaction indicators.

Business Process Management Systems (BPMS) are the instrumental foundation of the Business Process Management discipline, which provides an end-to-end view of operational activities, their modeling, measurement and targeted improvement. In Gartner's interpretation, BPM is a discipline that uses methods to discover, model, analyze, measure, improve and optimize processes within which the interactions of people, systems, information and resources are coordinated to achieve business goals [3]. In this study, BPMS is considered as a set of agreed modules that support the full life cycle of processes - from the description of "as-is" and design of "to-be" to implementation, monitoring and corrective actions.

Process repository. A centralized repository of models, regulations, policies, and work instructions that provides versioning, access control, and consistency of references (roles, events, I/O). Used as a single "source of truth" for process owners and auditing.

Modeling tools. Support for formal notations (primarily BPMN, also IDEF0) for unambiguous description of logic, interfaces between departments, control points and exceptional scenarios. Ensures "as-is"/"to-be" comparability

and transfer of models into execution.

Business Rules Management (BRM/BRMS). Separation of decision-making rules from application code: request routing, data validation, task prioritization, discount/fine accrual, anti-corruption/compliance restrictions. Allows you to quickly change the behavior of the process without releasing IT systems.

Integration layer (API/ESB/connectors). Connects BPMS to ERP/CRM/WMS, payment gateways, DWH/BI and mobile applications. Provides single directories (MDM), data integrity and transactional consistency across end-to-end processes.

User portal (worklist/inbox). Personalized task queues, SLA timers, escalations, calendars, and feedback channels. Support for mobile field workers and transparency of resource loading.

Monitoring and reporting (BAM/BI). Streamlined metrics for cycle time, queues, percent complete, OTIF/On-Time, defects; dashboards for process owners and management; early warning of deviations. Drill-down support and cost correlation.

Data quality management. Profiling, validation and deduplication of data at the input; retention and traceability policies. Reduction of “defects at the input” that have a cumulative effect at subsequent stages.

Simulation and "what-if". Assessing "to-be" options before implementation: queues, throughput, impact of rule/resource changes on KPIs and costs. Basis for investment decisions in automation or capacity expansion.

Automation orchestration. Manage the execution of RPA bots, microservices, and scripts as part of a process; align human and machine steps, log, and control exceptions.

Security and compliance. Roles and authorities, audit logs, evidence retention policies, support for industry and regulatory standards (access, privacy, immutability of events).

These components together support a closed BPM cycle (identification - analysis - design - implementation - monitoring - corrective actions), ensure traceability of solutions, reproducibility of service and the possibility of quantitative justification of changes in terms of time, quality, costs and customer satisfaction. This creates an analytical and organizational basis for integrating a process approach into the strategic and investment management of small, medium and agricultural businesses.

Modern BPM systems increasingly integrate low-code/no-code technologies to simplify configuration and accelerate the implementation of new processes without involving developers. Case management tools are also actively used to manage unpredictable or poorly structured processes, as well as process mining technologies that allow automatically analyzing log files to identify the real progress of process execution. The implementation of BPMS allows enterprises not only to document processes, but also to automate their implementation in those parts where it is technically feasible, which leads to cost reduction, acceleration of application processing and increased accuracy of operations.

Table 3.1

**Comparative characteristics of business process management systems
for small, medium and large enterprises**

Criterion	Small and medium-sized enterprises (SMEs)	Large enterprises / holdings
1	2	3
The strategic goal of automation	Quickly increase the manageability of end-to-end sales, procurement, and service processes; transparency and execution discipline; fast ROI.	Unify and scale cross-functional and cross-branch processes; data and control standards; portfolio change management.

Continuation of table 3.1

1	2	3
Architecture and deployment	Cloud or hybrid; easy horizontal scaling without complex DevOps; modularity “start small”.	Hybrid/on-prem with clustering; microservices, data buses, MDM; integration with enterprise architecture.
Integrations and data	Ready-made connectors to ERP/CRM/WMS; basic data validation mechanisms; event logging for BI.	ESB/API layer, two-way integrations with core systems, DWH/BAM; data quality and traceability policies at the group level.
Governance and compliance	RACI for process "owners"; KPI/SLA; basic auditing and access control; minimally sufficient policies.	Full risk management and compliance frameworks (SoD, captive logs, evidence retention policies); auditing compliance with standards/regulatory requirements.
Team and TCO (total cost of ownership)	Small cross-functional team (BPM analyst + administrator + developer/low-code); moderate TCO; fast releases.	Dedicated roles (architect, domain owners, DevSecOps, platform administrators); higher TCO, but better scalability and reliability.

Source: constructed by the author based on[31]

Modern BPMS should be considered through the prism of the strategic requirements of the enterprise and full support of the life cycle of processes. For small and medium-sized businesses (including Don-Terminal), a rational class of solutions that combines formal modeling (BPMN/DMN), orchestration of human and service steps, ready-made integrations with ERP/WMS/CRM and transparent KPI monitoring at a moderate TCO is rational. This group includes, first of all, Camunda Platform (open-core, scalable orchestration, clear separation of "as-is / to-be", DMN-rules) and Bonita BPM (full cycle "model-execution-monitoring" with built-in forms and connectors). For fast self-service office scenarios, it is advisable to use Microsoft Power Platform as a low-code add-on (approval, notifications, simple integrations), without turning it into the core of end-to-end orchestration. For large and regulated organizations, IBM Business Automation

Workflow or Camunda in the corporate edition are appropriate - subject to compliance, clustering, and portfolio change management requirements.

In the context of "Don-Terminal", the basic BPMS architecture provides: a centralized repository of processes with versioning and RACI; modeling tools in BPMN/DMN notation for "as-is" description and "to-be" design; execution orchestration with support for long transactions and SLA; integration layer (API/connectors) for communication with ERP, WMS, CRM, payment services and mobile applications; monitoring/BAM with real-time dashboards; rule management (DMN/BRMS), which allows changing logic without code releases. This configuration provides end-to-end manageability of key chains: order acceptance, picking/shipping, transport logistics, reverse logistics, work with complaints.

A typical implementation scenario for Don-Terminal includes: formation of a process register and interaction map; modeling of "as-is" critical chains (for example, "order - warehousing - delivery - confirmation"), measuring cycle time and defect rates; designing "to-be" with role redistribution, interface standardization, and automation of routine actions; phased implementation with a pilot and scaling; setting KPI/SLA ("order cycle time", "on-time/in-full", "repeat rate"), as well as corrective and preventive actions based on monitoring results. In terms of investment, BPMS creates a measurable effect by reducing cycle time, reducing operating costs, and stabilizing service quality, which is directly consistent with the strategic priorities of digitalization and increasing the efficiency of resource allocation in SMEs and large enterprises.

Business process management systems are a key element of digital transformation of enterprises, especially for small and medium-sized businesses, where limited resources require a quick and measurable effect from investments.

BPMS provides a holistic end-to-end vision of operations, their formalization in BPMN/DMN notations, orchestration of human and service steps, integration with ERP/WMS/CRM, as well as continuous KPI monitoring and corrective action mechanisms. As a result, transparency of execution, discipline of responsibility, manageability of deadlines and costs increase, service quality stabilizes and process resistance to external fluctuations increases.

For SMEs, it is advisable to choose platforms with moderate TCO and a full cycle of “modeling - execution - monitoring”, supporting data standards and simple integrations (such as Camunda/Bonita with possible use of low-code tools for office tasks). For large organizations, the emphasis shifts to clustering, compliance, portfolio change management and deep integration with the corporate architecture.

The management effect of BPMS for SMEs is manifested in three dimensions: first, the cycle time of key chains is reduced (ordering, warehousing, shipping, logistics, complaints); second, the operating cost is reduced due to the elimination of duplication and defects at the input; third, service control is strengthened through KPI/SLA and compliance auditing. Additionally, a single repository of processes and regulations is formed, which simplifies personnel training and knowledge transfer.

The Don Terminal case illustrates an example of application: process register and interaction maps, as-is modeling and to-be design for the order-warehousing-delivery-confirmation chain, phased implementation with pilot and scaling, setting KPIs for order cycle time, on-time/in-full, and repeat request rate, as well as launching a CAPA loop to close deviations. This sequence of solutions ensures rapid hypothesis testing and managed return on investment.

In general, BPMS is not only a technical tool, but also a management technology that integrates modeling, data quality, risk management, and economic impact assessment. Its implementation creates a solid foundation for

investment planning and strategic management of the development of small, medium, and large businesses.

3.2. Problems of business process management in modern conditions

The issues of business process management in Ukraine are of a mixed – internal and external – nature and directly determine the ability of enterprises, especially small and medium-sized ones, to maintain controllability of operations in an unstable environment. Martial law, the rupture of traditional logistics chains, the reformatting of sales markets and personnel losses have increased the requirements for the speed of decision-making and transparency of operations. Under these conditions, the process approach is not just a methodology for increasing efficiency, but a survival tool. However, its practical implementation encounters a number of systemic barriers.

The first barrier is low digital integration. A significant part of companies, especially SMEs, rely on disparate local solutions (accounting, warehouses, CRM), which do not support standard data exchange interfaces and do not provide end-to-end management. As a result, there are duplication of operations, data loss and “manual bridges” between departments. Even where individual blocks are automated, the lack of a common process core does not allow for the synchronization of planning, execution and control, which directly increases the execution cycle and operating costs.

The second barrier is inter-functional disjointedness and methodological heterogeneity. Divisions use different information systems, their own classifiers and indicators, which makes it impossible to aggregate analysis and build a single KPI/SLA system. The lack of a corporate BPM methodology (roles of “process owners”, model versioning rules, data quality requirements) leads to conflicts of responsibility, delays in approvals and a breakdown in feedback.

The third barrier is weak standardization and the lack of a national BPM roadmap. Despite progress in government initiatives on digitalization and interoperability, the private sector remains fragmented: enterprises lack unified requirements for modeling notations, data exchange, audit trails, and evidence retention policies. This complicates inter-firm coordination in supply chains and reduces the comparability of performance across enterprises and industries.

The fourth barrier is personnel and organizational constraints. Most SMEs do not have dedicated process management roles (BPM analyst, architect, process owner), which reduces process initiatives to one-off IT projects without further support. A low data culture (validation, traceability, responsibility for sources) increases the likelihood of defects “at the input”, which accumulate along the chain and undermine confidence in metrics.

The fifth barrier is investment and risk constraints. Demand fluctuations, logistical risks, and limited access to capital force process investments to be postponed, while the lack of quick wins makes initiatives vulnerable to budget cuts. The result is a “digital trap”: without basic process maturity, it is difficult to achieve impact, and without tangible impact, it is difficult to protect the budget.

The cumulative impact of these barriers is manifested in the extension of cycle time, increase in indirect costs, loss of traceability of solutions and decrease in service quality. To overcome them, in the following subsections it is advisable to consider standardization tools (single process repository, BPMN/DMN notations), integration solutions (API layer, directories/MDM), organizational mechanisms (process owners, RACI, data quality policies) and phased implementation scenarios of BPMS with an emphasis on a quick and measurable effect for SMEs.

The human factor and resistance to change remain a systemic obstacle to the implementation of a process approach, particularly in small and medium-sized enterprises. When BPM is positioned as a technical “innovation” rather than as a tool for solving specific operational problems, personnel interpret the

transformation as an additional burden without noticeable benefits. The lack of explanation of the reasons for the changes, unclear expectations for roles and indicators, weak internal communication and underdeveloped feedback practices form passive or open resistance. In hierarchical organizations, where a culture of control prevails, this is complemented by “locking” of information at upper levels of management and low participation of performers in decision-making regarding the processes they perform daily.

Resistance to change is exacerbated by a mismatch of incentives: when the KPIs of employees and department managers are not synchronized with the goals of process transformation, any new regulations are perceived as a risk to personal results. Competency gaps are also added - lack of skills in working with data, formal notations and digital tools. Under such conditions, even a correctly designed "to-be" model does not give an effect due to behavioral barriers: employees return to "manual" practices, and changes are not fixed in the daily routine.

Resource constraints of SMEs transform methodological problems into financial ones. The cost of licenses, the need for infrastructure modernization, training and support costs often exceed the available investment limit, and internal teams do not have the time and tools to build a business case. The lack of regular accounting of benefits and costs at the process level (cycle time, defects, process cost, incident cost) leads to an “intuitive” assessment of ROI, which undermines trust in initiatives and makes it easier to postpone decisions. An additional risk is vendor dependency: choosing platforms without a transparent exit model (model export, open APIs, migration capabilities) creates long-term commitments not supported by projected benefits.

Even with external support from technical assistance programs, barriers remain within the enterprise. The reason is the lack of organizational mechanisms that convert grant or consulting resources into sustainable management practices: a register of processes and their owners, modeling standards (BPMN/DMN),

unified data directories, reporting and audit trail requirements, a cycle of continuous improvements with corrective actions. Without this, software investments quickly degrade into “point” automation without an end-to-end effect.

A combination of several management solutions allows reducing resistance and overcoming resource constraints. First, the transition from declarative communication to engagement: mapping stakeholders, identifying “process owners”, jointly forming KPIs/SLAs and publicly accounting for “quick wins” (reducing cycle time, reducing defects, eliminating duplication). Second, gradual capacity building: short training modules for key roles, “on-the-job” mentoring, standardization of artifacts (process maps, RACI, data quality control checklists). Third, investment discipline: choosing an architecture with moderate TCO (open-core/cloud), phased deployment from critical chains to auxiliary ones, “lightweight” benefit assessment models (time-driven, activity-based), requirements for platform openness (API, model export, directory independence).

The implementation of BPM in Ukrainian realities is taking place under the pressure of external shocks and regulatory turbulence, which increases the cost of management errors and reduces the willingness of enterprises, primarily small and medium-sized ones, to invest in process changes. Frequent adjustments to tax norms, currency fluctuations, war risks and the lack of long-term incentives for digitalization create an environment in which structural transformations are pushed to the background in favor of tactical "maintenance of operations".

Barriers have three dimensions. Institutional – lack of a coherent policy to support innovation management and standardization of methodologies, which complicates coordination in supply chains and comparability of results. Financial – high cost of capital and environmental risks, due to which projects with a longer payback period are inferior to current costs. Informational – low awareness of top management about BPM practices, shortage of process analysts and weak culture of working with data. The cumulative effect is an extension of cycle time,

increased indirect costs, loss of traceability of solutions and deterioration of service.

Despite the limitations, positive dynamics are observed: domestic BPMS solutions are emerging, a professional community is being formed, the advisory infrastructure is expanding, local cases in finance, logistics, telecom, and retail are accumulating. At the same time, the nature of implementations often remains fragmented: “point” automation without a single process repository, standardized notations, and integrated data directories limits the effect to the level of individual departments.

The human factor is decisive. Resistance increases where transformations are communicated as technological innovation without being tied to measurable losses of time, quality and costs; where the roles of process owners are not institutionalized and departmental KPIs are not synchronized with the goals of transformation. Competency gaps (data, notations, digital tools) push for the return of “manual” practices and destroy the sustainability of changes. Additionally, the problem is exacerbated by the use of secondary metrics instead of indicators that directly reflect cycle time, defects, service commitments and cost savings.

Effective BPM deployment requires a systemic logic of actions. For SMEs, critical end-to-end chains with a short payback period, a single process repository, standard notations (BPMN/DMN), basic data quality policies, and phased integration with core accounting systems are priorities. For large enterprises, it is necessary to align the process architecture with portfolio change management, strengthen compliance, and unify group-level guides. In both cases, management participation, cross-functional teams, institutionalized process owner roles, and a hierarchy of indicators tied to time, quality, cost, and customer satisfaction are required.

This approach moves BPM from the plane of a “technical project” to the plane of managed behavior and cost change and creates a practical basis for

investment planning and strategic management of enterprise development. For cases like Don Terminal, this means the ability to scale local improvements to the level of end-to-end process control with a projected payback.

3.3. Identification of key business processes and analysis of the effectiveness of the management system

Identification of key business processes for LLC "Don-Terminal" is carried out according to the principle of end-to-end value chains (from order to payment and from supply to shipment) with fixing of process boundaries, "inputs/outputs", owners and basic performance indicators. The methodological basis is a combination of SIPOC/Value-Stream-Mapping (for a quick flow map), RACI (for distribution of responsibility) and the primary KPI/SLA panel (for further control). The result of the stage is a short register of processes, which is used for further analysis of "as-is", search for "bottlenecks" and design of the target model "to be".

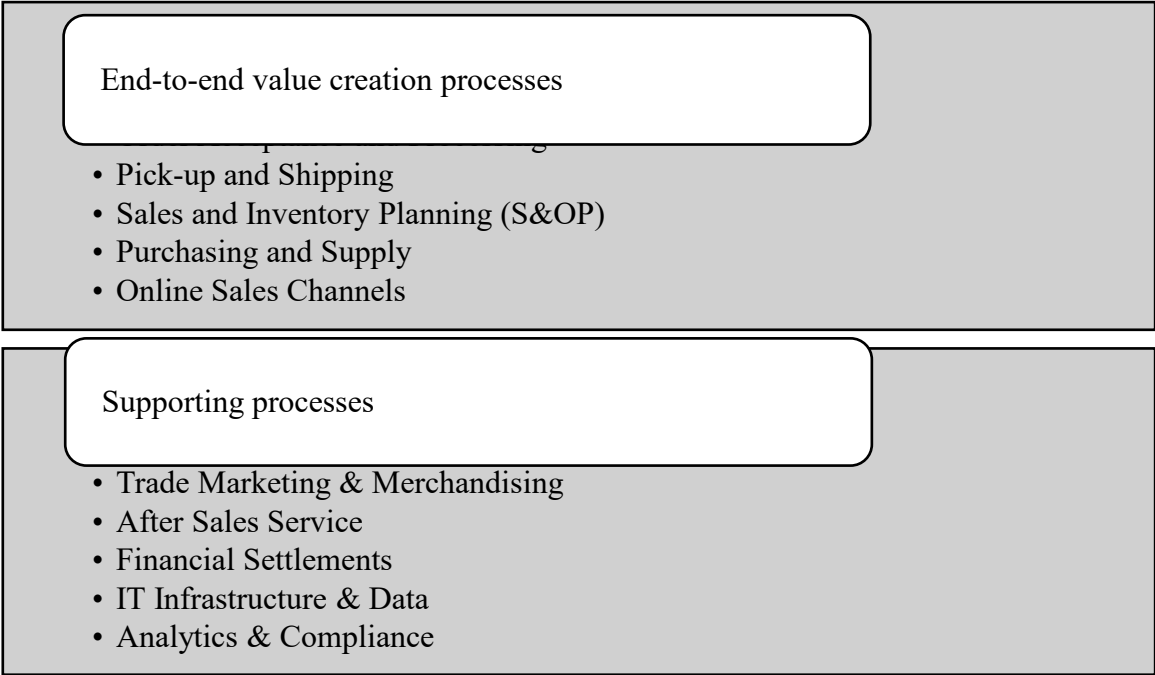


Fig. 3. 4. Main business processes of Don-Terminal LLC

Source: constructed by the author based on [22]

The subprocess “Order Acceptance and Processing” at Don-Terminal LLC is the starting link in the value chain. Its purpose is to correctly record the client’s demand, perform business and risk checks, form orders in the company’s information systems, and initiate further warehouse, logistics, and finance operations. Orders are received via a B2B portal, electronic data exchange, or with the participation of a manager. At the processing stage, details and pricing conditions are checked, credit limit is controlled, and the availability and reservation of goods are confirmed, after which the client receives official confirmation with a unique identifier.

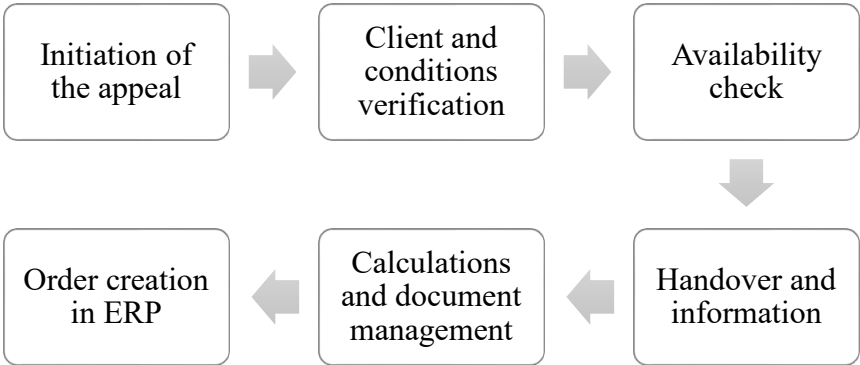


Fig. 3. 5. Order acceptance and processing process

Source: constructed by the author based on [23]

The sorting and logistics processing process at Don-Terminal LLC ensures timely shipments and stable service quality. After confirming orders, the WMS generates tasks for receiving and sorting; the goods are identified by barcodes/SSCC, undergo random quality control, and are then distributed according to sales channels and routes. Sorting tables and conveyor areas are used for wave picking; pallets and boxes are consolidated into shipping batches with binding to transport slots. The final step is to prepare a package of documents and transfer the cargo for loading according to the carrier's schedule or the client's own pickup. This organization of the process minimizes manipulation with the goods, reduces the risk of errors and losses, and increases the OTIF indicator.

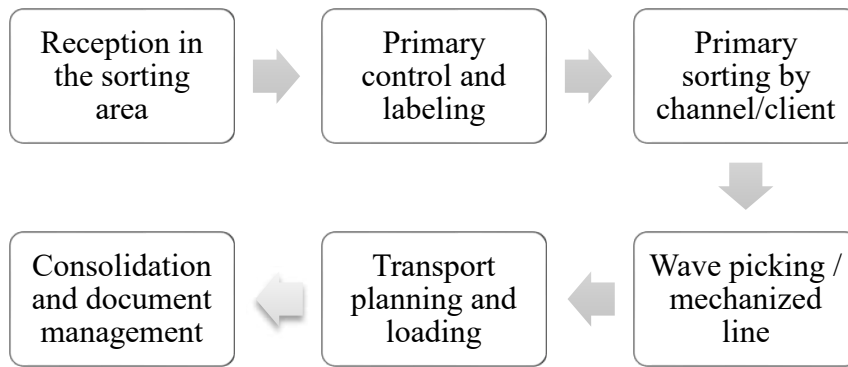


Fig. 3. 6. Sorting and logistics processing process

Source: constructed by the author based on [24]

Post-shipment service completes the value chain and directly affects repeat sales and loyalty levels of B2B customers. At the service stage, the company provides multi-channel communication, registration and classification of requests in CRM, routing of requests to responsible departments (complaints, information requests, financial issues), control of deadlines and providing feedback with suggestions for improving cooperation. Standardized regulations and a single knowledge base reduce incident resolution time and reduce support costs.

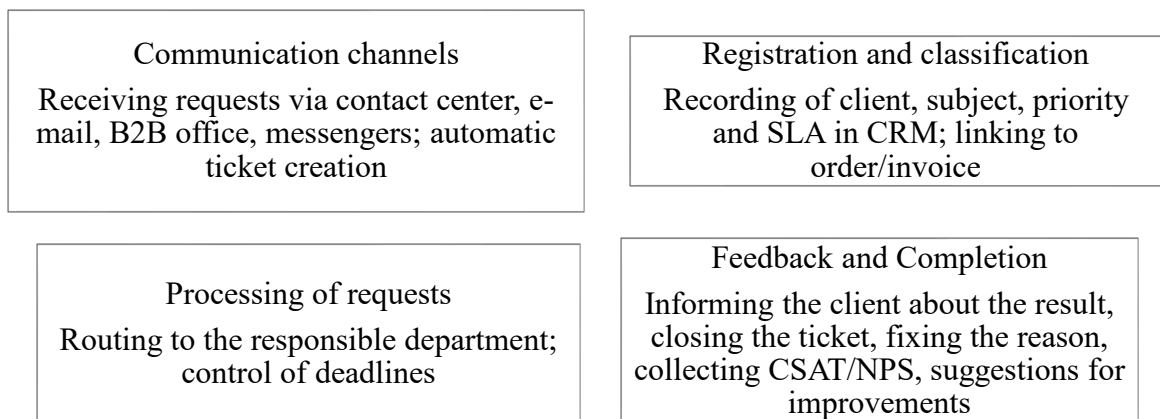


Fig. 3. 7. Key elements of the “Customer Service” business process

Source: constructed by the author based on [26]

E-commerce and fulfillment processes at Don-Terminal LLC support the B2B sales channel and work in conjunction with ERP/WMS and the client

account. API integrations provide automatic order creation, stock reservation, printing of shipping labels and status tracking. The fulfillment zone performs receiving, picking, packing, consolidation and document preparation, as well as manages return procedures; transparency is ensured by SSCC identifiers and photo-fixation.

The financial circuit covers invoicing, credit limit management, payment processing (prepayment, deferral), settlement reconciliation and work with receivables. Data from sales, marketing and finance is consolidated in a single BI dashboard to monitor margin, ROMI and DSO cycle.

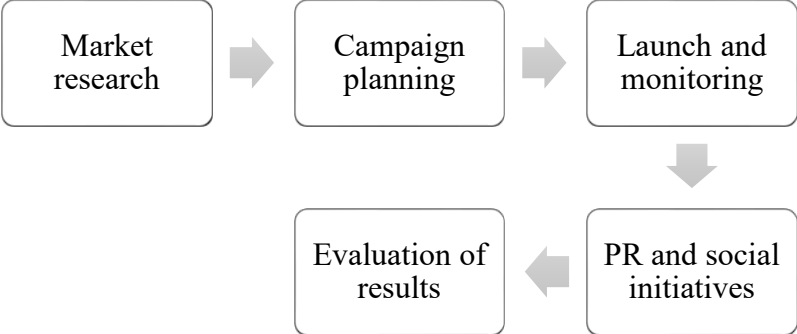


Fig. 3.8. Marketing and brand management business process

Source: constructed by the author based on [25]

Service support integrates a contact center, chatbot, B2B office and corporate messengers. All requests are automatically registered in CRM, classified by topic and priority, and routed to responsible departments with control terms (SLA). Complaints are processed according to a standardized procedure with recording of the cause, solution and feedback to the client; the knowledge base speeds up repetitive responses.

The IT environment includes server and cloud infrastructure, WMS/ERP, client web office and mobile warehouse workers’ workstations. Cybersecurity (encryption, redundancy, incident monitoring) and business continuity are ensured. Automatic identification (barcodes/SSCC, RFID if necessary), scanners

and algorithms for picking and routing optimization reduce order processing cycles and logistics costs.

The procurement and MTZ function supports warehouse and transport infrastructure: packaging materials, consumables, equipment, and a fleet with telematics. Unified product catalogs, agreed SLAs with suppliers, and TCO analytics help reduce costs. Transport modernization and driving style monitoring provide 10–15% fuel savings and lower unplanned downtime.

These processes form the operational advantage of Don-Terminal: higher speed of order processing, stable quality of service, and transparency of interaction with B2B clients.

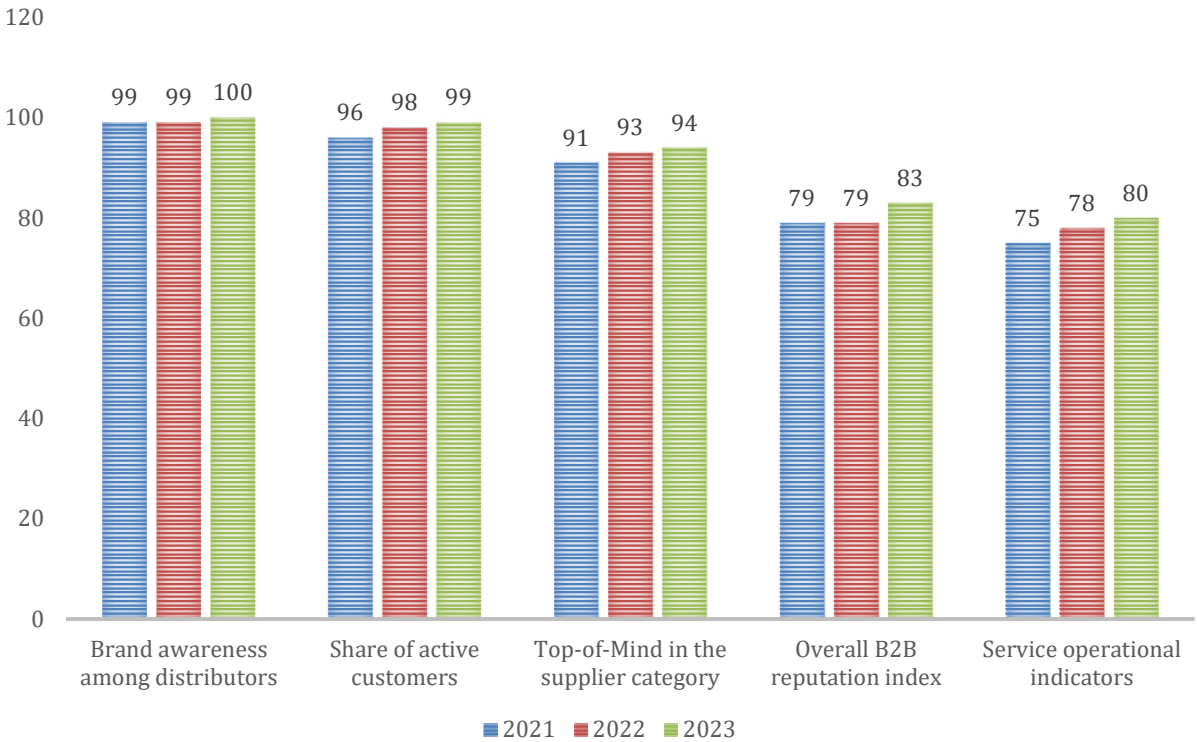


Fig. 3.9. Marketing and brand management performance indicators

Source: constructed by the author based on [8]

The effectiveness of the company's marketing and process solutions is reflected in B2B metrics: brand awareness among buyers/distributors has

stabilized at 99–100%, the Top-of-Mind indicator in the supplier category has increased from 91% to 94%, and operational service indicators have increased from 75% to 80%. At the operational level, the key effect is provided by digital receipt and processing of shipments: the B2B mobile application, web office, and API/EDI channels convert orders into electronic format, reducing paper documents, cycle time, and error rate, while simultaneously relieving office managers and increasing accounting transparency.

Table 3.2

Performance indicators of the sub-process "Receipt and processing of shipments" of LLC "DON-TERMINAL"

Indicator	2021	2022	2023	Deviation 2021/2023, abs.	Deviation 2021/2023, %
Active users of B2B mobile application, thousand people	0,8	1,2	2,4	+1,6	+200,0
Electronic orders via mobile application, thousand pcs.	180	260	410	+230	+127,8
Active users of the web office, thousand people	0,30	0,52	0,90	+0,60	+200,0
Electronic orders via web-office, thousand pcs.	95	140	230	+135	+142,1
Electronic orders via API/EDI, thousand pcs.	320	510	780	+460	+143,8

Source: built by the author

Sorting and logistics processing ensure the rhythm of B2B order fulfillment and the stability of service for network customers. In 2021–2023, the company consistently invested in WMS/TMS, conveyor lines with DWS modules (weighing-scanning-geometry), address storage, cross-docking and scanning of SSCC labels. This made it possible to increase the processing volume, reduce the

“receiving-sorting-ready for shipment” cycle, increase the share of automatically sorted items and reduce labeling errors.

Table 3.3

**Efficiency indicators of sorting and logistics processing of LLC
"DON-TERMINAL"**

Indicator	2021	2022	2023	Deviation 2021/2023, abs.	Deviation 2021/2023, %
Shipments processed, million pcs.	6,8	7,6	9,1	+2,3	+33,8
Average cycle "reception-sorting-readiness for shipment", hours	18	17	15	-3	-16,7
Share of automatically sorted items, %	52	63	78	+26 pp.	-
Number of operating warehouses/cross-docks, units	6	7	8	+2	+33,3
Labeling errors (ppm), units/million items	1200	900	620	-580	-48,3

Source: built by the author

A key indicator of the effectiveness of the sorting and logistics processing process is the number of orders processed: in 2023, the figure reached 9.1 million, which is 33.8% more than in 2021. Growth after the shock of 2022 confirms the restoration of operational stability and the efficiency of internal processes adapted to increased volumes.

E-commerce and financial transactions are supported by integrated payment gateways (LiqPay/WayForPay) and the “DonPay” module. The number of payment transactions (payments, returns, transfers) decreased in 2022 due to

military risks, but recovered in 2023 thanks to API integrations with online stores and business clients.

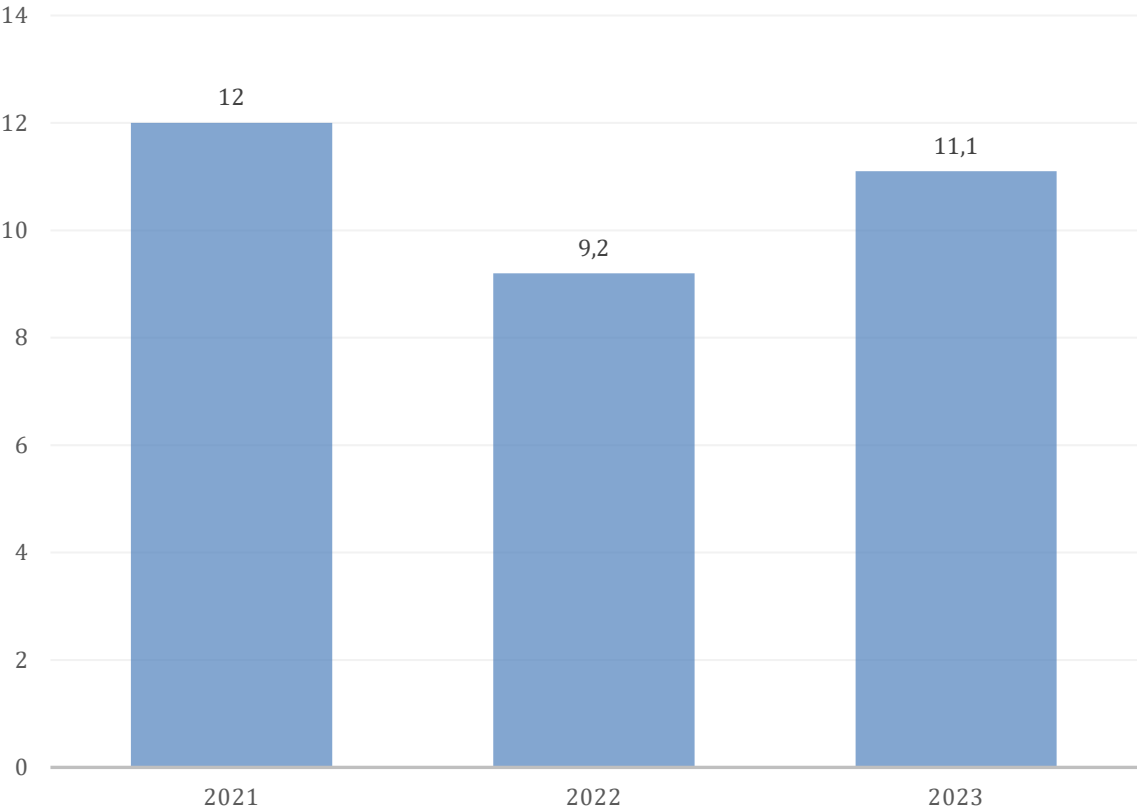
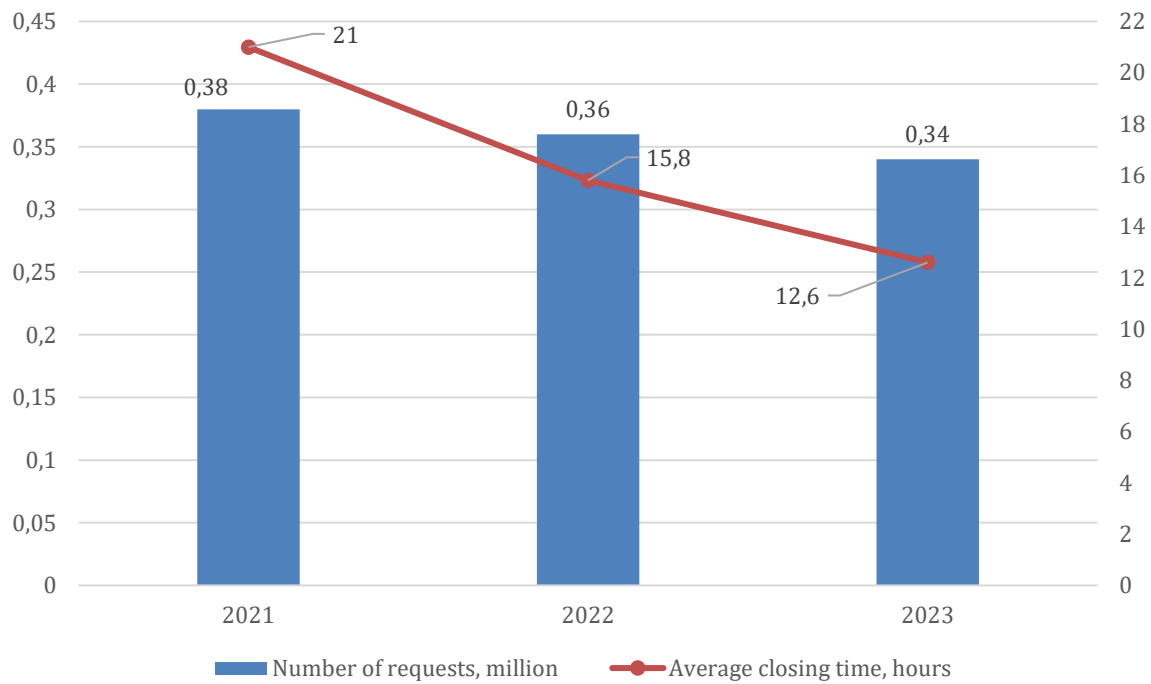


Fig. 3.10. Number of transactions of LLC "DON-TERMINAL", million

Source: constructed by the author based on [10]

Customer support metrics reflect the load on the service infrastructure and the effectiveness of BPM solutions. After implementing omnichannel case management (phone, chatbot, messengers, web office) and escalation rules, the number of contacts gradually decreases, and the average time to close a case is reduced thanks to automated routing and a knowledge base.



**Fig. 3.11. Customer support performance indicators
LLC "DON-TERMINAL"**

Source: constructed by the author based on [12]

Based on the results of monitoring requests, WMS/TMS/1C logs, complaints from networks and distributors, and interviews with operational departments, a group of typical “bottlenecks” of the process loop are outlined in LLC “DON-TERMINAL”. They are directly related to peak loads, data quality, and the level of integration of IT systems, as well as the discipline of implementing standards in the warehouse and in sales channels. (Table 3.4).

Table 3.4

The main problematic aspects in the business process management system of LLC "DON-TERMINAL" and their impact on the activities

Problem	The essence of the problem (key causes)	Impact on the process / KPI	Consequences/risks
1	2	3	4
Overloading of the sorting and forwarding area in peaks	Limited number of ramps and equipment; uneven slots	Delays in assembly and shipment;	OTIF/SLA violations; network fines;

Continuation of table 3.4

1	2	3	4
	suppliers; seasonality of demand	drop in productivity	transport downtime
Errors in orders and invoices	Manual entry, heterogeneous partner templates; lack of strict validations in the B2B office	Re-assembly, document correction, increase in the percentage of returns	Reputational losses; increased operating costs
Fragmented integration of WMS/TMS/1C and mobile B2B	Lack of stable APIs; duplication of input; weak monitoring of integrations	End-to-end tracking gaps; increased order cycle time	Balance discrepancy; risk of erroneous shipments
Damage and incompleteness during transportation	Inconsistent packaging standards; selective control; lack of mandatory photo-recording	Repackaging, claims work, write-off	Direct losses; compensation to distributors/networks
Insufficient control over placement and promotion in channels	Infrequent audits; low discipline of photo reports; different network requirements	Non-fulfillment of planograms; weak promo sell-out	Loss of shelf share; unearned sales
Internal coordination of sales-logistics-finance	Lack of a “single number” forecast; different planning horizons	Misaligned priorities; late inventory adjustments	Overstock/stock out; frozen working capital

Source: built by the author

The company has already digitized individual links (1C/WMS/TMS, mobile B2B for partners, basic CRM, EDI with networks), but the lack of a single integrated BPMS covering the main, auxiliary and development processes leads to data fragmentation, manual operations during peak periods and uneven coordination between sales, logistics and finance. To focus on the priorities for further improvement, a brief SWOT analysis of the enterprise's business process

management system is presented.

SWOT analysis of LLC "DON-TERMINAL" indicates a balanced, but not yet fully realized competitiveness of the enterprise. The strengths include stable recognition among national and regional networks, the presence of direct contracts and proven logistics routes, as well as a shortened "order-shipment" cycle. The enterprise already has elements of digitalization (B2B office, e-document flow with some counterparties, basic analytics of sales and balances), which increases the efficiency of decision-making and transparency of mutual settlements.

At the same time, weaknesses are associated with peak overloads of the warehouse infrastructure, a significant proportion of manual entry of orders and invoices, fragmentation of the IT landscape (separate 1C/WMS/TMS/CRM without a single process core), and insufficient synchronization of sales, logistics, and finance subsystems in real time. This leads to risks of delays, errors, and increased operating costs.

Among the opportunities, the priority ones are the implementation of an integrated BPMS with a single process repository and API-oriented data bus; scaling digital B2B channels and e-commerce; using artificial intelligence tools for demand forecasting, inventory and route optimization; expanding EDI/e-TTN with retail networks; and introducing automated merchandising control.

Threats include increased competition (particularly from private label retailers), military-logistical restrictions and power outages, cyber incidents, regulatory changes in traceability and labeling, and volatility in packaging and raw material supplies. Systematic work with opportunities – primarily through process integration and analytics – can neutralize identified weaknesses and

reduce sensitivity to external risks.

Table 3.5

**SWOT analysis of the business process management system
LLC "DON-TERMINAL"**

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Stable relationships with national/regional networks and distributors; contractual basis. ● Direct deliveries to key networks; flexible routes and slotting; short order-shipment cycle. ● Mobile B2B office for partners; basic sales and balance dashboards. ● Existing merchandising and display standards, network audits. ● Experience in EDI/e-document flow with some counterparties. 	<ul style="list-style-type: none"> ● Lack of a single BPMS; disparate 1C/WMS/TMS/B2B/CRM without full integration. ● Manual entry of part of orders/invoices; data errors, duplication of operations. ● Limited online real-time KPI monitoring (OTIF, order accuracy, returns). ● Uneven hub load during peak periods; bottlenecks on ramps/compilation. ● Low automation of packaging/shipment quality control (partial photo-recording required).
Opportunities	Threats
<ul style="list-style-type: none"> ● Implementation of BPMS with API-oriented integration (single process repository, end-to-end tracking). ● AI demand forecasting and slot/route planning; inventory and fuel cost optimization. ● Expansion of e-commerce/B2B online channels, omnichannel orders (marketplaces). ● Full EDI/e-TTN/e-invoice with networks and regional distributors. ● Automated merchandising (AI photo-control of layout), loyalty programs for B2B. 	<ul style="list-style-type: none"> ● Increased competition (private label chains, aggressive promotions of competitors in the FMCG segment). ● Military-logistical risks: blocking routes, power supply disruptions. ● Regulatory changes (labeling, excise duties, traceability) - additional compliance costs. ● Cyber threats and simple IT infrastructure; data leaks. ● Dependence on individual suppliers of packaging/raw materials; shortage of drivers and pickers.

Source: built by the author

The assessment of process management at DON-TERMINAL indicates the presence of a stable base for further efficiency: the company has a good reputation

in national and regional retail chains, well-established warehouse-retail chains and basic elements of digitalization (e-invoices, B2B office, integration with 1C/WMS and partial EDI). The stability of order fulfillment and control of receivables discipline confirm a sufficient level of manageability of the operational circuit.

At the same time, limitations that hinder scaling have been identified. During peak periods, warehouse and transport overloads occur; a significant proportion of manual order entry and merchandising reports increases the risk of errors and creates unnecessary time costs; the IT landscape is fragmented between 1C, WMS, TMS and CRM without a single process core, and the interaction of sales, marketing, logistics and finance departments is not always synchronized in real time. The lack of formalized “process owners” and centralized BPMS complicates rapid changes and increases the management burden.

The greatest development potential is concentrated in the creation of an integrated BPMS with a single process repository and an API layer for linking WMS, TMS, 1C and CRM; expanding digital channels of interaction with retail through a B2B application, full EDI and e-TTN; introducing tools for demand analytics, inventory and route optimization, as well as SFA inventory control with geo-analytics and photo verification. Such steps correspond to the project economics we have calculated with a short payback period and high return on investment and increase resilience to demand fluctuations.

External risks remain tangible: the strengthening of the role of STM in large networks, logistical and energy disruptions of the war period, traceability and labeling requirements, as well as cyber threats. Their minimization requires the reservation of capacities and routes, the implementation of data security and

backup policies, contractual SLA mechanisms with networks and systematic work on data management. In general, the level of process maturity of "DON-TERMINAL" can be considered average with a clear growth trajectory due to the implementation of BPMS, deepening integrations with retail and the transition to data-based management. This creates the prerequisites for long-term competitive advantage in national and regional distribution channels.

3.4. Identifying problems and "bottlenecks" in business processes

For LLC "DON-TERMINAL", business process optimization focuses on increasing throughput, reducing the share of manual operations, and unifying data between 1C/WMS/TMS systems and the B2B office of partners. In the "reception and processing of shipments" circuit, the priorities are: a full transition to preliminary electronic processing of orders through the B2B application and web office; introduction of mandatory field validations (SKU directories, prices, delivery terms, network code); integration of "smart scales" and barcode/QR code scanners with WMS for automatic reading of parameters and labeling; expansion of non-cash payment channels for partners. This configuration allows you to reduce the operation time at the receiving point from 6–7 to 2–3 minutes per order, reduce the share of errors in invoices by 30–40% of the baseline level, and redistribute the staff load at peaks due to electronic queues and slot planning. The proposed changes ensure the unification of data at the input of the process, stabilize the "order-shipment" cycle, and form the basis for further automation of related stages (picking, shipping, reconciliations with networks), which will be

detailed in the following subsections and summarized in Table 3.6.

Table 3.6

Expected directions for optimizing the process of receiving and processing shipments at DON-TERMINAL LLC

Optimization direction	Offer	Expected effect
Pre-registration through B2B channels	Mandatory creation of an application in the B2B office/EDI with automatic retrieval of directories (SKU, delivery terms, prices, GLN network); slot booking of reception time	Less queues on ramps; – 30–40% manual input; synchronous data for WMS/1C
Automated weighing and parameter recording	Smart scales and barcode/QR code scanners with direct integration into WMS; automatic printing of labels and TTN	Increased accuracy, error elimination; –2–4 min/order; fewer discrepancies during reconciliations
Online payment/prepayment	Connecting card payments/accounts in B2B (Apple Pay/Google Pay, payment links); automatic closing of financial transactions	Reduction of cash flow; acceleration of shipments; transparency of payments
Input data validation	Business rules in B2B: mandatory field validation, duplicates, weight/volume limits, min/max price control	Reduction of missing documents; fewer rollbacks and re-registrations
Electronic queue and acceptance KPI	Electronic check-in tickets, ramp occupancy dashboard; KPIs “time from application to start of acceptance”, “registration time”	Balancing flows during peaks; –20–25% transport downtime; SLA control for partners

Source: built by the author

Sorting and internal logistics processing operations at DON-TERMINAL LLC have peak loads (promotions, new SKU launches, seasonal deliveries to

networks), which increases the risks of queues on ramps, labeling errors and OTIF delays. To increase the throughput of hubs and service stability, it is advisable to combine temporary capacity scaling with digital flow management, automated identification and order prioritization rules. Below are brief proposals and the expected effect in relation to KPIs (Table 3.7).

Table 3.7

**Proposals for optimizing sorting and logistics processing at LLC
"DON-TERMINAL"**

Direction	Short offer	Expected effect / KPI
Capacity scaling	Mobile sorting cells, temporary conveyors, cross-dock buffers	+20–30% throughput; –15–20% overtime hours
Flow management (LMS/WMS)	Wave sorting, auto-slotting, peak prediction	–10–12% lead time; –8–12% internal movement costs
Identification and labeling	RFID/QR gates, on-line scanners, print&apply	–30–40% of operation time; –50–60% of errors; traceability ≥99.5%
Prioritization of orders	Rules for promo/urgent/short-dated, automatic SLA queue	OTIF ≥96%; -30–40% stitching
Ramp Orchestration (YMS)	Slot booking, e-tickets, dock dashboard	–20–25% transport downtime; +10–15% ramp turnover
Quality control/exceptions	Photo capture, quick return and damage scenarios	–25–30% return costs; incident TAT <24 hours

Source: built by the author

To improve the manageability of the “last mile”, it is advisable to shift the emphasis from static logistics of branches to dynamic management of routes and points of delivery. This includes the use of telematics for drivers, expanding the network of self-collection points through partners, prioritizing express orders and

digital confirmation of delivery. Such solutions reduce the burden on the front office, improve the first-attempt delivery and reduce costs (Table 3.8).

Table 3.8

**Suggestions for optimizing the "Delivery" process in
LLC "DON-TERMINAL"**

Direction	Short offer	Expected effect / KPI
Optimization of courier routes	Mobile application with GPS/telematics, auto-routing, dynamic renumbering of stops	-15-20% delivery time; -10-12% fuel costs; FTF (first-time-delivery) +8-12 pp.
Expansion of the network of distribution points	Partner PUDOs: gas stations, pharmacies, shops; modular post offices in shopping malls/business centers	Coverage +15-25%; -18-22% queues in branches; capex per point -40-60% compared to a classic branch
Express and Prioritized SLA	"Express <12 hours" rules in cities; separate slots and microhubs for urgent shipments	OTIF express ≥96%; average lead time -20-30% during peak times
Digital Proof of Delivery (ePOD)	Photo-proof, contactless signature, automatic invoice closing, instant write-off/refund	-50-60% of disputed cases; NPS +5-7 pp; TAT of complaints <24 hours
Returns management	QR label for reverse logistics, scheduled "reverse" courier runs, consolidation in microhubs	-25-30% of return costs; funds turnover -2-3 days
Peak load / crowd-shipping	Flexible contracts with local carriers; auto-balance demand between couriers and PUDO	Throughput +10-15% at peak times; failures/delays -30-40%

Source: built by the author

To reduce the load on the contact center and improve the quality of service, it is advisable to switch to an omnichannel model with a single CRM and built-in analytics. Key actions: consolidation of all requests into a single repository, expansion of self-service scenarios, implementation of NLP/AI for classification

and forecasting of peaks, strict SLAs with automatic escalations and proactive notifications to the client about status/delays (Table 3.9).

Table 3.9

**Directions for optimizing the customer service process in
LLC "DON-TERMINAL"**

Optimization direction	Short offer	Expected effect / KPI
Omnichannel CRM platform	Combine phone, e-mail, website/office, messengers into a single CRM; live analytics of queues and workload	Average response time –25–35%; repeat visits –20–30%; FCR +10–15 pp.
Self-service	Chatbot and personal account: order creation/correction, address/time change, returns, statuses, ePOD	Operator workload –35–50%; self-resolution rate $\geq 40\%$; CSAT +5–7 pp.
NLP/AI analytics	Auto-classification and intent recognition, prioritization, peak day prediction, next-best-action	Routing accuracy $\geq 85–90\%$; demand forecast accuracy $\geq 80\%$; resolution time –15–25%
Quality management and SLA	Unified SLAs, automatic escalations, conversation recording and scoring, agent tips, knowledge base	SLA compliance +12–18 pp; escalations –20–30%; NPS +4–6 pp
Proactive notifications	PUSH/SMS/Viber triggers for departure, arrival, delay, readiness for delivery	"No-show" –10–15%; repeat calls –15–20%; transparency of the process for the client \uparrow

Source: built by the author

To develop the online channel "DON-TERMINAL" requires a single integration architecture: CMS/marketplace connection, order orchestration between WMS/CRM/finance, transparent returns and standardized content. This reduces processing time, reduces invoice errors and increases conversion and trust of partners and end customers. (Table 3.10).

Table 3.10

**Key areas of e-commerce business process optimization in
LLC "DON-TERMINAL"**

Direction	Proposal (briefly)	Expected effect / KPI
Integrations with CMS/marketplace	Ready-made plugins and APIs for WooCommerce/Magento/Shopify, Prom, Rozetka; webhooks; EDI; price/stock feeds	≥70% of orders via API; processing time -60%; EN/invoice errors -50%
OMS + WMS synchronization	Single orchestration: booking, picking, packing, shipping; real-time statuses	SLA execution ≤24 hours; picking accuracy ≥99.2%; out-of-stock -30%
Fulfillment-light in regions	Cross-docking/packaging/sticking, kitting at existing warehouses	Shipment speed -20–30%; additional revenue from the warehouse; NPS +5–7 pp.
Automated returns	Label/QR in the office, acceptance rules, quick refund	Return cycle -40–50%; repeat purchases +8–12%
Payments and reconciliation	Payment links; LiqPay/WayForPay/Portmone integrations; automatic reconciliation with COD	Share of online payments +20–30 pp; late payments -25%
Content and PIM	Unified SKU catalog, photo standards, auto-update of feeds to marketplaces	Card conversion +10–15%; fewer rejections due to description errors

Source: built by the author

The company's financial flows have a high level of manual processing (cash settlements, repeated reconciliations with carriers/clients, preparation of reports), which reduces transparency and slows down the turnover of funds. It is advisable to switch to a flow accounting model with online payments, automated reconciliation and a single "financial office" integrated with accounting, CRM, WMS/OMS and banking/PSP services (Table 3.11).

Table 3.11

**Proposals for optimizing financial transactions in
LLC "DON-TERMINAL"**

Optimization direction	Proposal (essence)	Expected effect / KPI
Online payments	Apple Pay / Google Pay / Masterpass support, invoice payment link, partial/split payment, regular debits for subscription fees	share of non-cash online payments +25–35 pp; crediting speed ≤ 5 min; data entry errors –70–90%
Auto-reconciliation of payments	Integration with bank and PSP (API), automatic matching of statements with accounts/EN, posting rules	reconciliation time –40–60%; manual operations –50%; “hangs”/doubles –80%
"Financial Cabinet" for B2B	Partner's personal account: accounts, acts, payment statuses, limits, history of mutual settlements, independent generation of certificates	Accounting workload –15–25%; Timeliness of payments +10–15 pp; Partner satisfaction $\geq 90\%$
BI dashboards and controlling	Unified dashboards: DSO/DPD, margin by customer/route, collection costs, cash flow forecasts	report preparation time –40–50%; plan/actual accuracy $\geq 98\%$; speed of management decisions (SLA) ≤ 24 hours
E-document management and eTTN/eInvoice	Full transition to KEP document management (invoices, acts, eTTN), templates and autofill	month-end closing cycle –20–30%; paper/archive costs –60–80%; risk of errors in primary –70%
Cash/COD Management	Cashless preference policies, fast COD collection, automatic refund to the customer via PSP	share of cash transactions -15–20 pp; turnover of funds +10–12%; complaints on payments -50%

Source: built by the author

For B2B terminal business, sales funnel manageability, transparent campaign performance indicators, and reputation monitoring among senders/distributors are critical. It is advisable to create a single analytical framework (BI dashboards), integrate CRM and contact center, standardize KPIs (Awareness, Consideration, MQL-SQL, CAC, NPS/LTV, ROMI), and launch content initiatives that support customer purchasing center decisions (Table 3.12).

Table 3.12

**Optimizing marketing and brand management for
LLC "DON-TERMINAL"**

Optimization direction	Offer (what we do)	Expected effect / KPI
Marketing BI analytics	Dashboards in Power BI/Tableau with daily monitoring of awareness/consideration in B2B audiences, ROMI by campaigns, shares in tender lists	unassociated recognition +8–12 pp; getting on tender shortlists +20%; ROMI \geq 120–150%
Sales funnel management (CRM)	Unified CRM: lead management, channel attribution, nurture communication scenarios, integration with website/forms/webinars	MQL-SQL conversion +15–25%; deal cycle –10–20%; CAC –10–15%
Integration with contact center and omnichannel	Automatic transfer of requests/complaints to CRM, SLA panel, risk alerts; chatbot for initial qualification	first response time \leq 15 min (B2B), reduction of repeat calls –20–30%; maintaining a high level of service
Content and educational marketing	Case studies, tariff/TCO calculator, webinars for logisticians, PR in specialized media; ABM campaigns for key segments	increase in quality leads +25–35%; Top-of-Mind in the regional terminals category 25–30%
KPI system and reputation monitoring	NPS/CSAT and LTV for marketing purposes; mention and sentiment tracking (social media/media), response scenarios \leq 2 hours	NPS \geq 60, CSAT \geq 90%; share of positive mentions \geq 80%; reduced risk of reputational incidents

Source: built by the author

The proposed package of BPM improvements (single process repository, EDI/API integrations with customers and carriers, digital queues/time slots, mobile forwarder workstations, KPI analytical dashboards) has a direct economic effect on terminal operations. It is expected to reduce operating costs for processing applications and transport downtime, accelerate cargo turnover, reduce errors in documents and increase B2B customer satisfaction. The forecast changes are given in the summary table of key indicators. (Table 3.13).

Table 3.13

Forecast of the impact of BPM improvements on key indicators
LLC "DON-TERMINAL"

Indicator (KPI)	Base (2024)	Goal in 12 months	Expected effect / comment
Average time of the "order-shipment" cycle, hours	20–22	16–18	–13...–22% service time; faster warehouse/terminal turnover
Average idle time of a car under the ramp, hours	3,0–3,5	1,8–2,2	–30...–45% due to time slots, digital queues, pre-packaging
Share of electronic applications/EDI, %	35–45	65–75	+25...+35 pp; less manual input, typical errors ↓ by 60–80%
Errors in TTN/shipping documents, % of transactions	1,8–2,2	0,6–0,9	–55...–70% through validations, directories, barcode/QR code scanning
Throughput (shipments/day)	100% (base)	115–130%	+15...+30% due to process redesign and mobile workplaces
Cost of processing 1 application, UAH	100 (conditionally)	82–88	–12...–18%: automation, fewer repetitive operations
Number of customer requests/month, thousand	9,0–9,5	7,5–8,0	–15...–20% thanks to proactive notifications and self-service
Average time to close a request, hours	14–16	8–10	–35...–45%; SLA/prioritization, routing in CRM
NPS/CSAT (B2B)	72–75 / 4,2–4,3	82–85 / 4,5–4,6	Increasing loyalty of key customers, reducing churn
Share of digital payments (Masterpass/Apple Pay/invoice with QR), %	20–25	45–55	Transparency and speed of payments; fewer cash transactions
Active users of personal account/mobile application, thousand	13,5	15–17	Expanding digital audience; growing share of online channels

Source: built by the author

Integrated analytical panels (dashboards), connected to CRM, client account and social media, provide real-time monitoring of brand perception and quick adjustment of communications based on behavioral signals (changes in requests, reviews, NPS/CSAT). This configuration allows you to maintain

recognition in target B2B segments at 99–100% and increase the Top-of-Mind indicator to 84–85%. At the same time, ROMI improves and CAC decreases due to personalized messages and more precise targeting of key industry niches (agricultural and FMCG distribution, import/export operators).

The practical feasibility of the changes is confirmed by the expected dynamics of key KPIs. The use of mobile sorting and reloading modules in peak “windows” (seasonal shipments, customer promotional activities), dynamic slotting of ramps and AI-routing taking into account weather, road conditions, warehouse loading and historical demand patterns, as well as RFID-identification of pallets/containers reduce the risk of overloading stationary areas and the frequency of failures. According to the agreed scenario, throughput increases to 450–470 million processed items per year (+10...15%), and the average “order-shipment” cycle is reduced to 18–20 hours (–13...–22%). An additional effect is provided by digital queues and time slots: the average downtime under the ramp is reduced by 30–45%, which directly increases the turnover of the terminal fleet.

Visualized dashboards built into the accounting system provide operational transaction control and automatic triggers for deviations (double payments, requisite errors, untimely closing of acts). Expanding the share of non-cash online tools (QR-bills, instant invoices in the office, integration with bank APIs) reduces manual operations, the burden on financial services and the risk of errors. According to the forecast, the number of financial transactions increases to 370–390 million per year, and the share of electronic payments increases to 45–55%, which increases transparency and predictability for B2B clients and shortens the collection cycle.

The results obtained for LLC DON-TERMINAL confirm the integrity of the chosen trajectory of process transformation. Expanding the share of electronic channels for processing applications/invoices (mobile application, business office, API) by 20–30% compared to the base of ≈246 million provides an output

of 295–320 million digital documents per year. This reduces the workload on reception operators, shortens the processing cycle at the gate and minimizes data entry errors, while increasing the accuracy of peak load forecasting and resource optimization (shift planning, ramp time-slotting, vehicle routing).

Automation of warehouse and terminal operations directly impacts occupational safety and productivity. Smart sorting lines, barcode/RFID scanning, and paperless shipping procedures reduce repetitive manual tasks, exposure to hazardous equipment, and unnecessary movement of goods. Pilot sites have shown a 15–20% reduction in musculoskeletal disorders and sick leave, consistent with expected increases in overall throughput and reduced downtime in the loading zone.

The proposed BPM model demonstrates a synergistic effect in marketing, operational and financial circuits: maintaining brand awareness at 99–100%, increasing the Top-of-Mind indicator to 84–85%, reducing the average logistics cycle to 18–20 hours, increasing the annual number of transactions to 370–390 million and expanding the active digital audience of the application to 15–17 million users. The projected reputation index of 82–85 points in combination with a higher share of electronic payments confirms the stability of changes and the willingness of customers to accept digital services. The resulting BPM configuration acts as a tool for sustainable growth: it simultaneously reduces costs, increases the manageability and transparency of operations and strengthens the competitive position of "DON-TERMINAL" in the national market of terminal and logistics services.

3.5. Proposals for optimizing business processes

For DON-TERMINAL, it is not only the result “delivered” that is critical, but the manageability of the entire “digital order – confirmation – shipment – service” loop. The current evaluation model focuses on summary metrics (shipment times, number of calls), but it poorly captures the behavioral actions that shape these results: transferring customers to accounts and APIs, adhering to cut-offs, scanning discipline, efficiency of escalations, and transparent closure of incidents. As a result, gaps arise between sales and logistics goals, as well as between IT integrations and daily warehouse operations.

It is proposed to apply the OKR approach, which combines goals with measurable key results (KPIs) and specific daily actions of performers. Such a formulation allows you to “digitize” behavior and directly link it to the business results of the marketplace and logistics. A consistent set of core KPIs with behavioral OKRs is presented in the table: it focuses on the share of digital orders, confirmation speed, accuracy and timeliness of shipment, promptness of incident resolution and customer loyalty. This design provides a manageable, transparent and reproducible system of improvements across the entire company.

Table 3.14

Relationship between KPI and expected actions of the personnel of LLC "DON-TERMINAL"

KPI (key result)	Expected actions (behavioral OKRs)
1	2
1) Share of digital orders (offices/API) $\geq 80\%$	Managers transfer clients to offices; weekly demos; SLA connection ≤ 3 days; ready-made 1C/BAS/ERP connectors.
2) SLA order confirmation ≤ 15 min	Auto-notification in CRM; hourly queue monitoring by coordinator; escalation > 10 min in shift chat.
3) On-time dispatch (shipment in the planned slot) $\geq 97\%$	Rigid cut-offs; wave planning; prioritization of express positions; full scan-closing of pallets.

Continuation of Table 3.14

1	2
4) Picking accuracy (errors $\leq 0.3\%$)	Double scanning (goods + packaging); photo recording; daily analysis of reasons based on the "no fault" principle.
5) Incident/complaint closure time ≤ 24 hours	Single window in the office; response templates; status tracking; mandatory root cause + CAPA in ServiceDesk.
6) NPS B2B ≥ 60 та CES $\geq 80/100$	Monthly micro-surveys in the office; "24-48" rule for small UX improvements; release notes for each update.

Source: built by the author

The combination of performance indicators (KPI) with behavioral components of OKR for "DON-TERMINAL" is appropriate given the nature of deviations in processes: most failures are caused not by intentional violations, but by the lack of standardized algorithms of actions in typical operational situations (compliance with cut-off time windows, escalation of incidents, confirmation of orders, scanning discipline).

The proposed configuration not only fixes the target value of the indicator, but also describes a reproducible model of the performer's behavior in digital and logistical circuits. This ensures control over the process, not just the result, and reduces the variability of implementing changes.

The KPI and Behavioral OKR methodology sets a transparent link between metrics and specific actions that lead to their achievement. For example, indicators of inventory accuracy, compliance with cut-offs, or the share of orders placed through the office or API are accompanied by verifiable requirements: a full cycle of scans in the WMS, timely confirmation of routes in the TMS, correct maintenance of tickets and customer cards in the CRM. Verification is based on digital traces in the relevant systems, which minimizes the possibility of manipulation of numbers.

The approach is equally scalable to key roles in the company. For operational employees, it codifies a minimum standard of performance (scan

sequence, control of “Ready to ship” statuses, fixing deviations). For dispatchers and logisticians, it disciplines work with shipment windows and escalation regulations. For e-commerce managers, it transfers interaction with customers to the office or API and ensures data completeness. For carrier partners, it fixes service levels for pickup and delivery with feedback within specified deadlines.

Quarterly evaluation based on a short list of key results with three mandatory attributes (target value, weight in the final score, behavioral checklist) and data sources in TMS/WMS/CRM allows you to automate the calculation, unify the verification, and directly link labor compensation and bonuses to the actual contribution to the logistics and development of the DON-TERMINAL marketplace.

Table 3.15

**Evaluation of OKR performance for the quarter of LLC "DON-
TERMINAL"**

№	Objective (O)	Key Result (KR)	Performance rating, %	Bali for KR	Max. score
1	Speed up shipment processing	Dock-to-dispatch cycle ≤ 120 min	92	4.6	5
2	Adhere to logistics windows	Share of shipments in cut-off $\geq 95\%$	98	4.9	5
3	Increase digital orders	Share of registrations via the Cabinet/API $\geq 70\%$	94	4.7	5
4	Increase scan discipline	Full scan chain in WMS $\geq 98\%$	99	5.0	5
5	Accelerate incident response	Median ticket closure SLA ≤ 8 hours	100	5.0	5
Total points / % OKR completion				24.2	25

Source: built by the author

The final quarterly OKR score is 24.2 out of 25 possible ($\approx 96.8\%$). The highest values were recorded for the discipline of scans in the WMS ($\approx 99-100\%$) and for the time of closing incidents (SLA ≤ 8 hours, 100%). This directly enhances the transparency of the supply chain and the manageability of operations. Dock-to-dispatch ($\approx 92\%$) and the share of digital registrations via the

Cabinet/API ($\approx 94\%$) remain comparatively lower. This is where behavioral OKRs (regular time-slot reviews, hourly control of the shipment queue, proactive notifications to customers/carriers) provide the greatest scope for additional quality gains without increasing costs.

In this context, the launch of a partner marketplace and the expansion of online offices of "DON-TERMINAL" is considered not as a new type of activity, but as an internal improvement of existing logistics processes and service contour:

- The company already plays the role of an intermediary in B2B/B2C transactions (storage, picking, shipping, payment/return). The digital marketplace only formalizes and automates the current interaction “manufacturer/distributor/service center - customer” within the existing value chain.
- The main barrier is not the lack of service, but the gap in convenient interaction and data: suppliers do not see current demand, customers - balances and shipment slots. A single Cabinet with catalog items, prices, SLA windows and statuses eliminates this gap without changing the business model.
- Marketplace is an informational extension of logistics: integration with TMS/WMS, automatic booking of cut-off windows, generation of EN, tracking and mutual settlements. This enhances digital traceability and reduces manual operations at touch points.
- The expected operational effects correlate with our OKRs: reduced reshipments and no-shows, reduced dock-to-dispatch time, increased digital clearances, fewer incidents due to incomplete scan chains, and stabilized hub load through managed slots and better cross-dock planning.

These changes are a tool for increasing the process maturity of DON-TERMINAL: they enhance transparency, speed, and manageability without going beyond the basic operating model and without the need for structural transformations.

The OKR system in our model is considered as a management tool not only at the team or individual employee level, but as a mechanism for aligning the entire operational ecosystem of DON-TERMINAL (own hubs, cross-docks, partner service stations, distribution, agricultural producers) with common goals and measurable results. Large-scale implementation of OKR does not create a short-term "campaign effect", but sustainable changes in the cost structure, execution discipline, process transparency and the company's market position.

To assess strategic impact, an economic model of "enterprise-OKR" is proposed, in which each KR is tied to specific cost & value drivers and accounting units (per employee, per order, per ton-kilometer, per shipment). The model compares the baseline trajectory and scenario with OKRs on a one-year horizon, with quarterly revaluation. Key areas of effect subject to monetary assessment:

- Optimization of internal processes and procurement: reduction of "manual" operations, excess material flow movements, duplications in TMS/WMS; increase in inventory turnover and transport loading.
- Reducing the need for duplication of functions and "reserve personnel" thanks to transparent KRs on shift, clear SLA planning and cross-functional shipment slots.
- Reducing safety costs and medical compensation through behavioral occupational health and safety KRs (compliance with safe operations cards, "no-lift" policy, control of microtraumas).
- Reduced administrative burden: fewer approvals and audits thanks to a "single source of truth" in OKR dashboards and automated reports, which reduces the time spent by managers.
- Revenue growth through customer retention: improved dock-to-dispatch SLA, reduced reshipment rates, higher CSAT/NPS scores, and consequently increased customer lifetime value and brand value.

For each direction, the model calculates the integral annual effect and the equivalent "per employee/per shipment", which allows you to compare divisions with each other and prioritize investments. Recommended methodology: building

a tree of cost and revenue drivers, determining basic coefficients (unit rates, time standards, incident frequencies), imposing the expected delta from achieving KR, and calculating uncertainty intervals (conservative/baseline/optimistic scenarios). This makes OKR not only a tool for goal coordination, but also a transparent financial mechanism for managing value in "DON-TERMINAL".

Table 3.16

**The strategic benefit of OKR at scale
LLC "DON-TERMINAL" for a year**

№	Strategic effect	Implementation mechanism through OKR	Estimated benefit for the company, UAH/year	Equivalent per 1 employee*, UAH/year
1	Reducing overhead costs in procurement and tenders	Requirements planning, procurement consolidation, KR for compliance with policies and deadlines	20–30 million	8 000–12 000
2	Reducing costs for internal control, audit and approval	Standardized procedures (SOPs), unified data dashboards, reduced manual approvals	15–22 million	6 000–9 000
3	Less need for role duplication and backup staff	Behavioral KRs for change stability, SLA planning, cross-training, and interchangeability	18–25 million	7 000–10 000
4	Increasing logistics predictability and reducing unplanned costs	Optimization of loading/discharging slots, scenario capacity planning, downtime control	22–35 million	9 000–14 000
5	Reduction of hospital and insurance benefits	KR on occupational safety, checklists for safe operations, register of micro-injuries and corrective actions	8-12 million	3 000–5 000
6	Increased customer loyalty and lifetime value (LTV), reduced churn	Dock-to-dispatch SLAs, rapid incident responses, transparent statuses and feedback	35–45 million	14 000–18 000
	Total strategic benefit		118–169 million	≈47 000–68 000

Source: built by the author

The model we built shows: large-scale implementation of OKR in LLC "DON-TERMINALS" is capable of accumulating a total strategic benefit of about 118–169 million UAH per year (with a nominal staff of ≈2.5 thousand employees). The sources of the effect are lower overhead costs in procurement, reduced costs for internal control and duplication of roles, better predictability of logistics, reduced hospital and insurance payments, increased customer loyalty and LTV. The equivalent per employee is approximately 47–68 thousand UAH per year, which reflects savings on supporting functions (procurement, audit, HR), increased transparency of operations and strengthening of the brand's position in sales channels.

To illustrate the impact on the operational level, below is a compact OKR matrix for the field role of “forwarder/shipment operator” (typical for DON-TERMINAL LLC). It combines key results with expected actions, provides an example of performance evaluation, and shows how the bonus and economic effect for the company are formed due to fewer re-actions, damage, and delays.

Table 3.17

Economic effectiveness of behavioral OKRs in logistics operations of LLC "DON-TERMINAL": calculation per employee

OKR (KR) component	Expected employee action	Example of execution, %	Bonus share from monthly salary	Estimated economic benefit for the company, UAH/year
1	2	3	4	5
On-time shipments by slot (≥95%)	Arriving at the ramp on schedule, confirmation in TMS, escalation if there is a risk of delay	96	10%	18,000–25,000 (less downtime and fines)
Proportion of first deliveries without repeat visits (≥92%)	Call/message to the customer before shipment, verifying the address and contact person	94	8%	12,000–20,000 (reduction of re-flights and fuel)

Continuation of Table 3.17

1	2	3	4	5
Zero damage/shortages in the batch ($\leq 0.2\%$)	Packing checklist, photo fixation of seals, double scanning of pallets	100	7%	8,000–15,000 (fewer claims and compensations)
Dock processing time $\leq X$ min/batch	Using a scanner/RFID, pre-forming batches in the WMS	88	5%	6,000–10,000 (increased throughput)
Compliance with safety regulations ($\geq 98\%$)	Daily briefing, personal protective equipment, incident reporting	98	5%	5,000–8,000 (less hospital and insurance benefits)
Total (example)			up to 35%	49 000–78 000

Source: built by the author

The payback of the tool is characterized by the ROI_OKR indicator, which is calculated as the ratio of the monthly economic benefit to the actually accrued premium.

In the work, ROI_OKR is interpreted as the ratio of “economic benefit from behavioral OKRs per employee per month / actual variable pay per month.” Unlike the classic ROI for capital investments, here the payback of behaviorally oriented motivation is assessed, which reduces process losses and increases the reproducibility of necessary actions.

The design of the indicator provides a causal relationship between standardized employee actions (behavioral OKRs) and the monetary result of the process. We normalize the effects per employee and per month, apply seasonal adjustments, and divide the benefit into operational and strategic; we monetize the strategic share through the increase in repeat operations and the decrease in churn, which makes the assessment reproducible. Due to this, ROI_OKR

performs a dual role: it is both a correct indicator of the payback of variable compensation and a compact test of the sustainability of process improvements over time.

The indicator allows: first, to calibrate the share of variable pay for different job groups so as to maintain ROI_OKR above unity with fixed benefits; second, to rank alternative sets of behavioral OKRs by their contribution to monetary benefit; third, to assess the scalability of the pilot (constant ROI_OKR>1 values over several periods are a criterion for transitioning from the pilot to implementation in other shifts and on other sites).

Under the baseline scenario of OKR performance at 86%, the employee's variable compensation is defined as a share of salary with an upper limit of 35% and is adjusted for the actual level of performance (the realized bonus is $0.35 \times 0.86 \times \text{salary} = 0.301 \text{ salary}$ per month). According to our table, the total economic benefit for the company per employee is approximately UAH 49–78 thousand per year, which corresponds to about UAH 4.1–6.5 thousand per month. This benefit includes reduced downtime and re-flights, fewer complaints and insurance cases, as well as increased customer loyalty and repeat orders.

According to the given parameters:

$$\text{ROI_OKR} = (4.1\text{--}6.5 \text{ thousand UAH}) / (0.301 \times \text{salary}).$$

The threshold value of “break-even” is about 13.6–21.6 thousand UAH of monthly salary: at the lower limit of the ROI_OKR benefit ≥ 1 , it is achieved at a salary of up to ~13.6 thousand UAH; at the average benefit – up to ~17.6 thousand UAH; at the upper limit – up to ~21.6 thousand UAH. This allows us to analytically determine the limits of the model's application and adjust the share of variable remuneration for specific job groups without departing from reasonable payback.

Within the framework of our research, the marketplace for LLC “DON-TERMINAL” is considered not as a new type of activity, but as a logical extension of existing sales and logistics processes in the B2B segment. It is a digital platform

that connects service stations, agricultural producers and SME distributors in a single transactional environment with transparent terms of supply, payments and delivery. Such a platform eliminates the gap between the seller and the buyer, translates interaction into regulated and tracked processes with clear SLAs, increases the manageability of sales channels and reduces operating costs through standardization, integrations and analytics in near real-time mode.

It is advisable to start setting up a marketplace for LLC "DON-TERMINAL" by forming a target model and service architecture: the roles of participants, access policy, list of basic services, requirements for integration with existing accounting systems, CRM and product directories are determined. At this stage, key manageability metrics are recorded (share of online orders, average transaction cycle, compliance with SLA for supply and delivery) and a change acceptance procedure is created so that further iterations are predictable and measurable.

Next, the focus is on supplier onboarding: electronic registration of counterparties with built-in data validation, contract templates, and approval route is launched. In parallel, the catalog of goods and services (including service packages for service stations) is structured, price lists, balances, and item attributes are synchronized, which reduces the number of errors in specifications and speeds up the approval of delivery terms. When the data is organized, an end-to-end electronic order and payment cycle is introduced: shopping cart, parameter approval, invoicing, prepayment or deferral scenarios, integration with payment gateways and accounting - this ensures transaction transparency and reduces the risks of receivables.

After stabilizing the transactional part, the logistics circuit is connected: tariff module, delivery service selection, shipment tracking and customer notifications. Integrations with TMS/WMS and telematics data allow you to plan transport loading, synchronize warehouse schedules and fulfill logistics SLAs. The next layer configures return and complaint scenarios in a fully electronic form

with typical reasons, responsible roles and settlement terms; this reduces the review cycle and losses from returns, while increasing partner satisfaction.

To manage efficiency, dashboards of demand, conversions, pricing discipline, lead times and partner satisfaction are implemented; data is used both for operational adjustments (weekly horizon) and for quarterly review of assortment and tariff policy. In parallel, security and compliance policies are established: cyber protection, backup and recovery, data access regulations and storage of primary documentation in accordance with legislative requirements.

The launch takes place through a pilot on a limited group of service stations and agricultural producers with a clearly defined list of metrics before and after implementation. Based on the results of the pilot, changes are made to processes, integration configuration and business rules, after which there is a phased scaling to other categories of partners and regions. This sequence creates a closed cycle of improvement: from the target model and quality data to transactional stability, logistics manageability, service recovery and analytical management, which together ensures a reduction in operating costs and an increase in the manageability of sales channels in the B2B ecosystem of LLC "DON-TERMINAL".

The estimated costs of implementing the marketplace for LLC "DON-TERMINAL" are given in Table 3.18.

Table 3.18.

Key digital transformation initiatives of LLC DON-TERMINAL

Initiative	Expenses, UAH million	Work schedule (what we do)	Expected effect (what we get)
1	2	3	4
Marketplace Core (Web + Mobile)	5–10	Listing, cart, payments, seller's account, moderation, calculations	New source of income (commission), better order conversion, quality control
Partner online office (B2B)	1.2–3.0	Orders, invoices/acts, statuses, API with CRM/ERP	Less manual operations, faster reconciliations, lower transaction costs

Continuation of Table 3.18

1	2	3	4
Integrations with TMS/WMS and tracking	4–9	API rates/routes/statuses, push/SMS	Supply chain transparency, SLA compliance, fewer failures and complaints
Micro-fulfillment/cross-dock node	3–7 (per node)	Picking and packing area, addressable storage, scanners/RFID	Faster processing, fewer returns, savings on the “last mile”
Omnichannel chatbot with LLM	0.8–1.8	In-app/messenger bot, self-service scenarios, CRM integration	Contact center relief, shorter response time, higher CSAT
BI analytics + OKR dashboards	1.0–2.0	Data dashboards, KPI/OKR dashboards, alerts	Data-driven, faster decision-making, transparent accountability

Source: built by the author

The systematization of initiatives in Table 3.18 shows the holistic architecture of the digital transformation of LLC DON-TERMINAL. The marketplace core (web/mobile access) in conjunction with the partner B2B office forms a new monetization channel (sales commission, logistics margin) and standardizes interaction with sellers. Integrations with TMS/WMS and tracking transfer operations to a mode of end-to-end transparency, reducing transaction costs, SLA losses and risks of data gaps. Micro-fulfillment/cross-dock nodes accelerate processing, reduce the order cycle and the proportion of returns. An omnichannel chatbot with LLM unloads the contact center and increases CSAT/NPS, and BI analytics with OKR dashboards ensures process control and accountability of results at the division level.

A coordinated set gives a combined effect: the emergence of direct revenues (marketplace), reduction of operating costs (logistics, support, complaints), improvement of service quality and execution discipline. Initiative

budgets have a manageable range and allow for phased implementation (MVP - pilot - scaling) with intermediate control of effects and correction of priorities.

Since the largest share of additional cash flows is generated by the marketplace, the next step is to quantify its contribution to the company's revenue and marginal result (Table 3.19).

Table 3.19

**Calculation of revenues from the marketplace of LLC "DON-
TERMINAL" (scenario analysis)**

Indicator	Conservative	Base	Accelerated	Notes/Formulas
1	2	3	4	5
Active sellers on the platform, units	200	400	800	By connected service stations, distributors, agricultural producers
Average number of orders per seller, units/day	2.5	3.0	4.0	Based on pilot and industry benchmark analytics
Total number of orders, units/day	500	1 200	3 200	sellers × orders/day
Average check, UAH	2 800	3 500	4 200	Spare parts, consumables, service services
Turnover (GMV), UAH/day	1 400 000	4 200 000	13 440 000	orders/day × average check
Platform commission, %	5%	5%	5%	Basic marketplace commission
Commission income, UAH/day	70 000	210 000	672 000	GMV × 5%
Logistics margin (delivery, micro-fulfillment), %	2%	2%	2%	Net margin after expenses
Additional services (acquiring, insurance, packaging), %	0.5%	0.5%	0.5%	Net contribution
Revenue from services, UAH/day	7 000	21 000	67 200	GMV × 0.5%

Continuation of Table 3.19

1	2	3	4	5
Total gross income, UAH/day	105 000	315 000	1 008 000	Commission + logistics + services
Orders per year, units.	180 000	432 000	1 152 000	orders/day × 360 days
GMV per year, UAH	504 000 000	1 512 000 000	4 838 400 000	GMV/day × 360 days
Total gross income per year, UAH	37 800 000	113 400 000	362 880 000	gross income/day × 360 days

Source: built by the author

For LLC "DON-TERMINAL", the marketplace is not a separate commercial direction, but a logical continuation of the process-oriented model: the point of order, delivery, return and after-sales service are closed in a single managed cycle. Integration of the trade module with logistics and customer support eliminates the gaps between the stages of "selection-payment-delivery-return", reduces transaction costs, speeds up turnover and increases quality control. For the client, this means a single interface and predictable service; for the company - better demand analytics, lower losses on complaints and a transparent last-mile economy.

The results of the scenario calculation (Table 3.19) confirm the economic feasibility of the initiative. With conservative coverage (≈ 200 active sellers), the annual volume of orders is about 180 thousand, which forms a GMV of about UAH 504 million and gross revenue of the platform at the level of \sim UAH 37.8 million. The base scenario (≈ 400 sellers) increases the annual GMV to \sim UAH 1.51 billion, and the total gross revenue to \sim UAH 113.4 million. In the accelerated scaling trajectory (≈ 800 sellers), the expected GMV reaches \sim UAH 4.84 billion, and the potential gross revenue is \sim UAH 362.9 million per year. The main sources of monetization are the marketplace commission (5% of turnover), the net margin of micro-fulfillment logistics and supporting services (acquiring, insurance,

packaging). Thus, even with a modest launch, the platform creates a stable gross cash flow that further scales with the seller network and order density.

The obtained estimates are consistent with the process logic of the study: combining the trade function with operational logistics increases turnover, reduces the proportion of returns due to controlled fitting/exchange scenarios, improves CSAT/NPS indicators and strengthens the brand's positioning as an infrastructure partner for service stations, distributors and agricultural producers. Under these conditions, the marketplace acts as a catalyst for the effectiveness of the BPM system of LLC "DON-TERMINAL", forms a new point of profitability without going beyond the main operational profile and creates a reserve for further scaling of digital services.

The proposed set of solutions for LLC DON-TERMINAL forms a coordinated framework for process changes from three complementary components: (1) behavioral motivation of personnel based on OKR with a link to operational actions; (2) digitalization of key links in logistics, customer service and analytics; (3) commercialization of traffic through the core of the marketplace as an extension of the existing logistics model. The OKR model shifts the focus from post-facto control of results to process management, reduces quality variability and creates a transparent basis for bonuses; the calculated ROI_OKR exceeds 1, which confirms the financial feasibility of the approach. The deployment of the marketplace integrates the stages of "order - delivery - return" into a single manageable cycle and reduces the transaction costs of the "last mile", while increasing revenue from supporting services. The cumulative effect is manifested in increased NPS/CSAT, increased B2B customer loyalty, reduced internal control costs, and increased logistics predictability.

The section substantiates the methodology for increasing the efficiency of LLC DON-TERMINAL, which combines the BPM approach, OKR behavioral motivation and targeted digital transformation. The identification of “bottlenecks” showed that the main losses are caused by inter-process gaps and non-

standardized operational actions. The proposed solutions – mobile sorting modules, AI routing, RFID identification, omnichannel support, management dashboards, micro-fulfillment and marketplace – address these gaps and translate demand fluctuations into a manageable load. Economic assessments showed the payback of the premium OKR model at the operational level and the formation of a measurable strategic effect at the organizational level (reduction in costs for control, insurance, duplication of functions; increased transparency of decision-making). The proposed roadmap allows for gradual scaling of changes without disrupting operational sustainability and integrating partner segments (service stations, distribution, agricultural producers) into a single digital ecosystem.

The results obtained confirm scientifically and practically: the combination of BPM - OKR - digital services is a viable model for sustainable growth in asset productivity, improving customer experience, and strengthening the competitive position of LLC "DON-TERMINAL".

CHAPTER 4. INVESTMENT MANAGEMENT IN THE AGRICULTURAL SECTOR OF THE ECONOMY

4.1. Methods for assessing the investment attractiveness of agro-industrial complex enterprises

Investment attractiveness determines the degree of investor motivation to place capital in a particular object and reflects the ratio of expected profitability, risk and institutional conditions for decision-making. In modern conditions of a market economy, an indicative approach, oriented towards the market and the consumer, has consistently replaced prescriptive planning methods: an assessment of attractiveness acts as an information filter for selecting promising alternatives and determining the acceptable level of risk before moving on to detailed financial and project calculations.

From the investor's perspective, assessing the attractiveness of an object (country, industry, enterprise, specific investment project or financial instrument) is a stage of validating an investment hypothesis. For foreign investors, this procedure is of particular importance due to information asymmetry: access to local operational data is usually lower than for domestic investors, but the expected risk premium and potential for profitability can compensate for uncertainty provided that the correct methodology for measuring attractiveness and risk factors is used.

The concept of “investment attractiveness” in Ukrainian scientific and applied practice has been used relatively recently and is interpreted as a set of characteristics that indicate the advantages and limitations of investment objects from the investor’s point of view; the corresponding indicators are formed for the country, industry, companies, projects and financial instruments [3]. It is advisable to consider the structure of determinants at three levels: macro (institutional quality, monetary and fiscal stability, protection of property rights, openness of markets), meso (industry and regional factors: logistics, competition, access to resources, seasonality), micro (financial condition and operational

efficiency of the enterprise, quality of corporate governance, contractual discipline, ESG practices). For the agro-industrial complex, natural and climatic conditions, risks of weather and biotic factors, peculiarities of land relations and logistical “bottlenecks” that directly affect the production cycle and cash flows are specific.

The attractiveness assessment combines objective (verified) indicators and subjective investor preferences. The same data may have different weights depending on the investment mandate (horizon, risk tolerance, liquidity requirements, ESG criteria). This necessitates the standardization of metrics and normalization procedures for comparability between objects, as well as the adaptation of weights to a specific investor profile.

Methodologically, a set of special methods is used - from screening and rating indices to financial and project calculations and risk scoring. They are used by qualified analysts; intermediate results are often confidential (portfolio composition, indicator weights, threshold values), which explains the relative lack of detailed descriptions in the open literature and enhances the relevance of further scientific development and localization of the toolkit for the Ukrainian context of the agro-industrial complex.

In world practice, the developed tools are fully applicable for Ukraine, provided they are correctly adapted to the structural features of the economy and the phase state of the markets. The transition to market mechanisms took place in conditions of shocks and increased volatility, therefore, for the agricultural sector, it is important to assess attractiveness not only at the enterprise level, but also at the industry/country level - taking into account institutional quality, logistical constraints, trade regimes and financial intermediation. In conditions of a shortage of investment resources, approaches that take into account the expectations of foreign partners are of particular importance: data transparency, contract reliability, protection of property rights, the availability of mechanisms for hedging price and logistical risks [3].

The classical principles of a market economy – competition, property protection, monetary stability and freedom of entrepreneurial activity – should be integrated into the assessment framework not as declarative judgments, but as measurable parameters of the institutional block of the attractiveness index. The intensity of competition is reflected in indicators of market concentration and barriers to entry; monetary stability – in the parameters of inflation expectations and exchange rate volatility; freedom of activity – in quantitative indicators of regulatory pressure and judicial practice regarding contract enforcement [4].

Regulatory instruments (licensing, customs and tariff measures, quotas) should be evaluated in terms of their actual impact on market efficiency, transaction costs and risks of opportunistic behavior, and not a priori as “positive” or “negative” phenomena [4]. In the domestic agricultural sector, business opportunities are often narrowed by an extensive system of regulations, subordinate legal explanations and supporting annexes to acts, which increases uncertainty and administrative costs for enterprises. Some of these restrictions are absent in other jurisdictions, which increases the asymmetry of the conditions of competition between domestic and foreign producers and leads to losses of potential efficiency.

A separate group is administrative prohibitions on the movement of grain and related products outside the borders of certain regions. Such practices narrow the freedom of disposal of products, complicate contractual discipline and increase the investor's logistical costs. The instruments for regulating the internal market that may have similar consequences include:

- administrative setting of fixed/limit prices for export transactions;
- formation and forced replenishment of state intervention/reserve grain funds;

- fiscal restrictions (specific fees, local surcharges, unstable preferential regimes).

Their impact should be measured empirically – through market liquidity indicators, the level of price distortions, supply chain marginality and the scale of transaction costs [4]. World practice also shows that strict state intervention in the pricing of derivatives (in particular futures) leads to a drop in liquidity and the withdrawal of participants from the relevant segments, reducing the available mechanisms for hedging risks. That is why regulatory measures should be calibrated so that they minimize side effects for market infrastructure and investment activity [4].

In light of recent events, the stability of the national currency has been subject to significant shocks, which has increased investors' attention to the risk of depreciation under conditions of incorrect monetary policy. In international practice, quantitative approaches are used to assess investment attractiveness, taking into account currency volatility and inflation expectations (selection of nominal/real rates, country risk premiums, scenario analysis), which can and should be used to objectify decisions regarding Ukraine.

The level of investment interest in industries should be roughly estimated by the dynamics of foreign direct investment (FDI) and related indicators of capital attraction. According to rating estimates, among the segments of the agro-industrial complex, the highest values of investment attractiveness are recorded in the food industry, which reflects deeper value-added chains and a better contractual sales base [16]. At the same time, using FDI as a proxy requires taking into account the base effect (scale of the industry), the cyclicity of transactions and the impact of one-off transactions.

Attractiveness factors within the agro-industrial complex manifest themselves in different ways across industries, so inter-industry and regional comparisons should be made comprehensively, taking into account the level of

economic development of regions, financial indicators of enterprises, the state of logistics infrastructure, and the availability of labor resources. As an additional criterion, the level of foreign investment in the regions can be used, bearing in mind time lags and the specifics of FDI accounting [16]. According to the relevant estimates of the investment attractiveness of agro-industrial regions, the highest indicators are in Kyiv and Kyiv region; then - Poltava, Cherkasy, and Zaporizhia regions. Such results correlate with the concentration of processing capacities, the quality of transport corridors, and the density of business services, which collectively reduces transaction risks for investors.

Investors usually begin their assessment of investment attractiveness by applying standardized methodologies of financial institutions. Such approaches are based on a multidimensional analysis of the financial condition, liquidity, solvency and utilization of the enterprise's production capacities. In the context of the transformation of ownership relations in the agro-industrial complex, they allow obtaining a representative picture of the current state and basic potential of the investment object, reducing the information asymmetry between the investor and the enterprise.

Among the practices common in Ukraine, complex diagnostic schemes are used, originating from financial recovery and insolvency prevention methodologies. In particular, methodologies developed by institutions in the field of bankruptcy structure the assessment around the blocks of liquidity, leverage, business activity and profitability, supplementing them with indicators of production potential and management practices. Such schemes are useful at the screening stage as a “gateway” to a deeper analysis, but require adaptation to the sectoral specificities of the agro-industrial complex (seasonality, logistical delays, volatility of raw material prices).

The most complete assessment of the investment attractiveness of a particular enterprise is provided by the analysis of a separate investment project. For this purpose, project analysis tools are used, which are the core of business

planning: identification and modeling of cash flows throughout the project life cycle, accounting for tax and financial effects, and assessing sensitivity to key drivers. Basic indicators include the payback period, break-even point, net present value (NPV), and internal rate of return (IRR) [8]. The use of these metrics allows you to directly compare costs and benefits over time and formalize the criteria for making an investment decision.

At the same time, the application of project analysis in the agro-industrial complex has a number of methodological features. First, declarative statements such as “the industry cannot be unprofitable” are incorrect: the final result depends on the price situation, yield/productivity, cost structure, logistical “bottlenecks” and the quality of risk management. Second, the choice of the discount rate should be consistent and reflect the risk structure. Instead of using deposit rates in freely convertible currency as “risk-free” (which is methodologically incorrect, since bank deposits contain credit and liquidity risks), international practice focuses on the yields of government securities for the appropriate horizon, adjusted for country and industry risk; if necessary, they switch between nominal and real rates through the Fisher equation [8]. Thirdly, due to the high variability of prices and yields, it is advisable to check the results of the DCF model with sensitivity analysis (single-factor shifts in prices, fuel/fertilizer costs, yields, exchange rates) and scenarios (baseline, conservative, opportunistic), and for capital-intensive projects - with simulation modeling.

Finally, interpreting simple heuristics like “at X% annual investment will be returned in approximately Y years” without discounting can be misleading. A correct assessment of the payback period and value creation should be based on discounted cash flows that take into account the cost of capital, inflation expectations, currency and logistics risks, tax regime and project implementation schedule [8]. It is this combination of screening financial methods and full project analysis that provides the investor with a consistent picture of the investment attractiveness of the facility in the agricultural sector.

The Fisher formula is often used to calculate and control inflation-related costs:

$$(1 + n) = (1 + r)(1 + i) \quad (4.1)$$

Where n is the nominal value of investment capital;

r – real value of investment capital;

i – forecasted inflation rate

To reduce cash flows to a single time period in years, it is necessary to use discounting, namely, multiply the quantitative value of cash flows by its coefficient [1]

$$a_t = \frac{1}{(1+E)^t} \quad (4.2)$$

Where E is the discount rate;

t is the year.

In investor practice, simply focusing on the “rate of profit” as the only criterion is insufficient, and in the agricultural sector it is also problematic due to the seasonality of cash flows, high price volatility (raw materials, fuel, fertilizers), logistical constraints, currency risks, and regulatory shifts. One unaccounted factor can significantly change the expected results and call into question the achievement of even a risk-free return. Therefore, criteria are needed that correctly compare benefits and costs over time and allow for taking risks into account.

In world practice, the investment decision is based on a system of project performance indicators. The basic and most informative criterion is the net present value (NPV), which measures the increase in value for the investor taking into account the cost of capital. NPV has a number of advantages: it reflects the scale of the project, works correctly with different implementation periods, is consistent with the aim of maximizing value and allows you to directly incorporate risk into the discount rate. IRR/MIRR (with caveats regarding multi-IRR and comparing projects of different scales), payback period and discounted payback period (to

assess liquidity and return on invested funds), as well as the break-even point for operational control are used as auxiliary methods.

The calculation of NPV involves determining the discount rate and modeling the project's cash flows over the years (or seasons) of its life cycle. It is calculated using the following formula.

$$NPV = \sum_{t=1}^n \frac{B_t - C_t}{1+j}, \quad (4.3)$$

Where B_t – project benefits in year t ;

C_t – project costs in year t ;

i – discount rate;

n – project duration.

Depending on the target audience, cash flows to total capital employed (FCFF) discounted at WACC or to equity (FCFE) discounted at cost of equity are used. For nominal flows, the nominal rate is used; for real flows, the real rate is used, adjusted for inflation (via Fisher's ratio).

The specifics of the agricultural industry dictate certain methodological requirements for building a model:

- detailing seasonal revenues/expenses (sowing, harvesting, storage, logistics, insurance);
- explicit accounting of price scenarios for products and key inputs (fuel, fertilizers, feed);
- modeling of logistical “bottlenecks” (transit shoulders, port/border) and related costs;
- correct reflection of land rights/rental payments and agro-technological cycles;
- taking into account currency effects (if revenue/expenses are partly in foreign currency).

When comparing alternatives, it is advisable to focus primarily on the net present value: a project with a higher NPV provides a greater increase in value for

the investor, provided that the discount rate is correctly determined. The choice of the rate is critical: it should reflect the risk structure (country, industry, project specifics), inflation expectations, currency effects and the cost of both borrowed and equity capital; an error at this stage systematically distorts the assessment of efficiency. With different project life times or different periodicity of cash flows, the comparison should be made on an agreed time horizon - in particular, by reducing to the lowest common multiple of the periods (for example, for three-year and four-year projects - up to 12 years) [28]; it is additionally useful to check the consistency of the results through equivalent annual indicators and sensitivity/scenario analysis regarding key drivers (prices, yield/productivity, logistics, exchange rate, input costs). This approach ensures the reproducibility of calculations, the comparability of alternatives, and the scientific correctness of choosing an investment solution in the agro-industrial complex [28].

4.2. Assessment of investments in the agricultural sector of Ukraine

Among the tools for the development of the agricultural sector, one of the key ones is the increase in investments, because sustainable dynamics and long-term structural changes in the agro-industrial complex are possible primarily through investment activity and the accumulation of production and technical resources. A set of practical solutions in the field of investment directly increases the competitiveness of agro-industrial complex products through the renewal of fixed assets, modernization of technologies and the development of logistics infrastructure. At the same time, for a long period of time, investment activity in the agro-industrial complex of Ukraine was assessed as insufficient in terms of requests from both domestic and foreign investors, which limited the pace of technological renewal.

The structure of capital investments by type of economic activity shows that the main volumes were concentrated in industry, agriculture, forestry and fisheries, as well as in other types of economic activity: in 2018, their shares were 34.56%, 11.42% and 26.29%, respectively. In the inter-period section of 2010–2018, one of the highest growth rates of investments in fixed capital was demonstrated by industry (plus 71.6%). At the same time, the dynamics of the agricultural sector were the most indicative: the share of the agricultural sector in the structure of capital investments almost doubled - from 6.12% in 2010 to 11.42% in 2018, which occurred in parallel with the preservation of significant positions of industry and "other types of activity". Instead, construction, after growing in 2010–2016, gradually lost its share: from 17.3% in 2010 to 9.7% in 2018 (Table 4.1).

Table 4.1.

Capital investments by type of economic activity in Ukraine, billion UAH

Type of economic activity	Years						Deviation 2018 from:			
	2010		2015		2018		2010		2015	
Years	2010	2014	2015	2016	2017	2018	+ / -	%	+ / -	%
1	2	3	4	5	6	7	8	9	10	11
Total	189,1	219,4	273,1	359,2	448,5	578,7	389,7	67,33%	305,61	52,81%
Agriculture, forestry and fisheries	11,6	18,8	30,2	50,5	64,2	66,1	54,5	82,50%	35,95	54,38%
including agriculture, hunting and related services	11,3	18,4	29,3	29,3	63,4	65,1	53,7	82,61%	35,75	54,95%
Industry	56,7	86,2	87,7	117,8	143,3	199,9	143,2	71,62%	112,24	56,15%
from it the production of food products, beverages and tobacco products	8,7	13,5	13,5	21,3	18,9	30,2	21,5	71,32%	16,67	55,16%

Continuation of table 4.3

1	2	3	4	5	6	7	8	9	10	11
Construction	32,8	36,1	43,5	44,4	52,2	56,0	23,2	41,44 %	12,53	22,38 %
Wholesale and retail trade; repair of motor vehicles and motorcycles	18,9	20,7	20,7	30,0	33,7	51,8	33,0	63,59 %	31,16	60,12 %
Transport, warehousing, postal and courier activities	19,6	15,5	18,7	25,1	37,9	50,1	30,5	60,88 %	31,37	62,65 %
Temporary accommodation and catering	1,7	1,5	1,4	1,5	2,1	2,7	1,0	37,53 %	1,28	47,93 %
Other types of economic activity	47,8	40,6	71,1	90,0	115,0	152,2	104,3	68,56 %	81,08	53,29 %

Source: constructed by the author based on [20]

The change in the structure of capital investments is interpreted as a redistribution of resources in favor of sectors with higher expected returns and/or better contractual certainty. For the agro-industrial complex in the period under review, this was due to the expansion of export opportunities, increased processing, and modernization of the material and technical base. The total volume of investments in fixed assets in agriculture and industry for 2010–2018 provided an increase of 9.8%. At the same time, in 2018, the agricultural sector was distinguished by the highest dynamics: the increase in capital investments was 82.5% year-on-year (for some other types of activities, the growth was largely due to state support programs, as well as projects in the defense and information and telecommunications sectors). Thus, within the base period of 2010–2018, the agro-industrial complex appears to be one of the leaders in terms of the pace of actual development and increase in investment activity (Fig. 4.1).

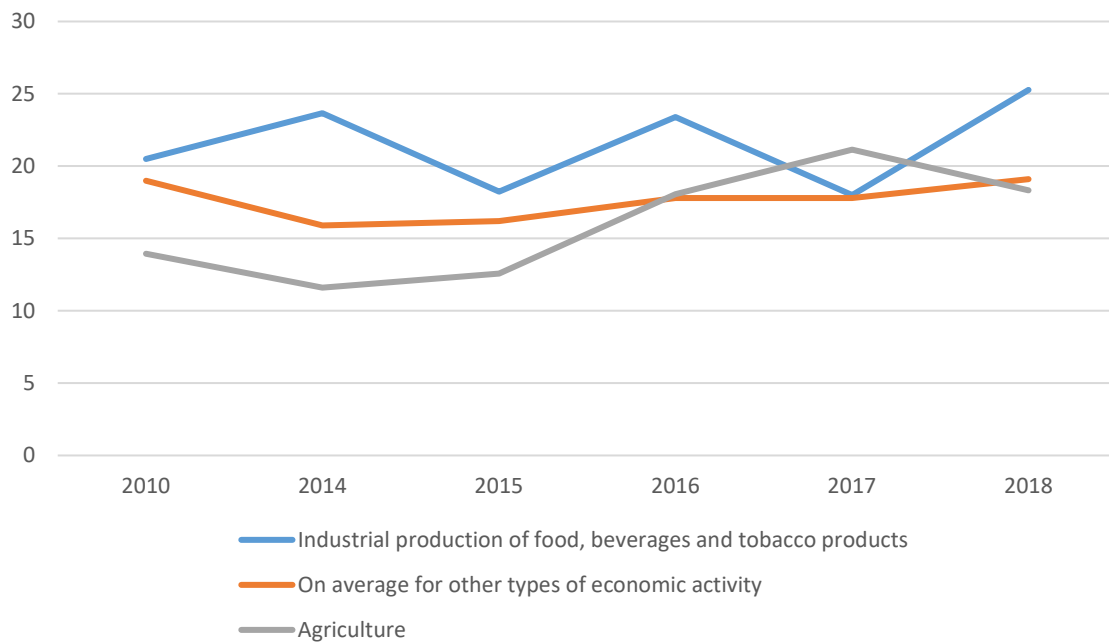


Fig. 4.1. Dynamics of the dependence of gross value added on capital investment in Ukraine

Source: constructed by the author based on [20]

The data shown in the figure indicate an unstable relationship between gross value added and capital investment: in agriculture, growth in 2014–2017 was replaced by a decline in 2018, while the average trajectory of the indicator was supported by the contribution of industry and some other activities. After a decline in 2014 (a period of political turbulence) and 2015 (escalation of the military conflict in the East), the aggregate level stabilized at around 19%, reflecting a partial recovery of investment activity in the context of structural shifts.

At the macro level, the greatest value for investment policy is in activities with a high multiplier effect, capable of accelerating the recovery of related sectors and the economy as a whole. These include agriculture and the broader agro-industrial complex: in the base period, the agro-industrial complex not only demonstrated leadership in the growth rate of capital investments, but also formed

additional demand for logistics, processing and trading services, strengthening inter-sectoral ties [16].

According to statistical data [20], the main investment processes were concentrated in the cultivation of grain crops (annual and biennial), livestock and food processing (production of sugar, sweet confectionery, oil and other fats; flour milling industry; dairy products; meat and meat products; chocolate and cocoa products). This structure reflects the movement of investments along the value-added chain - from raw material segments to basic processing areas.

The highest results for 2010–2018 were observed in crop production and livestock production: the growth in exports of agricultural raw materials was 36% and 59%, respectively, while in the segment of finished food products – about 8%. The increase in investment activity was significantly influenced by price dynamics: periods of volatility with a subsequent increase in quotations improved margins and, accordingly, investor expectations. In 2018, the profitability level was 17.9% – 4.5 pp. lower than in 2017; the decrease is mainly related to yield and price factors (table 4.2).

Table 4.2.

Commodity structure of agricultural and food exports

Code and name of goods according to UKTZED	Years					
	2010	2014	2015	2016	2017	2018
Total	9936,0	16669,0	14563,1	15281,8	17756,9	18611,8
I. Live animals; products of animal origin	771,4	1014,5	823,4	775,0	1108,8	1210,6
II. Products of plant origin	3976,2	8736,1	7971,5	8093,7	9215,7	9886,1
III. Fats and oils of animal or vegetable origin	2617,3	3822,0	3299,8	3963,0	4605,7	4496,5
IV. Prepared food products	2571,1	3096,3	2468,4	2450,1	2826,7	3018,6

Source: constructed by the author based on [20]

The profitability of operating activities increased from 8.1% to 18% over the seven-year period, but remained lower than in financial and insurance activities, as well as in wholesale and retail trade. Investment activity peaked in 2015, after which, due to military events in Ukraine, investment attractiveness significantly decreased; further, there is a gradual recovery of lost positions. The high attractiveness of the agricultural sector and a more balanced assessment of risks by investors contributed to the continuation of investments in industry and the agro-industrial complex, despite the general increase in uncertainty.

At the same time, part of the recorded growth in investments was due to nominal factors - high inflation and exchange rate fluctuations. Investment decisions were also negatively affected by the shortage of investment resources, socio-political instability in a number of regions, and the growth of the risk premium. It is worth noting the low purchasing power of the population: it simultaneously narrows the possibilities of selling products on the domestic market and forms price restrictions on labor; in total, these effects reduce investment incentives in processing segments.

Structural shifts are also observed in the dynamics of direct investment by type of activity. During the period under review, there was a decrease in investments in industry and construction (-57.6% and -38.4%, respectively), while the food industry showed an increase of 30.2%, and wholesale and retail trade – by 12.1%. Agriculture as a whole experienced a slight absolute decrease (-0.1 billion UAH), which in relative terms corresponds to -17.5%. The cumulative decrease in direct investment between 2010 and 2018 amounted to 8.2 billion UAH, or 26% of the total, which is confirmed by the data in Table 4.3.

Table 4.3

Direct investments (equity) in the economy of Ukraine by type of economic activity, billion UAH

Types of economic activity	Years						Deviation from 2018				
	2010		2015		2018		2010		2015		
	+	-	+	-	+	-	+	-	+	-	
Total	39,8	53,7	38,4	32,1	31,2	31,6	-8,2	-	-	-	-21,4%
Agriculture, forestry and fisheries	0,7	0,8	0,6	0,5	0,6	0,6	-0,1	-	0,0	0,0	-6,6%
Industry	16,6	17,7	12,4	9,9	9,9	10,5	-6,1	-	-1,9	-1,9	-17,8%
from it the production of food products, beverages and tobacco products	1,9	3,2	2,7	2,4	2,5	2,8	0,8	30,2%	0,1	0,1	1,9%
Construction	1,3	1,6	1,3	1,1	1,0	0,9	-0,4	-	-0,4	-0,4	-41,6%
Wholesale and retail trade; repair of motor vehicles and motorcycles	4,4	6,8	6,0	5,2	5,1	5,0	0,6	12,1%	-1,1	-1,1	-21,8%
Transport, warehousing, postal and courier activities	1,0	1,5	1,4	1,1	1,1	1,0	0,0	-0,8%	-0,4	-0,4	-37,6%
Temporary accommodation and catering	0,5	0,4	0,4	0,3	0,3	0,3	-0,1	-	0,0	0,0	-11,4%
Other types of economic activity	15,4	24,9	16,2	14,0	13,4	13,3	-2,1	-	-3,0	-3,0	-22,3%

Source: constructed by the author based on [20]

The current performance of investments in the agricultural sector is largely determined by non-price factors of the external environment: political and social stability, predictability of regulatory policy, inflation dynamics and exchange rate volatility. These factors significantly affect the risk appetite of both domestic and foreign investors; until institutional and macroeconomic imbalances are reduced, the investment potential of the sector will remain partially realized. Under these conditions, it is advisable to direct investments to technological modernization of the agricultural complex and the development of related infrastructure links (logistics, storage, processing), combining this with risk reduction tools - insurance of production and price risks, the use of hedging contracts, diversification of financing sources, increased data transparency and contractual discipline. Such a combination enhances investment attractiveness, expands the range of potential investors and creates the prerequisites for the accelerated development of the agro-industrial complex of Ukraine [14].

4.3. Factor analysis of the efficiency of the investment process

Investment activity is a multidimensional process, the effectiveness of which is formed under the influence of a wide range of determinants. For effective management of both the investment process itself and its productivity, it is necessary to identify and systematically take into account factors that can change the expected results of investments. From an economic point of view, factor analysis of the effectiveness of investment activity serves as a methodological basis for building a logically justified investment policy aimed at increasing the return on invested capital and the stability of cash flows.

The investment efficiency factor is understood as a causal factor that determines the conditions of the investment process, its dynamics and expected results. Efficiency indicators (NPV, IRR/MIRR, payback period, return on capital, profitability of operating activities, etc.) are indicators of the impact of a

set of factors, and not the factors themselves. Separating factors from indicators allows you to avoid confusion between causes and indicators and correctly interpret changes in performance.

Given the hierarchy of determinants, it is advisable to structure the field of factors into three levels: microlevel (internal characteristics of the enterprise and the project: technology, cost structure, quality of management, access to financing, contractual discipline); mesolevel (industry and regional conditions: intensity of competition, logistical accessibility, depth of processing, market infrastructure, labor resources); macrolevel (institutional quality, monetary and fiscal stability, law enforcement, foreign economic conditions). Such a division makes it possible to localize points of managerial influence and avoid mixing levels of analysis in one indicator.

In the scientific literature, the problem of factor analysis is covered fragmentarily: the classifications of factors vary, as do the approaches to assessing the strength of their impact on investment performance both for individual projects and at the level of the overall investment process. With this in mind, it is advisable to distinguish between two types of factors: simple (primary) and complex (complex). Simple factors have a direct, single-channel impact (for example, the rate of capital employed, the price of a key resource, the duration of the production cycle). Complex factors are aggregates of several simple factors (for example, “investment climate” or “logistical accessibility”) and for analytical purposes require decomposition into simple components, otherwise there is a risk of double counting or incorrect attribution of effects [13].

Methodologically, factor analysis should take into account the problems of endogeneity (mutual influence of factors and results), multicollinearity (overload by interrelated variables), and different time responses of indicators. To minimize these risks, it is correct to combine quantitative procedures (regression and decomposition models, index analysis, sensitivity "what-if") with industry expertise, clearly fixing assumptions and limits of interpretation.

At the macro level, the efficiency of the investment process is determined by a system of complex factors that accumulate the influence of many simpler determinants. First of all, this concerns the resource availability of investments - the availability of both financial capital and investment goods; analytically, this is monitored through the share of investments in GDP or gross value added of the sector, the availability of long-term financing, the cost of capital and the dynamics of import/export of equipment. No less important is the concentration of investments by regions and industries: the spatial and industry distribution forms the “growth poles” and determines where exactly capital investments have the greatest multiplicative effect; this is measured by concentration indices, shares of leading regions and “corridors” of differentiation.

The broader construct of the investment climate encompasses natural-climatic and geographical prerequisites (agro-climatic zones, access to water and land, demographic structure of the workforce), macroeconomic dynamics (inflation, exchange rate volatility, fiscal and external balances), as well as strategic and tactical state policies, including monetary and foreign exchange policies and attitudes towards foreign investors. The practical assessment of this block is based on government efficiency indices, capital movement regimes and a network of investment protection agreements. It is important to take into account industrial and production potential (engineering output, capacity utilization, demand structure for investment goods) and socio-political stability, which is reflected by political risk indices, security indicators and migration flows. The state of the financial system – depth of lending, market capitalization, length of the yield curve, access of SMEs to credit and leasing – determines the transmission channels of investment decisions to the real sector, while labor market parameters (unemployment, skill structure, share of STEM/agricultural specialties) directly affect capital productivity.

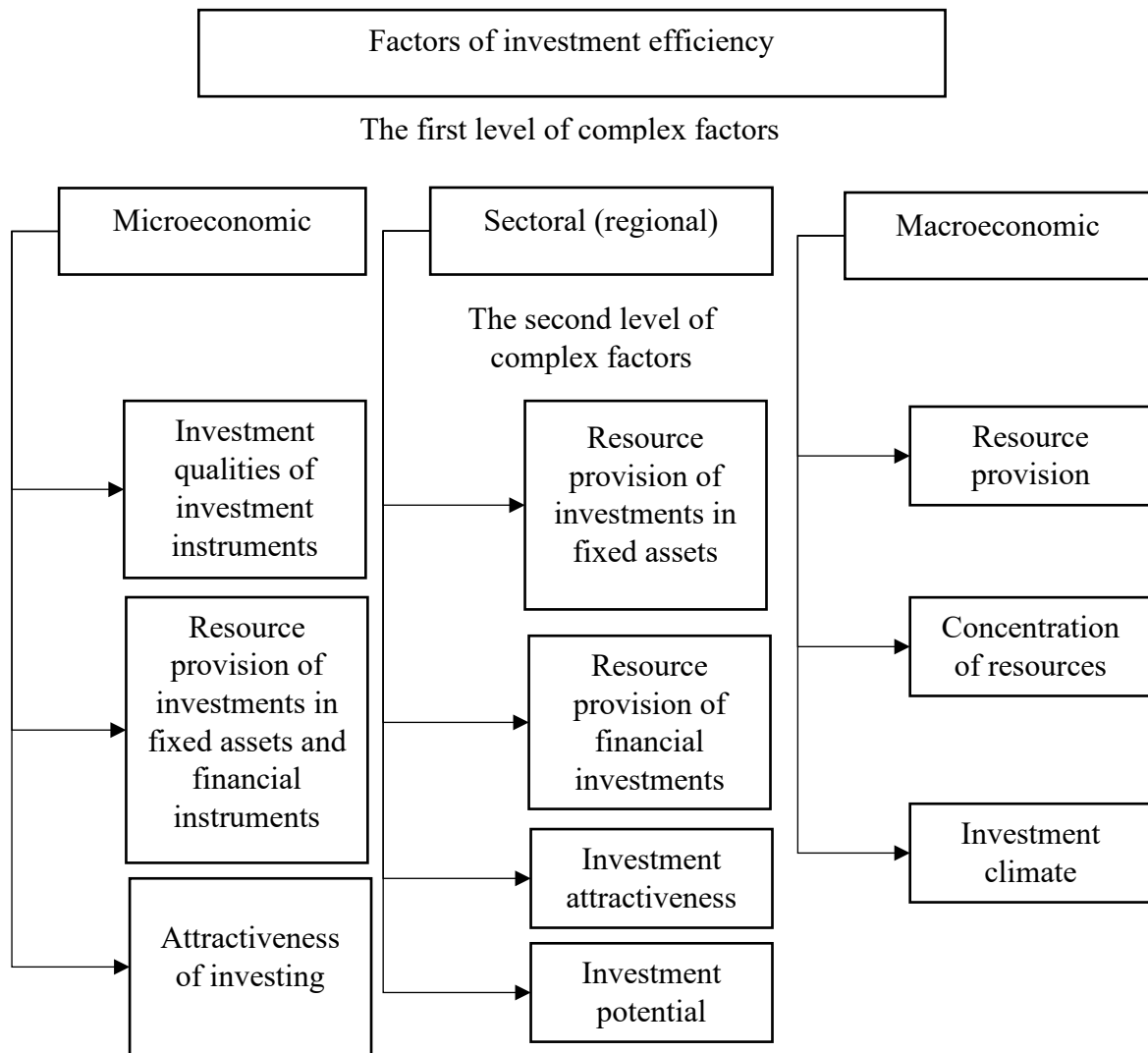


Fig. 4.2. Levels of the system of investment efficiency factors

Source: constructed by the author based on [11]

Fiscal policy sets the tax burden and investment incentives; this is assessed through effective rates, the availability of investment benefits, and the stability of fiscal rules. The capacity of the domestic market and the availability of production resources determine the limits of project scaling; demand, elasticity, and logistics cost indices are used analytically. The infrastructure circuit – energy, transport, communications, housing and communal networks – is measured by indicators of logistical efficiency, network losses, port and border crossing capacity, and the level of digital coverage. Finally, integration into foreign economic relations and the regulatory and legal field (the rule of law, predictability and costs of contract

execution, the extent of corruption and shadow economy) determine the predictability of the rules of the game for capital. For correct factor analysis, each of these complex constructs should be decomposed into simple, measurable variables to avoid double counting of effects and ensure valid identification of cause-and-effect relationships in subsequent calculations [13].

At the meso level, the effectiveness of investment activity is determined primarily by the ability of an industry or region to accumulate resources for investment in fixed assets, including the real estate market and specialized infrastructure. The rational distribution of financial resources between capital market instruments is also important: when attraction through debt and equity instruments occurs according to transparent rules and at an acceptable cost, the intensity and quality of capital investments increases. The overall “attractiveness” of an industry or region reflects the balance of expected returns and risks, taking into account logistical accessibility, depth of processing, availability of services and the business environment; along with this, the existing investment potential also matters - market capacity, human resources, supply and consumption network.

At the micro level (company level), the ability to generate a sufficient amount of investment in fixed assets and access to financing from domestic and foreign investors; the quality of investment decisions and methods of their implementation (product competitiveness, resource availability of production, cost discipline); as well as the market investment attractiveness of the issuer itself and its securities, which is determined by the transparency of reporting, corporate governance, and stability of cash flows, are decisive.

The interaction of factors is two-way: micro-level decisions of a large number of enterprises are aggregated into industry and regional patterns, forming indicators of attractiveness at the meso level, while a favorable industry-regional environment enhances the investment opportunities of individual companies. This mutual determination, in turn, affects the indicators of the state's investment

climate, reflecting the feedback between the effectiveness of the investment process and the institutional environment. A schematic representation of the relationships between micro-, meso- and macro-level determinants is shown in Fig. 4.3.

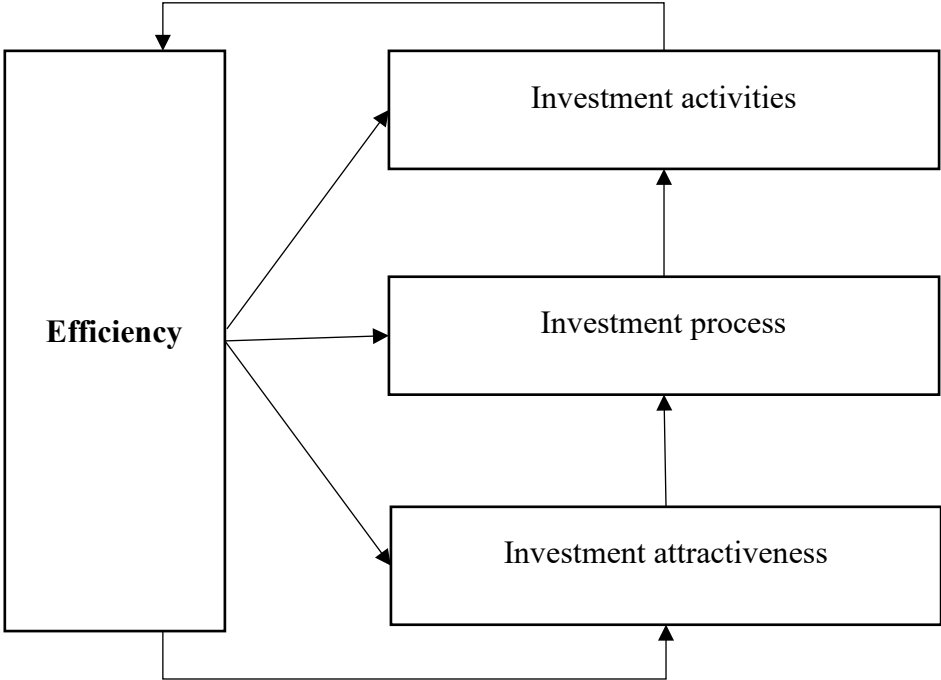


Fig. 4.3. The logic of the relationship between investment attractiveness factors and investment efficiency

Source: constructed by the author based on [3]

Correct distinction of concepts is critical for factor analysis. Scientific texts often confuse the “investment attractiveness” of lower levels (industry, region, enterprise) with the “investment climate”, which describes the aggregate conditions for investment at the macro level – economic, financial, social, legal, etc. The investment climate forms the general background for decision-making both in regions and at the level of individual entities, while the attractiveness of a specific object may deviate from this background due to internal advantages or disadvantages (quality of management, contractual base, technological level) [8].

The core of the investment climate should include the production and investment capabilities of the economy (output structure, capacity of demand for investment goods, state of the labor market), political and legal environment (consistency and predictability of legislation, effectiveness of law enforcement, stability of the national currency and availability of targeted incentives for investment), parameters of the financial system (depth and activity of banking and non-banking intermediation), state of foreign economic relations (rules for foreign investors, institutions of special regimes) and investment capabilities of households (development of mortgages, tax loyalty to individual investors). The combined impact of these components determines the risk profile and expected return on capital at the national level.

State policy is declared to be oriented towards improving the investment climate and increasing investor confidence; the relevant program documents outlined the vectors of institutional changes and stimulating innovative activity. At the same time, assessing the actual results of such programs requires a separate quantitative analysis with a clear time frame and source base; within the framework of this subsection, we focus on the methodological separation of the categories of “climate” and “attractiveness” and on their reflection in the subsequent factor model [8].

The investment attractiveness of regions should be interpreted as an integral indicator that reflects the conditions for placing capital within a region or industry and summarizes the level of development of investment infrastructure, the ratio of demand and supply of investment goods and the factors on which the expected return on assets depends. The assessment of such attractiveness should be based on several complementary blocks: the general level of socio-economic development; the state of investment infrastructure (logistics, financial intermediation, real estate market, business services); socio-demographic characteristics (quality and quantity of labor resources); economic parameters (production structure, GRP/GVA dynamics, investment intensity); maturity of

commercial relations (density of business ties, contractual discipline, access to sales markets); as well as natural and ecological conditions that determine the limitations and advantages of management.

In essence, investment attractiveness and investment activity are causally linked: the former forms a set of incentives and constraints for the latter, while the implemented investment activity has a negative impact on attractiveness, improving the quality of infrastructure, human capital and market institutions. Therefore, the creation and maintenance of favorable conditions at all levels - from the enterprise to the region and the state - is the basis for increasing the efficiency of the investment process.

For empirical research of impacts, it is advisable to use statistical methods of both descriptive and analytical levels. Correlation-regression modeling allows to assess the relationship between the dynamics of capital investments with indicators of activity of investment entities and other predictors (income, infrastructure indices, labor market parameters). Factor analysis or principal components can be used to isolate the main determinants and reduce dimensionality; if necessary, to construct a composite index of investment attractiveness with normalization of indicators, checking for multicollinearity and testing the stability of weights. This approach ensures the reproducibility of assessments and allows to move from general statements to quantitative measurement of the influence of individual factors on the effectiveness of the investment process.

One of the key determinants of investment performance in production is the condition and use of fixed assets. The quality of the material and technical base directly affects productivity, cost, stability of cash flows and the risk of downtime, and therefore the effectiveness of the investment process as a whole. For the

agricultural sector, this has additional specifics: seasonality of work, sensitivity to logistics and pricing of energy carriers, dependence on the technical readiness of the fleet of machinery and equipment.

The purpose of the economic analysis of fixed assets is to establish the level of provision and intensity of their use, assess the technical condition and reproduction dynamics (renewal, retirement, depreciation), identify profitability reserves and prepare investment decisions (CAPEX, leasing, modernization) [8]. The information base consists of accounting registers and financial reporting (forms on assets, capital investments, depreciation), inventory cards and descriptions, leasing and rental agreements, technical passports, statistical reporting, telemetry/operational accounting data (engine hours, hectares), internal repair and maintenance regulations.

Methodologically, it is advisable to rely on the following principles. First, fixed assets are long-term assets with a useful life of more than one year; the costs of their acquisition and modernization are reflected through capitalization and systematic depreciation throughout the useful life (the principle of accrual and correspondence). Second, the cycles of physical and moral wear and tear rarely coincide with the dynamics of replacement value: price shocks in the market of equipment and building materials, exchange rate fluctuations and supply disruptions can cause “windows” of increased risk, when the postponement of renewal leads to an increase in repair costs and loss of productivity. Third, the efficiency of use depends on the type of assets, their participation in the technological process and the organization of work (technical readiness factor, downtime structure, MRO discipline), therefore, the assessment should be

differentiated by asset groups (machinery and equipment, transport, buildings, storage facilities, energy infrastructure) [8].

For quantitative assessment, a system of indicators is used that reflects the availability, reproduction and return on capital: capital equipment and technical equipment (cost of equipment per employee/hectare), renewal and retirement rates, wear and tear and suitability rates, CAPEX/depreciation ratio (do investments exceed current wear and tear), return on capital and capital intensity (revenue/average annual cost of equipment and its inverse), profitability of fixed assets, load and capacity utilization rates, average age of the fleet. For agricultural enterprises, it is important to additionally analyze specific costs per hectare and/or ton, hours worked per unit of equipment, fuel efficiency, and losses from downtime during “peak” working windows.

In the factor analysis framework, these metrics are combined with financial indicators (EBITDA, margin, working capital) and operational drivers (yield/productivity, logistical leverage, input resource prices), which allows us to quantitatively assess the contribution of each block to changing the efficiency of the investment process and justify decisions on modernization, replacement, or optimization of the structure of fixed assets [8].

In the scientific literature on the economic analysis of the material and technical base, various approaches are proposed for choosing a strategy for the development of MTZ, assessing the quality and technical condition of assets. The differences between the approaches mainly concern the methodology for analyzing fixed assets: the structure of indicators, methods of their normalization and methods of factor decomposition. In general, the study is structured into two consecutive phases. First, the analysis of the provision of fixed assets of the

business entity: the dynamics and structure of assets, technical condition, reproduction processes (renewal/retirement), wear and tear and suitability. Second, the analysis of the efficiency of use: measuring the return on production capacity, productivity and profitability with subsequent factorial decomposition of changes in key indicators.

The methodological basis of this approach is laid in the works of domestic researchers: in particular, E. Mnykha - on the organization of the analysis of the main provision, and N. Barabash - on the assessment of the qualitative condition of fixed assets and the use of indicators of the initial and residual value [14]. In practice, the core of analytics is a system of indicators that allows: (i) to assess the efficiency of the use of labor resources; (ii) to diagnose the current state and reproduction dynamics; (iii) to identify reserves for increasing output and reducing costs; (iv) to choose appropriate investment methods (CAPEX, modernization, leasing) and capacity management.

In this context, it is advisable to detail the interpretation of return on assets as one of the basic criteria for the efficiency of fixed assets. Return on assets measures the volume of manufactured (or sold) products in terms of the average annual cost of fixed assets; its level is directly influenced by: capacity utilization and technical readiness, duration and rhythm of the production cycle, technological productivity of equipment, asset structure (share of the active part), as well as price parameters of output. A decrease in cost in itself primarily changes profitability; it can indirectly increase return on assets only through an increase in the physical volume of output (at a constant cost of fixed assets) or through a revaluation of the price structure/product portfolio. Therefore, in the factor model of return on assets, it is advisable to distinguish between volume-technological

determinants (productivity, downtime, maintainability, technical readiness coefficient) and price/cost effects (product price indices, revaluation of the cost of goods sold) in order to avoid erroneous conclusions. The relevant analysis steps are illustrated in Table 4.4.

Table 4.4

Table of stages of calculating the efficiency of an enterprise

Stage	Features	Ways	Conclusion
Conducting an objective analysis of the existing material and technical base of the enterprise			
Research on dynamic indicators of organizational structure change	Structure of fixed assets division	Analyses, namely: horizontal and vertical	Conclusion in the form of a provision ratio
Research into changes in the physical and technical conditions of existing assets	Coefficients characterizing the modernity of material and technical support	Research in comparison	Conclusions on the calculation of depreciation charges for physical and moral wear and tear
Conducting research on the effective use of logistics			
Stock performance analysis	Capital intensity; capital leverage; capital return;	Comparative analysis in different areas	Valuation of fixed assets;
			Amount of profit per unit of resources
Research on the use of existing equipment	Analysis of the fractions of equipment used	Comparison analysis	Impact on the use of fixed assets
Research into the effective use of available enterprise space	Working time use funds; equipment utilization rates	Conducting various types of analyses	Assessment of production capabilities of existing equipment

Sources: constructed by the author based on [14]

In addition to the return on investment, it is advisable to use the transport capacity indicator, which reflects the intensity of cargo operations in relation to the land area of the enterprise and indirectly characterizes the load on the fleet of equipment and logistics. It is rational to define transport capacity as the ratio of the annual volume of transported cargo to the total area of agricultural land of the enterprise; in the practice of farms, approximate values are about 70–95 tons per 1 ha per year (with a comparable structure of production and logistics) [2]. Such normalization by area allows you to compare enterprises of different scales, assess the adequacy of transport infrastructure and plan the need for rolling stock.

The volume of necessary transport operations follows from technological maps and should take into account not only production transportation (seeds, crop protection products, fertilizers, fuel, harvest removal), but also related logistics processes, in particular, fuel supply, intra-farm construction and maintenance of social infrastructure. To correctly account for multi-stage movements, a recurrence coefficient (cargo turnover multiplier) is used, which shows how many times an average ton passes through the transport system to final consumption. If, conditionally, fuel would flow directly from the plant to the tank of the equipment, the coefficient would be 1; in practice, through the chain “plant - oil depot - enterprise - machine” the value increases. According to the results of applied calculations, the recurrence coefficient is approximately 2.3–2.5 for grain, 1.7–2.0 for tubers, 1.5–1.6 for fruit, about 1.75 for mineral fertilizers, etc. [2]. Including this coefficient in planned and actual calculations makes it impossible to underestimate transportation needs and costs.

The freight turnover of an enterprise is determined as the product of the volume of freight transportation by the average transportation distance; it is advisable to set the distances based on the analysis of reporting data and routing for the planned period. The value of freight turnover is determined by the scale of the farm (land area, crop structure), yield parameters and the density of storage/processing points. On this basis, the need for types of transport and their

configuration is formed: passenger cars (operational functions), freight and light-duty road transport, tractors with trailers, as well as specialized transport units (in particular, milk and pipelines). The criterion for choosing rolling stock and a logistics scheme is to minimize the full cost of transporting a unit of cargo, taking into account the repeatability coefficient, seasonal peaks and downtime, which directly affects the efficiency of using fixed assets and the overall effectiveness of the investment process [2].

The logistics of the enterprise is a significant driver of the efficiency of the investment process: it is it that converts the material and technical base into stable cash flows. The choice of the type of transport should be based on the structure of cargo flows and transportation shoulders. For long-distance trips with large consignments, it is advisable to use heavy-duty trucks: consolidation of shipments and better fuel efficiency reduce the cost of transportation by approximately 20% compared to fragmented trips. For intra-farm movements (transportation of seeds, crop protection products, fertilizers, removal from the field to the threshing floor/elevator on short shoulders), tractor-trailers with trailers are optimal, while for medium and short distances with small consignments, the use of light-duty vans and pickup trucks is justified. A rational combination of these solutions minimizes costs per ton-kilometer, reduces downtime and increases fleet turnover.

A key systemic limitation for agro-industrial enterprises is the slow renewal of the fleet. Aging equipment increases repair and fuel costs, reduces the technical readiness ratio, and exacerbates the risks of downtime during peak campaign “windows.” This can be overcome through a combination of financial and operational solutions: engaging in leasing and seasonal outsourcing of transportation; routing taking into account the cargo repeatability ratio; increasing the load factor (backhaul, combined flights); implementing preventive maintenance and telematics to control fuel and driving style; coordinating work schedules with technological maps to avoid “bottlenecks.”

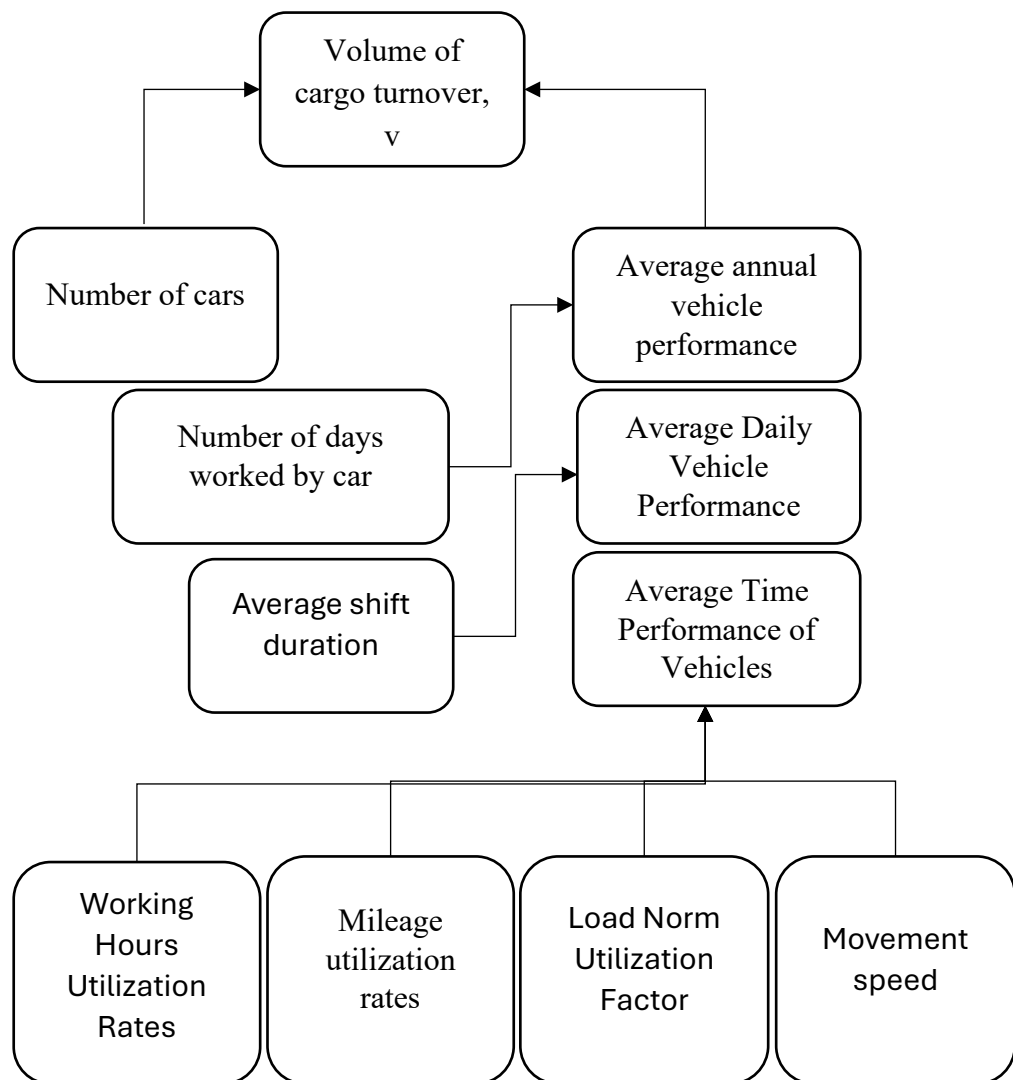


Fig. 4.4 Structural-logical factor model of cargo turnover

Source: constructed by the author based on [18]

The assessment of the efficiency of the fleet should be based on a system of indicators that reflects the rational use of time, mileage and cargo capacity: technical readiness coefficient; useful mileage and empty trips; average vehicle turnaround time and loading/unloading time; average load factor; fuel consumption per 100 km and per ton-kilometer; cost of transportation of a unit of

cargo; cargo turnover in ton-kilometers. A structured visualization of such metrics is presented in the figure (see Fig. 4.4., [18]); its use as an operational panel allows you to identify reserves (routes, warehouses, fleet), justify investment decisions on equipment renewal and directly increase the return on fixed assets [18].

The presented diagram reflects the cascading dependence of cargo turnover volume V from the parameters of the fleet and the intensity of its use. At the upper level, the result is determined by the number of vehicles and their average annual productivity. Annual productivity is decomposed into daily (how much cargo a vehicle carries per day) and the number of days worked, and daily productivity is decomposed into the average shift duration and average hourly productivity. At the basic level, average hourly productivity and, accordingly, the entire chain are formed by operational factors of time, mileage and load capacity: the coefficient of use of working hours (the share of time in motion and under load), the coefficient of use of mileage (the share of useful kilometers), the coefficient of compliance/use of load norms (the average load level) and the actual speed of movement on routes. Thus, the model shows how changes in the “lower” operational links multiply into the “upper” results – from an hour to a day, from a day to a year, from one vehicle to the entire fleet [24].

For the purposes of factor analysis, it is important not only to record the nominal cargo turnover, but also to diagnose the sources of its variation throughout the chain: fleet management (composition and size), work organization (schedules, shift duration, downtime under loading/unloading), operational discipline (useful mileage, load level), as well as route and logistics conditions (speed and shoulders of transportation). It is through these controlled variables that the enterprise directly affects the efficiency of using fixed assets

and, ultimately, the effectiveness of the investment process in the agricultural and industrial complex: increasing the coefficients of time, mileage and cargo norms, even without changing the size of the fleet, gives a multiplicative increase in annual cargo turnover and reduces the cost of logistics, which increases the return on investment in equipment and infrastructure [24].

4.4. Reserves for increasing the efficiency of investment management

The scientific literature provides various definitions of the concept of “investment process management”. Within the framework of this study, the concept is defined as a holistic system of principles, institutions and procedures that ensure the transition of an investment idea to an implemented project with predictable results. The system covers the formation and selection of investment opportunities, identification and assessment of risks, determination of the cost of capital, planning and financing, contracting, operational support, monitoring and final assessment of effectiveness at all stages of the project life cycle. The toolkit includes market mechanisms for attracting resources (equity, debt instruments, leasing, grant financing), organizational and management regulations (portfolio policy, phased “gates”, KPI/OKR, risk registers) and methods of financial and economic analysis (NPV, IRR/MIRR, scenario and sensitivity analysis, stress-testing). In this interpretation, investment process management is viewed as a managed architecture of decision-making at the enterprise level and interaction with the capital market, aimed at increasing the efficiency and sustainability of investment decisions (Fig. 4.5).

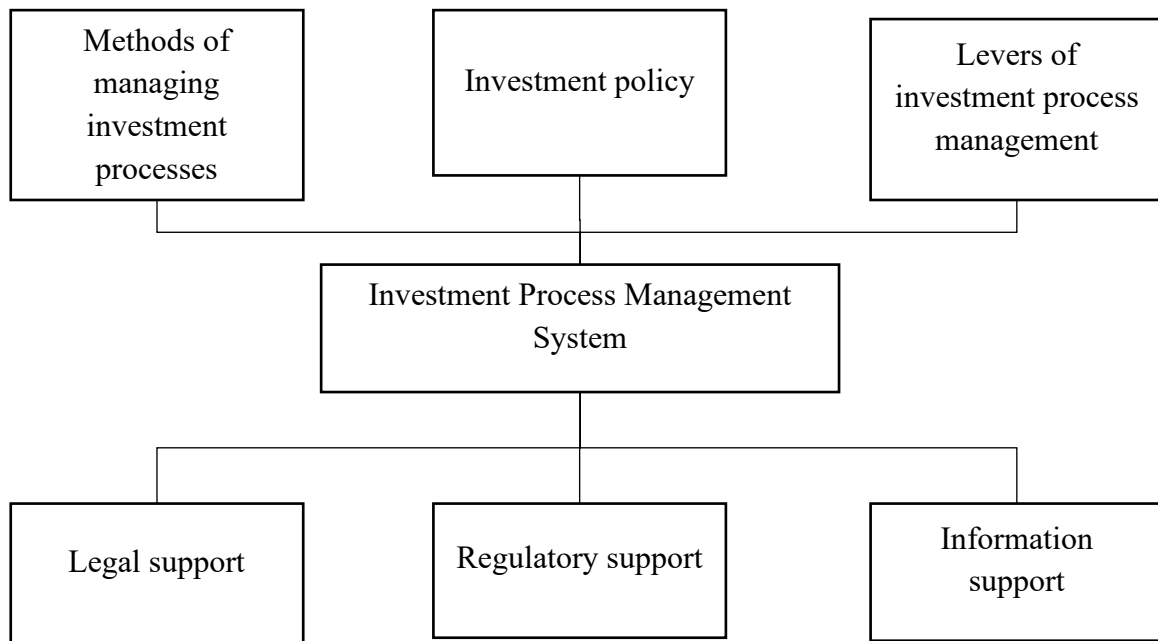


Fig. 4.5. Structure of the investment process management system

Source: constructed by the author based on [3]

To increase the effectiveness of the investment process management system, it is advisable to more actively involve tools that are not fully used in the agricultural sector. One of the key such tools is indicative planning. Within the framework of this study, indicative planning is defined as a method of state influence on economic processes through the recommendatory formulation of development goals and priorities and through the adjustment of legal and economic regulators, including financial incentives that direct the behavior of market entities in the desired direction. Unlike directive planning, the indicators of the indicative plan are not mandatory for implementation; their effectiveness is ensured by the systematic adjustment of institutional rules and incentives (taxes, loans/guarantees, government orders, sanctions for violations, antitrust restrictions, quotas, etc.) [12].

The agricultural sector is particularly suitable for an indicative approach due to the presence of coordination failures, seasonality, logistical bottlenecks and externalities (storage, land reclamation, biosecurity, energy efficiency). Since

public policy objectives (food security, export diversification, regional employment) do not always coincide with the private goal of profit maximization, indicative planning makes it possible to “level” the incentive field: through tax and credit benefits, state guarantees, targeted orders, as well as through preventive supervision and sanctions for anti-competitive practices. In this way, market outcomes are corrected in favor of socially significant goals without destroying market equilibrium mechanisms.

For agricultural enterprises, the practical consequence of indicative planning is the formation of a portfolio of investment projects that have both private profitability and public utility: modernization of storage and transportation, implementation of precision agriculture, irrigation and drainage projects, energy-saving technologies in livestock farming, processing with increased added value. The presence of agreed "beacons" and incentives reduces risks for private capital (through guarantees, subsidized rates, priority access to infrastructure), which, in turn, increases the efficiency of investment management at the enterprise level and accelerates the implementation of projects relevant to the goals of sectoral development.

The most effective tool for coordinating investment activities, capable of uniting many market participants into a single contractual architecture, are tender agreements (bidding). A tender is understood as a procedure for placing an order for the implementation of a project (mainly construction or infrastructure) through competitive selection of a contractor according to the criteria of quality, terms, price and qualifications specified by the customer [10]. The decision to hold a tender is made if there is confirmed financial security or investments for the implementation of the project (bank guarantees, budget allocations, estimates), which minimizes the risk of interruption of work.

The tender may cover the entire project or parts of it, when the scope of work is significant (for example, the construction of a complex of industrial facilities). In such a configuration, the general contractor, determined by the

results of the tender, often forms a network of subcontractors to perform specialized work, becoming the “customer” for individual lots. As a result, a multi-level structure of interaction arises – customer - general contractor - subcontractors - suppliers – which requires clear regulation of responsibility, quality control points, schedules and budgets (Fig. 4.6).

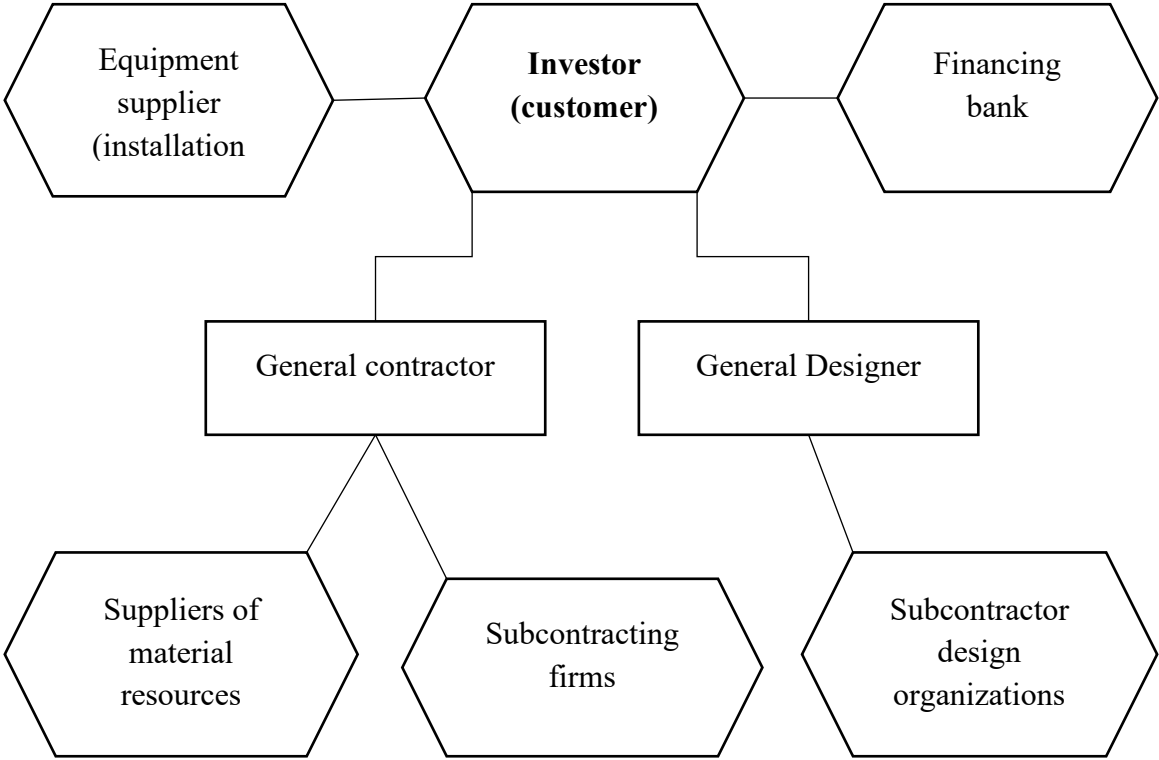


Fig. 4.6. Scheme of interaction between investment process entities

Source: constructed by the author based on [33]

The use of tender procedures in agricultural enterprises opens up additional investment management opportunities: competitive selection of price and technical solutions is ensured, information asymmetry regarding the quality of contractors is reduced, discipline of deadlines and budgets is increased due to contractual liability mechanisms, and access to innovations appears through the participation of specialized companies. At the same time, requirements for customer preparation are increasing: a correctly formulated technical task, a justified estimate, transparent criteria for evaluating proposals, a risk management plan and change control regulations are required. Under such conditions, the

tender acts as a tool for converting investment decisions into results - from preparation and selection to implementation and acceptance of works - and contributes to increasing the efficiency of investment activities in the agro-industrial complex [17].

Increasing the manageability of the investment process inevitably leads to a complication of its organization, which, however, is a positive effect: access to expanded tools makes it possible to implement projects that would normally remain at the concept level. The use of such "organizational reserves" provides advantages over traditional approaches to expanding production, as it improves the predictability of timing, cost and quality of results.

For systematic control of the implementation of investment projects, it is advisable to use budgeting. Within the framework of this study, budgeting is considered as an interconnected system of planning and approving budgets, ongoing monitoring of their implementation, analysis of deviations "fact/plan" with subsequent adjustment and making management decisions. Such a system serves as a tool for ensuring financial stability and harmonizing the goals of the enterprise on the operational and strategic horizons [18].

The practical implementation of budgeting in the field of investment management involves: synchronization of CAPEX and OPEX with the project roadmap; formation of responsibility centers and delimitation of powers; calendar-network planning with control points; cash plan and cash flow forecast; regular plan-fact-analysis with classification of deviations (price, volume, productivity, design changes), as well as escalation rules and decision-making on corrective actions. It is advisable to use sliding budgets and scenarios (baseline/optimistic/stress), which increases the resilience of the project portfolio to external shocks.

Aligning tender procedures with the budgeting process creates a single, manageable investment architecture: requirements and estimates captured at the procurement stage are fed into performance control, and the results of the plan-

fact analysis are fed back into the decision-making system for scheduling, budgeting, and technical decisions. This integration increases transparency, accountability, and efficiency of investment management at the enterprise level.

In Ukrainian agricultural enterprises, the introduction and integration of budgeting into operational processes is still uneven: full-fledged systems are more often operated in large corporate structures (agricultural holdings, integrated processing companies), while medium and small farms implement them fragmentarily. Key barriers lie in the area of management practices and data: insufficient awareness of management regarding the role of budgeting in the investment cycle; identification of management accounting with tax/financial accounting (which leads to delayed and aggregated information); unformed processes for collecting and circulating primary operational data; low level of automation (ERP/MES/production cost accounting), which complicates plan-fact analysis in real time. Organizational factors are added: unclear distribution of responsibility centers, lack of budget adjustment regulations, weak culture of deviation and risk management.

In this context, budgeting should be considered as a basic investment management tool that provides a link between strategic goals, resource constraints and operational plans [23]. Its implementation increases the predictability of cash flows, disciplines costs, reduces liquidity risk and creates a transparent field of responsibility: goals are decomposed to the level of units and projects, and deviations "fact/plan" are promptly identified and eliminated. In conditions of deteriorating profitability, it is budget regulations (limits, adjustment triggers, cash plan) that make it possible to maintain margin and solvency, timely identify funding deficits, prevent non-target payments and increase staff motivation to achieve set performance indicators [21].

The focus of modernization should be shifted from declarative "budget management" to building a managed loop: management accounting synchronized with production analytics (cost by subdivision, calculations per hectare/head/ton);

standards of plan-fact analysis with classification of deviations (price/volume/performance/design), escalation rules and corrective actions; financial responsibility centers and integration of CAPEX/OPEX budgets into project roadmaps; gradual automation (ERP + production accounting modules, telemetry, treasury scenarios). This approach transforms budgeting from a formal function into an effective mechanism for increasing the efficiency of investment management in today's uncertain environment.

A separate direction for increasing the effectiveness of investment management is a more rational and complete use of the enterprise's fixed capital. Indicators of investment activity and financial stability largely depend on the level of provision with fixed assets and on how effectively these assets are converted into output and cash flows. In work, fixed capital refers to tangible assets that are used in the production process for more than one year (or over the duration of the production cycle, if it exceeds one year) and transfer their value to products through depreciation [26]. In modern conditions, maintaining competitiveness requires maximum capacity utilization, eliminating "bottlenecks" and cost discipline - that is, such management of fixed assets that increases profit per unit of assets involved.

Identifying efficiency reserves involves a comprehensive analysis of both production factors and asset utilization indicators. The methodology combines natural and cost metrics: the level of capacity utilization and technical readiness, return on capital in natural and cost terms, return on capital and capital intensity, production dynamics and asset structure, labor productivity, as well as reproduction indicators (renewability, disposal, wear and tear rates). This combination allows you to localize the causes of inefficiency - from downtime and maintainability to non-compliance of the fleet composition with technological requirements - and translate them into manageable investment decisions.

In scientific and applied practice, two basic approaches to increasing the return on fixed capital are distinguished: extensive and intensive. Extensive is

based on an increase in capacity and the physical volume of assets; intensive is based on increasing the productivity of existing assets by reducing costs per unit of production, reducing losses in transportation and storage, reducing downtime, optimizing loading, and improving technologies [22]. Given the limited investment resources and the high cost of updating the fleet in the agricultural sector, it is the intensive approach that has the best return in the near future: it requires less capital investment, has a shorter payback period, and at the same time increases the efficiency of using the existing material and technical base.

Practical steps in this direction include timely replacement of physically and morally worn-out machines and equipment, comparative assessments of domestic and imported solutions taking into account the full cost of ownership, implementation of advanced technologies in crop and livestock production, construction of a preventive maintenance system based on telemetry, as well as regular technical audits of engineering infrastructure (electricity, heat, water supply, storage). It is appropriate to involve the best international practices - standards of planned and preventive repairs, methods of assessing the residual resource, lean approaches to minimizing losses in logistics and processing - adapting them to local production conditions [25].

Increasing the efficiency of investment management is achieved not only through expanding the tools (indicative planning, tender procedures, budgeting), but also through systematic work with fixed assets: accurate measurement of returns, timely reproduction, technological modernization and operational improvements. Such a combination allows for the implementation of an intensive growth model, strengthens competitiveness and reduces the capital intensity of output growth, ensuring more sustainable results within the framework of a modern investment strategy of an agricultural enterprise.

To modernize fixed assets, an enterprise needs stable access to capital. In conditions of increased risk and limited supply of external financing, it is advisable to consider instruments that reduce one-time capital expenditures and

smooth cash flows. One of such instruments is leasing, which in this work is interpreted as a form of financing the use of an asset with the distribution of rights and obligations between the parties: the lessor acquires the asset and provides it for use to the lessee for regular payments for a specified period with or without the possibility of further redemption. Unlike classical leasing, leasing combines the use of property with a credit element (return of the value of the asset and remuneration to the financing party) and, thus, acts as an alternative to direct purchase on credit [42].

Several organizational forms are relevant for the agricultural sector: financial leasing (with the economic transfer of significant risks and rewards of ownership to the user and, as a rule, a redemption option at the end of the term), operating leasing (shorter/medium term of use without the transfer of major risks and rewards), sale-and-leaseback to release working capital from existing assets, as well as seasonal/operational schemes for peak campaigns (harvesting, logistics), when access to equipment without constant fleet maintenance is key [22]. The choice of form depends on the cash flow structure, seasonality, useful life of the asset and the strategy for the reproduction of fixed assets.

The economic advantages of leasing solutions include reducing initial CAPEX, aligning payments with seasonal revenue, accelerating access to high-tech equipment, the ability to manage total cost of ownership (TCO) through service packages and residual value, and increasing flexibility in fleet renewal through programmed asset replacement at the end of the contract term [42]. For many farms, leasing is also a way to reduce operational risks: part of the technical and residual risks are transferred to the lessor; service and maintenance can be included in the payment; access to equipment does not require the creation of excessive liquidity reserves.

At the same time, leasing is not a universal substitute for investments "in property". The decision should be based on a comparative analysis: discounted leasing payments versus the cost of purchasing on credit; expected residual value;

service conditions and penalty provisions; tax effects depending on the regulatory accounting framework (management/financial accounting, depreciation rules). To make the right choice, it is advisable to compare the scenarios "buy", "lease" and "outsourcing/contract" according to the criteria of NPV/MIRR, payback period, sensitivity to changes in the financing rate, inflation and equipment utilization.

Leasing should be considered as an affordable and economically sound investment tool in fixed assets, which allows accelerating technological renewal, optimizing cash flows, and reducing tax, accounting, and operational burdens compared to direct purchase, provided that the cost, risks, and contractual terms are properly assessed [22], [42].

By economic nature, leasing transactions are divided into financial and operational leasing. Financial leasing involves the acquisition by the lessor of the desired asset and its transfer to the lessee for a specified period for regular payments with the economic transfer of the main risks and benefits of ownership; at the end of the term, a redemption option is usually provided. This mechanism is attractive for agricultural enterprises, as it allows you to accelerate the renewal and expansion of the fixed assets fleet without significant one-time CAPEX. In practice, the development of financial leasing is constrained by the limited solvency of some farms and the uneven quality of cash flow and risk management, which makes it difficult to comply with payment schedules [8]. Operational leasing is characterized by a shorter period of use compared to the standard service life of the asset, with the mandatory return of the leased object, the possibility of early termination and the absence of automatic transfer of ownership; it is appropriate for covering seasonal peaks or testing technologies without long-term commitments [42].

From the lessor's perspective, a financial lease provides a return on the invested value of the asset along with a financing fee; the responsibility for operation and maintenance is usually placed on the user, and the asset itself is returned or redeemed at the end of the term, depending on the terms of the

contract. This reduces the lessor's operational risks and minimizes the need for intermediaries in standard transactions.

According to the channel of transfer of the object, direct leasing is distinguished (the owner of the asset directly leases it), indirect (through an intermediary or a specialized leasing company) and reverse (sale-and-leaseback), when the enterprise sells the asset to the lessor and simultaneously leases it, freeing up liquidity and maintaining the operational availability of the asset. By type of object, leasing of movable property (agricultural machinery, transport), real estate (production and administrative buildings), combined (infrastructure complexes) and secondary (assets that were in use) are distinguished.

In terms of the service component, “pure” contracts (all tax, registration and administrative payments are provided by the lessee) and “partial/full service” configurations are used, in which obligations are distributed between the parties and may include maintenance, insurance, tire/consumable replacement, etc. [42]. The choice of a specific model should be based on a comparative analysis of the cost and risks for both parties (NPV/MIRR scenarios “buy/lease/outsource”), the structure of cash flows, the seasonality of the asset’s use and plans for its reproduction.

In today's conditions, simple criteria such as the "efficiency coefficient" and the payback period do not provide a correct assessment of investments, since they ignore the time value of money, inflation, risk and cash flow profile. Methodologically, it is advisable to rely on discounted indicators (NPV, IRR/MIRR, profitability index), scenario and sensitivity analysis, as well as a risk-adjusted discount rate and inflationary assumptions. Such an expansion of the toolkit allows us to move from formal "payback" to the assessment of value creation.

The source of growth in the investment capacity of an enterprise is profit, but its role should be interpreted through the prism of investor requirements: the expected return on the project must at least compensate for

the opportunity cost of capital (lost income from risk-free/portfolio alternatives), the risk premium, and the impact of inflation. Otherwise, there is an actual loss of value for capital owners.

The time profile of revenues is critical. In practice, at least three configurations are distinguished: “sequential”, when revenue generation starts shortly after the asset is put into operation; “parallel”, when part of the revenues arise before the end of the full investment cycle (phased start-up, phased introduction of capacities); and “interval”, when there is a gap between the investment periods and the start of returns (long installation, construction, crop maturation). Each profile requires its own assumptions regarding discount, working capital and liquidity reserves.

The basic tool for assessing operational sustainability is break-even analysis: the profitability threshold determines the volume of output/sales at which profit is zero, and therefore serves as the lower limit of acceptable capacity utilization [33]. To calculate it, it is advisable to divide costs into fixed (depreciation, rent, administrative expenses, insurance) and variable (raw materials, energy, technological operations), which allows you to establish a price corridor, a margin of financial strength and the sensitivity of profit to fluctuations in volume and prices. The project risk metrics (probability of falling below the threshold, margin variability) are determined using formula (4.4) and subsequent scenario/probabilistic modeling, which, in combination with discounted criteria, forms a holistic picture of the efficiency and risk of the investment decision.

$$H_V = \frac{P_v}{TV - S_v}, \quad (4.4)$$

Where TV is the cost of goods sold,

P_v – fixed costs, UAH,

S_v – variable costs, UAH.

In the given example, the sales revenue is 975 UAH, variable costs are 412.5 UAH, and fixed costs are 187.5 UAH. The marginal revenue is $975 - 412.5 = 562.5$ UAH, and the marginal profitability of revenue is $562.5 / 975 \approx 57.7\%$. Therefore, the break-even threshold for revenue will be $187.5 / 0.577 \approx 326$ UAH, that is, about 33% of the planned volume of 975 UAH. Interpretatively, this means: if the capacity utilization is one third of the planned (or if ~33% of the target revenue is achieved), the profit is zero; each additional percentage of volume above this limit forms operating profit. Such a calculation is a basic management tool at the design stages and determining the required investment amount: it allows you to check the adequacy of prices, cost structure, and planned output volume to achieve break-even and form a financial strength reserve.

In parallel with the break-even assessment, agricultural enterprises face a practical dilemma of fleet renewal: whether to purchase new equipment, choose used equipment, or engage in leasing. The development of small and medium-sized farms, combined with strict restrictions on access to credit, stimulates the secondary market: large players, having higher profitability and better access to financing, often renew the fleet before the end of the regulatory service life, bringing equipment with an acceptable residual resource to the market [36]. For smaller farms, this creates a “window” of more affordable renewal, but the decision should be based on a comparison of the total cost of ownership (TCO) and risks in three scenarios – “new equipment”, “used equipment”, “leasing/contracting”.

New equipment usually provides higher productivity, reliability and quality of work, lower maintenance and fuel costs, better ergonomics; at the same time, it requires high initial costs, generates higher depreciation and insurance payments. Used equipment reduces initial capital investment and depreciation pressure, but adds repair costs, reduces productivity and increases technological risks. Leasing (or seasonal outsourcing of work) smooths out peak liquidity loads,

accelerates access to technology and transfers some of the residual risks to the supplier, but requires cash flow discipline and careful consideration of contract terms.

The choice between options should be made on the basis of comparative calculations of NPV/MIRR, payback period and sensitivity analysis to key parameters (price, yield/load, fuel and repair costs, financing rates). If the difference in costs between new and used equipment is insignificant, it is advisable to take into account operational capacity factors: availability of service infrastructure, qualification of M&E personnel, availability of spare parts, criticality of “peak windows” of work and penalty cost of downtime. The decision in favor of used equipment is rational under conditions of limited crediting and high rates, sufficient competence of service personnel and confirmed residual resource of units; otherwise, leasing or “new” scenarios with a lower risk of failures in the production cycle are preferable.

As a result, the feasibility of operating lease of equipment is determined by a combination of savings on fixed costs and load flexibility: it is rational when the need for work is episodic or seasonally limited, and the purchase of specialized equipment leads to low intensity of use and inflated ownership costs; as well as in cases of expansion of production under conditions of limited access to credit and high rates, when leasing allows to level out cash flows and reduce the investment lag. The decision should be based on a comparison of the full cost of ownership with lease payments, an assessment of the break-even point for the alternatives "buy/rent/lease", sensitivity to the price of fuel, repairs and downtime, as well as taking into account service package options in the contract.

The practice of developed markets confirms the effectiveness of such a model. In the USA, short-term production lease, along with financial lease, is widely used to cover peak campaigns and test technologies: equipment is provided for several days or months at a fixed rate without the right to buy out, and the costs of repair and maintenance are mostly borne by the owner. Partners in this

market are manufacturers, dealers, and specialized leasing companies, which forms an extensive infrastructure of access to assets and reduces entry barriers for farmers [27]. For the Ukrainian agribusiness, the development of a similar infrastructure - standards of contracts, service networks, short-term lease exchanges, transparent assessment of the residual resource - is a critical prerequisite for scaling up rental and leasing relationships. With such institutional conditions, operating leases and leasing become full-fledged investment management tools that increase the efficiency of fixed assets, reduce the capital intensity of growth, and strengthen the financial stability of agricultural enterprises. [27]

4.5. Improving the investment process management system

According to the results of the analysis of investment activity in the agricultural sector, it was found that private investors, focusing on maximizing profitability with limited investment volumes, concentrate resources in the most profitable areas of crop production (sunflower for oil, corn for grain, wheat, soybeans, barley). Higher scales and intensity of investment are characteristic of large enterprises and farms where strategic development measures are implemented. At the same time, the priorities of individual investors without proper state coordination lead to structural imbalances: excessive capitalization of crop sub-sectors is accompanied by relative underfinancing of livestock farming, which is reflected in the deficit of products (primarily pork and beef) and price increases, i.e. in a steadily lower profitability of these industries [31].

Under these conditions, improving the investment process management system requires more consistent public policy that combines targeted incentives with institutional predictability. Key principles include: (1) efficiency – directing public resources to projects with clearly defined strategic goals and expected effects; (2) systemicity – supporting rural areas through financing basic social and

production infrastructure, which reduces transaction costs for private capital; (3) long-termism – stable “rules of the game” and insurance mechanisms against force majeure of a natural and political nature; (4) moderate trade protection during transitional periods to preserve critical industry competencies; (5) priority of innovation – stimulating technical and technological updates as a source of sustainable competitiveness.

The key vector of state policy in the field of agro-industrial complex investments is ensuring the sustainable development of agriculture through support for strategically important sub-sectors and targeted investments in infrastructure, which at the same time generates a tangible social effect for rural areas (logistics, energy and water infrastructure, storage, processing). Such support reduces transaction costs for private capital, increases the predictability of cash flows, and reduces the investment lag for projects where private profitability without an infrastructure base is insufficient.

An important component of improving the investment process management system is to strengthen the marketing function of enterprises. Marketing in this context is considered as a tool for reducing information uncertainty and positioning errors: systematic demand research, market segmentation, value chain analysis, sales channel requirements (B2B/B2C/export), price elasticity and substitutes. For the agricultural sector, this also includes the assessment of logistical “bottlenecks” (seasonal shoulders, storage, transshipment) and specific regulatory requirements. Underestimation of these aspects is a frequent cause of project failures; therefore, marketing research should be an integrated pre-investment stage with clear demand hypotheses and product viability tests [33].

Modern approaches to assessing investment activity should go beyond purely operational KPIs and take into account the complexity of risks and interrelationships. Risk management should be integrated into the investment cycle: identification of risks (market, operational, financial, regulatory, climate), their quantitative assessment (scenario and sensitivity analysis, stress-testing),

determination of risk appetite and neutralization mechanisms (hedging, insurance, liquidity reserves, modification of project design) [30]. Methodologically, it is advisable to shift the emphasis from the “probability of threat” to the sustainability and robustness of the project: the comparison of alternatives should take into account the ability to withstand shocks without loss of solvency, as well as the speed of recovery to target indicators. The study of cause-and-effect relationships (direct and inverse) between indicators of demand, prices, yield/productivity, logistics and financing allows building managed decision-making models and improves the quality of investment planning.

The coordination of state institutional incentives with internal marketing and risk management practices forms a holistic architecture for improving the investment process management system: infrastructure investments and social effects create the base; marketing provides validated demand; risk management - stability and predictability of cash flows; portfolio approach - balance of industry priorities and private profitability. It is this combination that increases the efficiency and quality of investment decisions in the agribusiness sector of Ukraine.

It is advisable to focus the assessment of the reliability of investment decisions not so much on the numerical value of the risk itself, but on its qualitative impact on the enterprise: how liquidity, margin, ability to fulfill obligations and maintain target KPIs change when implementing risk scenarios. With this approach, the purpose of the analysis is not to “measure risk for the sake of measurement”, but to obtain management conclusions regarding the necessary corrective actions (change in the financing structure, revision of schedules, hedging, etc.) [37]. Additional advantages are provided by the combination of market and risk analysis: the space for management decisions is expanded, new investment opportunities are opened (or “bottlenecks” of existing projects are identified), and the subjectivity of expert assessments is reduced due to the standardization of metrics and procedures.

The problem of domestic practice is to rely on intuition and “collective experience” instead of formalized methods. Therefore, the task is to build an applied, accessible to the manager toolkit for assessing the reliability of an investment project, which is based on the data available to the enterprise and does not require excessively complex calculations. The priority is the correct selection of indicators and the correctness of their application: scenario and sensitivity analysis with fixed assumptions, risk appetite and tolerance limits, stress-testing of key drivers (prices/yields/exchange rates/rates), a risk map with responsible parties and response triggers, as well as a plan of neutralization measures (insurance, forward/futures contracts, liquidity reserves, technical changes to the project design) [28].

Further steps are logically aimed at eliminating typical sources of errors in pre-investment assessment. First, coordination of project parameters with the external environment: macroeconomic assumptions (inflation, exchange rate, cost of capital), state budget constraints, tax and foreign trade policy, which is especially important for the agro-industrial complex. Second, work with internal risk: modeling alternative cash flow trajectories, checking sensitivity to key demand and cost factors, explicit inclusion of a section with risks and response plans in the business plan. Third, organizational capacity: audit of processes and competencies of the enterprise and critical partners with a focus on project cycle management, procurement, production planning, financial control. Fourth, planning quality: full marketing and financial calculation, confirming the viability of the product and sales channels and consistent with operational capabilities.

Improving investment activities in the agricultural sector involves a combination of institutional and managerial solutions: targeted state support for strategic projects and a moderate tax policy for new enterprises; the use of modern methods of assessing efficiency and risk; the introduction of economic and mathematical modeling of complex situations for choosing robust managerial

actions. In the complex, this forms an applied, managed system of the investment process, focused on sustainable results in conditions of uncertainty [28], [37].

The main structure of the company's material and technical support includes: tractors, combines, soil cultivation machines, fuel, various types of fertilizers, planting material, and cattle feed.

To align the micro-level analysis with the logic of the section, we will use data on the material and technical support of the BOGDANIVSKE JOINT STOCK COMPANY for 2018–2020. This period was chosen as a representative base period, reflecting the pre-war structure of fixed assets and investment priorities of the enterprise (Table 4.5).

Table 4.5

**Structure of material and technical support of the enterprise STOV
"BOGDANIVSKE"**

Name	2018	2019	2020	Deviation between 2020 and 2018
Tractors, pcs.	18	16	17	-1
Combine harvesters of all types, pcs.	14	14	13	-1
Sprayers, pcs.	3	4	2	-1
Trailers, pcs.	7	7	6	-1
Trucks, pcs.	9	13	17	8
Passenger cars, pcs.	6	6	6	0
Grain drying machines, pcs.	3	3	3	0
Forklifts, pcs.	5	4	4	-1
Trailers for trucks, pcs.	7	7	6	-1
Fertilizer spreaders, pcs.	2	3	3	1
Total quantity, pcs.	71	78	84	13

Source: constructed by the author based on financial statements

Over three years, the total number of equipment units increased from 71 to 84 (+13), indicating an increase in production potential. The transport segment made the largest contribution: trucks increased from 9 to 17 (+8), while passenger vehicles and grain dryers remained stable (6 and 3, respectively). A moderate reduction was observed in the harvesting and trailing links: combines decreased from 14 to 13, trailers from 7 to 6, loaders from 5 to 4, sprayers from 3 to 2; the tractor fleet fluctuated between 16–18 units and at the end of the period amounted to 17. This configuration indicates a prioritization of logistics and product export with a relatively restrained update of harvesting equipment. To increase operational stability, it is advisable to assess the load of the combine fleet and trailer warehouse during peak periods, as well as to clarify the need for loading equipment; this will allow to balance the structure of fixed assets and reduce the risk of "bottlenecks" in the technological chain. At the next stage, these data will serve as the basis for calculating the renewal/disposal coefficients, return on assets and saturation with equipment in terms of land area and production volume.

The analysis of the material and technical support of the BOGDANIVSKE JOINT STOCK COMPANY confirms that the core of the production system is the agricultural machinery fleet. In 2018–2020, there was an increase in individual positions and a correction in the structure of the fleet: the number of trucks increased by 8 units, while the number of sprayers decreased by 1 unit, and the number of combines by 1 unit. The cumulative increase in the transport segment indicates an increase in the logistics capacity of the farm; with proper utilization, this can create additional opportunities for providing transportation services to other producers. At the same time, the reduction of the harvesting and field links (combines, sprayers) increases the risk of “bottlenecks” during peak periods of work and requires targeted updating.

The tractor fleet is mainly represented by outdated models of MTZ production; their further operation under conditions of exhausted depreciation

resource increases repair costs, the probability of downtime and crop loss. According to the company's available data, the level of wear of individual groups of equipment reaches about 40%, which justifies the transition to a program of phased reproduction of fixed assets based on the total cost of ownership (TCO), the introduction of preventive maintenance and alignment of the fleet structure: targeted replenishment of harvesting and trailed equipment, modernization of plant protection machines, optimization of the ratio of "traction-harvesting-transport" groups.

Further calculation of indicators (renew/expiration rates, technical readiness, return on assets by groups, peak “window” load) will allow quantitatively confirming the outlined conclusions and determining investment priorities. The issues of providing energy resources and the efficiency of their use are considered below according to Tables 4.6 and 4.7.

Table 4.6

**Indicators of availability and consumption of energy resources
of the BOGDANIVSKE JSC**

Indicator\ Year	2018	2019	2020	Deviation 2020 to 2018
Total power capacity, thousand hp	12,70	13,70	14,45	1,75
Diesel fuel consumption, etc.	224,91	240,85	320,47	95,56
Gasoline costs, etc.	20,12	23,25	21,85	1,73
Electricity consumption, thousand kWh.	514,92	432,54	606,86	91,96

Source: built by the author

To further assess the efficiency of the use of fixed assets, we will consider the enterprise's provision of energy resources. The data in Table 2.2 record an

increase in the total installed capacity in 2020 compared to 2018 by 1.75 thousand hp, as well as an increase in fuel consumption by 97.29 tons. Such dynamics are consistent with the renewal and expansion of the machinery and tractor fleet and a higher level of equipment utilization, which allows us to more fully cover production needs.

For a correct analysis of the level of energy security, it is advisable to use two basic indicators - energy security and energy-related labor.

Energy availability (hp/100 ha of agricultural land) reflects the amount of available energy capacity per production area. It is defined as the ratio of the total power of tractors and self-propelled machines to the area of agricultural land (calculated per 100 ha):

$$E_a = \frac{\sum E}{S} \cdot 100, \quad (4.5)$$

Where $\sum E$ is the total amount of available energy capacities;

S is the area of agricultural land.

The labor energy intensity indicator reflects how much installed energy capacity is per average annual worker (AEA). It is advisable to calculate it as the ratio of the total power of tractors and self-propelled machines (in hp) to the number of personnel employed in production:

$$E_o = \frac{\sum E}{\sum AAR}, \quad (4.6)$$

Where $\sum E$ is the total amount of available energy capacities;

$\sum AAR$ – average annual number of employees.

To assess the technical and energy potential of the BOGDANIVSKE JSC, we will summarize the estimated indicators of energy resource security for 2018–2020. The indicators were formed based on data on the total installed capacity of the machine and tractor fleet, electricity consumption volumes and the number of

average annual employees. Table 2.3 shows: (1) energy security (hp/100 ha of agricultural land) - reflects the density of energy capacity per unit area; (2) labor energy equipment (hp/1 employee) - characterizes the technical equipment of the personnel; (3) electricity security (kWh/100 ha) and (4) labor energy equipment (kWh/1 employee) - show the intensity of electricity consumption in area and labor dimensions. The dynamics of these metrics allows us to assess whether the available energy potential meets production objectives, identify imbalances between the fleet of equipment, land area, and personnel, and determine priorities for further investments in technical re-equipment and energy efficiency (Table 4.7).

Table 4.7

**Indicators of energy resource security of the BOGDANIVSKE
JOINT STOCK COMPANY**

Indicators	2018	2019	2020	Deviation between 2020 and 2018
Energy availability per 100 ha. agricultural land, h.p.	6,78	7,31	5,96	-0,82
Energy equipment per 1 employee, hp	101,60	111,38	120,42	+18,82
Energy supply per 100 ha of agricultural land, kW/h	274,76	230,81	250,25	-24,51
Energy supply per 1 employee, kW/h	4119,20	3516,62	5057,17	+937,97

Source: built by the author

According to the results of Table 2.3, there is a heterogeneous dynamics of technical and energy indicators. The energy equipment of labor increased from 101.60 to 120.42 hp/employee (+18.82), and the electrical equipment - from 4119.20 to 5057.17 kWh/employee (+937.97), which indicates an increase in the technical equipment of personnel and a more intensive use of electricity in the

labor dimension. At the same time, the area indicators decreased: energy security - from 6.78 to 5.96 hp/100 ha (-0.82), electrical security - from 274.76 to 250.25 kWh/100 ha (-24.51). Such a configuration may reflect the expansion of cultivated areas without a proportional increase in capacity, as well as structural shifts in the fleet of machines (emphasis on the transport component).

Given the weight of energy sources in the cost, further analysis should be combined with an assessment of resources that directly shape yield and costs per hectare. The following table 4.8 presents the structure of costs and the availability of seed and fertilizers - key drivers of productivity and capital intensity of production.

Table 4.8

Provision of planting material at the BOGDANIVSKE FARMS

Indicators	2018	2019	2020	Difference between 2020 and 2018
Needs for planting material, thousand UAH.	755.0	762.0	800.0	45.0
Availability of planting material, thousand UAH	634,2	685,8	766,0	125,8
Deviation, thousand UAH.	-120,8	-76,2	-40,0	80,8
Coverage, %	84	90	95	11

Source: built by the author

According to Table 4.8, the availability of planting material at the BOHDANIVSKE JOINT STOCK COMPANY improved significantly during 2018–2020: with a slight increase in demand (755.0 - 800.0 thousand UAH; +45.0), the actual availability of resources increased more significantly (634.2 - 766.0 thousand UAH; +125.8). The deficit decreased from -120.8 to -40.0 thousand UAH (an improvement of 80.8), and the level of availability increased from 84% to 95% (+11 pp). This indicates an improvement in the quality of procurement planning and better synchronization of working capital financing

with the agrotechnical calendar, which directly reduces the risk of under-sowing, disruptions in terms of timing and yield losses.

Material and technical support (seeds, fertilizers, crop protection products, fuel and energy resources, spare parts) is a key driver of operating results and at the same time the most capital-intensive expense item. Therefore, a change in the level of support is reflected in the cost price, profitability, return on capital and capital equipment. For management decisions, it is important to assess not only the volume and percentage of coverage of needs, but also the structure (share of certified seeds, hybrids/varieties, sowing rates), delivery schedule and terms of payment deferral. Stabilizing support at the level of 95% and above in combination with the quality characteristics of materials creates the prerequisites for reducing technological risks, more uniform loading of equipment and increasing the financial performance of production.

Analysis of material and technical support and energy indicators showed an increase in the production potential of the enterprise due to the strengthening of the transport and logistics link and the increase in the energy supply of labor. At the same time, the decrease in energy supply per 100 hectares and local reductions in harvesting and field equipment outline the risks of “bottlenecks” during peak periods. The gradual leveling of deficits of working resources – primarily planting material – and the increase in the level of supply to 95% confirm the improvement of procurement planning and synchronization of financing with the agrotechnical calendar. To increase the stability of operations, it is advisable to gradually update the fleet of machines with a focus on harvesting, trailed and plant protection equipment, introduce total cost of ownership management, preventive maintenance and repair, and continue to optimize energy intensity through technological maps and fuel consumption control.

The effectiveness of investment management in the agricultural sector is formed at the intersection of three planes: the macro-level institutional environment, industry-regional conditions and micro-level practices of

enterprises. The basic trends of 2010–2018 - the growth in the share of investments in the agro-industrial complex and structural capital flows - in combination with the microanalysis of 2018–2020 for the BOGDANIVSKE JOINT STOCK COMPANY confirm that the most tangible results are provided by a combination of balanced investments in the material and technical base with the strengthening of logistics, energy supply and working capital. The methodological support is provided by project analysis (NPV/IRR, break-even point, sensitivity and scenarios), tools for organizing the investment process (tenders, budgeting, leasing) and built-in risk management, focused not only on measuring probabilities, but also on the stability of cash flows and the manageability of decisions. Public policy should provide an infrastructure foundation, predictable rules, and targeted support for innovation, while enterprises should build a portfolio of fixed asset renewal and data discipline for decision-making. In such a configuration, the investment process becomes more robust to shocks, and the productivity and profitability of agricultural production are steadily growing.

CHAPTER 5. DEVELOPMENT AND SUBSTANTIATION OF INVESTMENT PROJECTS IN AGRICULTURAL BUSINESS ENTERPRISES

5.1. Organizational and economic characteristics of the agricultural enterprise AF “Velykyi Khutir” LLC

Modern agrarian business operates in conditions of high capital intensity, technological dependence and price volatility, which places increased demands on the quality of investment decisions. That is why the development and justification of investment projects is a key tool for the strategic development of enterprises: through a project approach, goals are formed, cash flows are modeled, sensitivity to risks is assessed and results are managed over time. In this section, the methodology outlined earlier is applied to a specific micro-level case in order to demonstrate how the organizational and economic characteristics of the farm are transformed into a portfolio of investment decisions, as well as how these decisions affect productivity, sustainability and profitability of activities. The base observation interval was chosen as 2017–2019, which ensures comparability of indicators and allows interpreting results without shock distortions of later years; the emphasis is on natural and relative indicators relevant for making management decisions.

Joint-Stock Company “AF Velikiy Khutir” is located in the village of Velikiy Khutir, Drabiv district, Cherkasy region and operates in the form of a limited liability company. The enterprise was created by three founders; the authorized capital is 136 thousand UAH. The economic goal is to receive profit from the production and sale of agricultural products while respecting the interests of participants and taking into account the social role in the community [30]. Such a goal setting sets the guidelines for investment policy: updating fixed assets, increasing energy efficiency, strengthening the logistics circuit and diversifying activities taking into account local agro-climatic conditions.

The legal principles of operation are defined by the Constitution of Ukraine, the Civil, Commercial and Land Codes and special legislation on business associations. Management is carried out on the basis of the charter, which specifies the subject of activity, the procedure for the formation of property, the principles of profit distribution, the system of management and control bodies, requirements for accounting and reporting, as well as the procedures for terminating activity [30]. The corporate rights of participants - participation in management, receiving dividends in proportion to the contribution, the possibility of alienating a share in the established manner - ensure the consistency of the interests of the owners with the tasks of increasing the value of the business and financial stability.

The scope of activity covers the full cycle of agricultural production: growing crop and livestock products, procurement, storage and primary processing, providing production with material and technical resources, performing auxiliary and logistical operations, developing production infrastructure and providing specialized services - within the framework of the principle of freedom of entrepreneurship, which does not contradict the legislation. Economically, such specialization forms a diversified portfolio of operations with the dominance of crop production, which reduces the volatility of cash flows and creates space for investment selection - from harvesting and energy technology to storage and processing solutions.

The organizational model is built according to the classic two-tier corporate governance scheme: the highest body is the General Meeting of Participants; the executive body is the director, who organizes production and economic activities and is responsible for the results. Control functions are assigned to the auditor (or audit committee) and, if necessary, the supervisory board. The functional structure of production, as well as the subordination of key services (agronomic, engineering, accounting and financial, planning and economic) are presented in

the source material (Fig. 5.1), which ensures transparency of processes and is a prerequisite for the implementation of investment management tools - budgeting, tender procedures, total cost of ownership management and preventive maintenance.

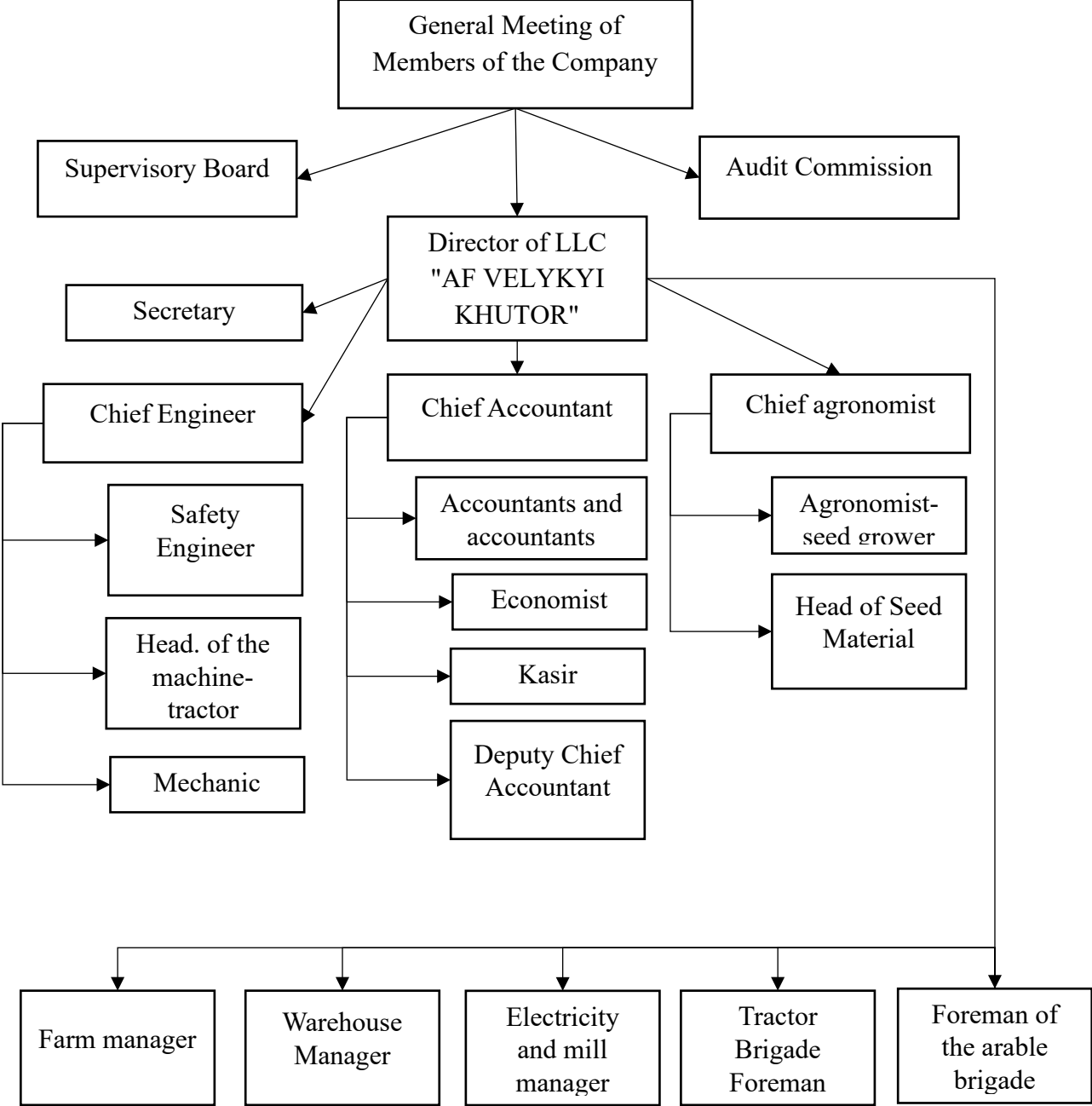


Fig. 5.1. Management structure STOV "AF VELIKY KHUTOR"

Source: built by the author

According to the Charter, STOV "AF Velikiy Khutir" carries out economic activities independently: determines the production program, forms a pricing policy (own prices or negotiated), concludes contracts and distributes profits between participants in proportion to their shares in the authorized capital. State supervision is carried out within the competence of authorized bodies in accordance with current legislation, which ensures legal certainty and predictability of regulatory requirements [30].

The enterprise is located in the north-eastern part of Cherkasy region, in a forest-steppe zone with a temperate continental climate: mild winters and hot summers, average annual temperature of about 7–11 °C. This agro-climatic profile is favorable for growing grain, leguminous and oilseed crops, as well as for the development of livestock; natural and climatic conditions meet the technological requirements of modern agricultural production.

The organizational and economic characteristics of an enterprise are based on measuring its "scale" as a multidimensional category that combines the resource base (land, labor, technical, energy resources), financial parameters (revenue, assets, working capital) and operational capacity (output structure, productivity, logistics). The choice of market strategy, the configuration of the investment portfolio and the possibility of realizing economies of scale and diversity depend on the correct assessment of size.

According to the criteria used in domestic statistical practice, the joint-stock company "AF Velykyi Khutir" belongs to medium-sized enterprises: the average annual number of personnel is 85 people, and sales revenue is UAH 57,237 thousand (Table 5.1).

Table 5.1

Main size indicators STOV "AF VELIKY KHUTIR"

Indicators	Years			Deviation 2019/2017	
	2017	2018	2019	+ / -	%
Area of rural land, ha	2884	2873	2864	-20	-0,70%
of which: arable land	2843,7	2832,8	2823,8	-19,9	-0,70%
Average annual number of employees, persons:	99	94	85	-14	-16,47%
main crop workers	63	61	57	-6	-10,53%
main livestock workers	36	33	28	-8	-28,57%
Total labor costs, thousand man-hours	362,07	362,07	328,6	-33,47	-10,19%
Average annual cost of fixed assets and current assets, thousand UAH.	43944,9	46257,8	51397,5	7452,6	14,50%
Income (revenue) from product sales, thousand UAH.	37188,1	43989	57237	20048,9	35,03%
Profit received from the sale of products, thousand UAH	20368,1	20658	20952	583,9	2,79%

Source: constructed by the author based on financial statements

The data presented in Table 5.1 show that in 2019 the area of agricultural land of the Agricultural Cooperative "AF Velikiy Khutir" was 2,864 hectares, i.e. 20 hectares less compared to 2017; the share of arable land decreased by 0.7 pp. The reduction in the average annual number of personnel from 99 to 85 people (-16.5%) was accompanied by a decrease in labor costs by 10.2%, which reflects partial compensation for the area reduction due to organizational and technological changes. At the same time, an increase in the average annual cost of fixed assets and working capital was recorded by 7,452.6 thousand UAH (about +15% compared to 2017), which is interpreted as a sign of updating the material and technical base and increasing the provision of working capital.

Financial results correlate with the above structural changes: sales revenue increased from UAH 37,188.1 thousand in 2017 to UAH 57,237.0 thousand in 2019 (+35%), which, under the conditions of cost containment, contributed to an increase in profit by UAH 583.9 thousand. The totality of these changes reflects

the company's transition to a more resource-efficient model: with some reduction in land and labor factors, there is an increase in the capital-intensive component and an increase in the return on invested resources.

Based on the size, location and agro-climatic conditions, the specialization profile is defined as predominantly crop-growing with the potential for expanding processing and logistics. Specialization is understood as a stable orientation of the enterprise to the production of certain types of products and related services, which allows realizing the effects of scale and technological concentration. The development of production in agriculture occurs within the framework of the social and territorial division of labor: individual sub-sectors of crop production (cereals and legumes, soybeans, sunflower, rapeseed, vegetables, fruit and berry crops) and livestock (cattle for milk and meat, pig farming, poultry farming, sheep farming, etc.) complement each other in resource and technological chains. The specific configuration of the enterprise specialization is presented in Table 5.2, which serves as the basis for further assessment of efficiency and investment decisions.

Table 5.2

The structure of commodity products inSTOV "AF VELIKY KHUTIR"

Indicators	2017		2018		2019	
	thousand UAH	%	thousand UAH	%	thousand UAH	%
1	2	3	4	5	6	7
Cereals and legumes	22302,0	54,1%	27841,3	59,9%	36277,1	63,5%
Sunflower	8542,3	20,7%	6698,2	14,4%	8460,5	14,8%
Soybeans	0,0	0,0%	1162,2	2,5%	1358,7	2,4%
Sugar beets	1149,4	2,8%	975,1	2,1%	935,4	1,6%
Other crop products	137,0	0,3%	236,4	0,5%	73,8	0,1%
Total crop production	32130,7	77,9%	36913,1	79,4%	47105,5	82,5%
Cattle growth	2412,1	5,8%	2375,1	5,1%	2510,8	4,4%
Pig growth	2252,3	5,5%	2994,6	6,4%	3309,8	5,8%
Milk	4167,5	10,1%	3842,7	8,3%	3922,4	6,9%
Eggs	48,4	0,1%	54,9	0,1%	55,3	0,1%
Other livestock products	143,2	0,3%	124,2	0,3%	114,5	0,2%

Continuation of table 5.2

1	2	3	4	5	6	7
Total livestock	9023,4	21,9 %	9391, 5	20,2 %	9912, 8	17,4 %
Services in crop and livestock production	92,0	0,2%	159,9	0,3%	104,0	0,2%
Total per enterprise	41246,0	100,0 %	46464 ,5	100,0 %	57122 ,3	100,0 %

Source: constructed by the author based on financial statements

According to Table 5.2, the crop profile dominates: the share of cereals and legumes in 2019 revenue is 63.5%, sunflower - 14.8%; in livestock farming, milk (6.9%) and pork (5.8%) are key. In 2017–2019, the share of crop farming increased to 82.5% (+4.6 pp), while the share of livestock farming decreased to 17.4%; services in the structure remain marginal (~0.2%). This dynamics reflects a targeted concentration on segments with relatively higher margins and greater contractual certainty of sales, but at the same time increases sensitivity to price and weather risks in field crops.

To determine the level of specialization of an enterprise, the specialization coefficient formula is used:

$$C_s = \frac{100}{\sum T(2i-1)}, \text{ де} \quad (5.1.)$$

C_s – specialization coefficient;

T – the specific weight of each industry in the structure of commodity production, %;

i - the serial number of the type of product in the ranked series by specific weight in the structure of commodity products.

The coefficient reflects the degree of specialization of the enterprise, taking into account all areas of activity. Interpretation of values: up to 0.20 - diversified economy; 0.21–0.30 - weak specialization; 0.31–0.40 - average; 0.41–0.50 - above average; 0.51–0.60 - high; over 0.60 - deep specialization.

ForSTOV "AF VELIKY KHUTIR" This level is 0.36, which confirms the average level of specialization of the enterprise. The profile is formed mainly by crop production - growing grains and sunflower - with supporting areas in dairy cattle breeding and pig breeding. From a managerial point of view, this justifies targeted investments in increasing the yield and logistics of the grain and oilseed block, as well as in increasing the efficiency of livestock farming as a tool for diversifying risks and stabilizing cash flows.

An important component of the organizational profile is the personnel structure. In 2019, the company employed 85 people; in 2017–2019, the number decreased by 14 people, which is due to the optimization of production and management processes, the implementation of technological solutions and the adjustment of the production structure. The personnel of the joint-stock company "AF Velikiy Khutir" includes 6 management personnel, 6 key specialists (engineering, technical and agronomic positions), the rest are production personnel (Table 5.3).

Table 5.3

Personnel at the enterpriseSTOV "AF VELIKY KHUTIR"

Indicator	Number of employees	Education
Director	1	Higher
Deputy Director	1	Higher
Chief Agronomist	1	Higher
Chief zootechnician	1	Higher
Chief Engineer	1	Higher
Chief Accountant	1	Higher
Leading specialists	6	Higher
of them:	2	Higher
	4	Secondary special
Total employees:	85	-

Source: constructed by the author based on financial statements

According to Table 5.3, the enterprise employed 85 people in 2019. The management team has 6 positions (director, deputy, chief agronomist, zootechnician, engineer, accountant) - all with higher education. The block of key specialists includes 6 people, 2 of whom have higher education, 4 - secondary specialized education. The production staff is 73 people. Thus, the share of managerial and functional positions is about 14%, which is typical for a medium-sized agricultural enterprise with a predominantly crop-growing specialization. At the same time, the share of employees with higher education (8 out of 85) indicates the potential for strengthening the intellectual component of production - primarily in the areas of agronomy of precision agriculture, engineering service, financial and investment planning and controlling.

The results of the study for the case of the Joint-Stock Company "AF Velikiy Khutir" recorded the initial organizational and economic profile of the enterprise: scale and resource base, crop dominance at an average level of specialization, personnel configuration and signs of renewal of fixed capital and revenue. The established characteristics serve as a valid empirical basis for further investment modeling: they allow for the correct calibration of production capacities, cost structure and allowable discount rate, as well as to outline the risk profile and sources of efficiency.

In the context of the topic "Investment planning and strategic management of the development of small, medium and agricultural businesses", these results deepen the scientific position of the work: they show how strategic specialization, resource availability and personnel structure determine investment capacity and the choice of financing instruments. Thus, the case of STOV "AF Velikiy Khutir" provides a connection between theory and practice: from formalized

organizational and economic parameters to substantiated project decisions and cash flow scenarios, which will be used in the following subsections for the development and evaluation of investment projects.

5.2. Assessment of the economic efficiency of the enterprise

The economic efficiency of an agricultural enterprise is an integral characteristic of its ability to transform the resource base into a sustainable financial result and a reproducible cash flow. For the case of STOV "AF Velikiy Khutir", the assessment is focused on the relationship between the structure of assets and the sources of their formation with indicators of liquidity, turnover and profitability, which determine the productivity of capital in the conditions of seasonality, price volatility and technological limitations. This approach allows us to identify how effectively the production capacities, circulating resources and financial architecture of the farm are combined, and whether this provides a sufficient margin of financial stability.

The analysis is carried out in the format of structural-dynamic and coefficient analysis: the change in the specific weight of key balance sheet items is tracked, the quality of working capital is diagnosed through turnover indicators and the duration of the operating cycle, the marginality of operations and the profitability of capital are assessed, taking into account industry specifics. The initial data on the volume and structure of property are presented in Table 5.4.

Table 5.4

**Analysis of the volume, structure and dynamics of capital of STO
"AF VELIKY KHUTIR" for 2019**

Indicators	At the beginning of the period		At the end period		Deviation by amount, thousand UAH.	Structural deviations %
	thous and UAH	% to total	thous and UAH	% to total		
Property – total	43222	100	64046	100	20824	0
1. Non-current assets	13309	30,79%	24253	37,87%	10944	7,08%
1.2. Fixed assets	11095	25,67%	21994	34,34%	10899	8,67%
2. Current assets	29913	69,21%	39793	62,13%	9880	-7,08%
2.1. Tangible fixed assets	26217	60,66%	29250	45,67%	3033	-14,99%
2.2. Accounts receivable	2481	5,74%	7030	10,98%	4549	5,24%
2.3. Monetary assets	379	0,88%	847	1,32%	468	0,45%

Source: constructed by the author based on financial statements

The asset structure of STOV "AF VELIKY KHUTIR" is characterized by an increase in capital intensity: the share of non-current assets increased from 30.79% at the beginning of the period to 37.87% at the end of the year, which corresponds to an increase of 7.08 pp. and indicates the renewal and expansion of production capacities (Table 2.4). At the same time, the share of current assets decreased from 69.21% to 62.13% mainly due to the reduction of material working capital (-14.99 pp), while receivables increased to 10.98% of the total (+5.24 pp), and cash assets – to 1.32% (+0.45 pp). Such dynamics means a reorientation of resources into long-term means of production, which potentially enhances capital productivity, but at the same time increases the requirements for liquidity management and collection of receivables. Optimizing working capital

in the face of growing fixed assets is critical to maintaining the operational flexibility and financial stability of the enterprise (Figure 5.2).

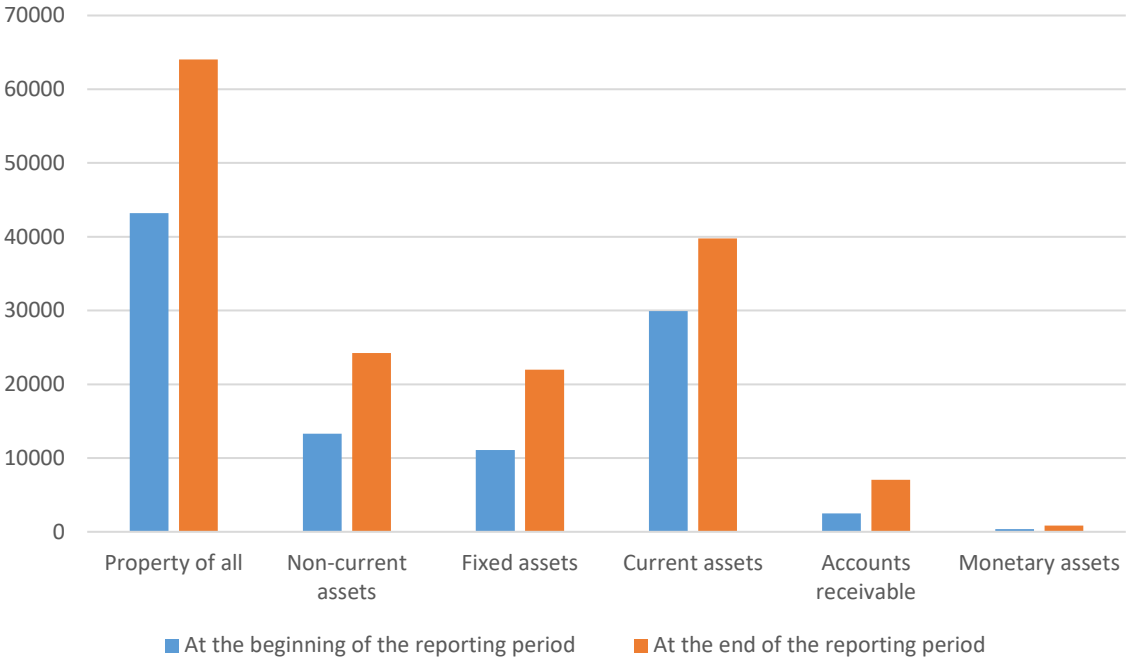


Fig. 5.2. Dynamics of the company's property composition in 2019.

Source: constructed by the author based on financial statements

The dynamics of assets indicates a redistribution of resources in favor of long-term investments: the growth of the share of non-current assets is accompanied by a decrease in the share of current assets (from 69.21% to 62.13%). The latter include inventories, work in progress, goods and biological assets; their reduction in the property structure, with unchanged operating needs, is interpreted as the mobilization of funds for modernization and expansion of production capacities (Fig. 5.2). The total value of property increased from UAH 43,222 thousand to UAH 64,046 thousand, i.e. by UAH 20,824 thousand (+≈48.2%), which confirms the investment nature of changes in assets.

Further analysis should focus on the sources of this growth – the volume, structure and dynamics of the enterprise's capital, which are presented in Table 5.5.

Table 5.5

Volume, structure and dynamics of the enterprise's fixed capital in 2019

Indicators	At the beginning of the period		At the end of the period		Deviation by amount, thousand UAH	Structural deviations, %
	thous and UAH	% to total	thous and UAH	% to total		
Enterprise capital	43222	100%	64046	100%	20824	0
1. Equity	42619	98,60%	62950	98,29%	20331	-0,32%
1.1. Own working capital	29310	67,81%	38697	60,42%	9387	-7,39%
2. Commitment	603	1,40%	1096	1,71%	493	0,32%
2.1. Long-term liabilities	0	0,00%	0	0,00%	0	0,00%
2.2. Current liabilities	603	1,40%	1096	1,71%	493	0,32%
2.2.1. Accounts payable	0	0,00%	0	0,00%	0	0,00%

Source: constructed by the author based on financial statements

According to Table 5.5, the company's capital was formed mainly at the expense of its own funds: the share of equity during 2019 decreased by only 0.32 pp. (from 98.60% to 98.29%), which confirms the high autonomy of financing. Own working capital decreased from 67.81% to 60.42% (-7.39 pp), while the share of liabilities increased slightly - from 1.40% to 1.71% (+0.32 pp) due to an increase in current liabilities by UAH 493 thousand (from UAH 603 to 1,096

thousand). There are no long-term liabilities, i.e. STOV "AF VELIKIY KHUTIR" does not use long-term debt financing. Such a structure simultaneously reduces credit risk and interest burden, but limits the effect of financial leverage and the rate of scaling of investment projects.

It is advisable to continue assessing financial stability through a system of indicators - coefficients of autonomy, financial dependence, maneuverability of equity and working capital, and stability of the structure of working capital; the corresponding calculations are summarized in Table 5.6.

Table 5.6

Financial stability indicators of the LLC "AF VELIKY KHUTIR"

Indicator name	At the beginning of the reporting period	At the end of the reporting period	Dynamics of change
Autonomy coefficient	0,99	0,98	-0,003
Financial dependency ratio	1,01	1,02	0,003
Working capital agility ratio	0,85	0,71	-0,134
Equity agility ratio	0,69	0,47	-0,222
Financial stability ratio	0,99	0,98	-0,003
Debt to equity ratio (financing)	0,01	0,02	0,003
Long-term engagement ratio	0,00	0,00	0,000
Stability of the working capital structure	0,98	0,97	-0,007

Source: constructed by the author based on financial statements

The indicators in Table 5.6 record the predominance of own financing and minimal dependence on borrowed capital. The autonomy coefficient decreased from 0.99 to 0.98, and the inverse coefficient of financial dependence increased to 1.02. Thus, for 1 UAH of own capital, about 0.02 UAH of external funds are required; such a structure reduces interest costs and refinancing risk, but at the same time limits the use of financial leverage in investment decisions.

The dynamics of maneuverability indicates a redistribution of resources in favor of non-current assets. The working capital maneuverability ratio decreased from 0.85 to 0.71, and the equity maneuverability ratio decreased from 0.69 to 0.47. This means a reduction in the share of flexible working resources, which narrows the possibilities of operational financing of inventories, technological breaks and seasonal fluctuations in crop and livestock production. The financial stability ratio decreased from 0.99 to 0.98, while the ratio of borrowed and equity capital increased from 0.01 to 0.02, remaining at levels significantly lower than industry risk thresholds. There are no long-term liabilities; the stability of the working capital structure decreased from 0.98 to 0.97, which indicates the need for more accurate management of inventories and receivables.

In the context of investment management, the results obtained are interpreted as a “conservative” financial profile: the company is solvent and resistant to shocks, but has a limited speed of scaling investment programs at the expense of internal resources. To maintain investment dynamics, it is advisable to combine an increase in the turnover of current assets (reduction of production inventories to rational norms, acceleration of receivables collection) with moderate long-term involvement in infrastructure and technological assets that generate stable cash flows. Such a correction of the capital structure will allow maintaining acceptable parameters of autonomy and liquidity and at the same time strengthening investment capacity.

For an in-depth assessment of solvency, it is advisable to use the balance sheet method of liquidity analysis, which links the structure of assets with the profile of liabilities by their maturity. Solvency in this approach is interpreted as the ability of the enterprise to timely fulfill financial obligations at the expense of internally generated and mobilized resources, while liquidity reflects the speed and cost losses of converting assets into cash. To make this comparison

operational, assets are grouped in descending order of liquidity into A1–A4: cash and equivalents and short-term financial investments (A1); quickly sold items - primarily receivables and finished goods (A2); assets with an average level of liquidity - work in progress, other receivables, long-term financial investments and deferred expenses (A3); the least liquid or conditionally illiquid items - mainly part of intangible assets and specific rights (A4). Liabilities, in turn, are ranked in increasing urgency: from urgent current liabilities (P1) and near-term liabilities (P2) to medium-term (P3) and permanent sources of financing - equity and long-term liabilities (P4).

The liquid balance assumes the fulfillment of the system of inequalities $A1 \geq P1$, $A2 \geq P2$, $A3 \geq P3$ and $A4 \leq P4$. The first of them confirms the ability to immediately repay the most urgent debts without destroying the operating cycle; the second - the sufficiency of quickly sold assets to cover the obligations of the near future; the third - the balance of working capital relative to medium-term sources; the fourth - structural consistency: the least liquid assets should be financed by long-term and permanent resources. For enterprises in the agricultural sector, seasonality is additionally important: during peak periods of inventory accumulation and work in progress, the share of A2–A3 naturally increases, which increases sensitivity to the quality of the receivables portfolio, the speed of inventory turnover and access to short-term credit. Therefore, the interpretation of liquidity indicators should take into account the duration of the operating cycle, the practice of settlements with counterparties and the inventory management policy.

Comparing aggregates A1–A4 and P1–P4 in dynamics allows us to identify sources of potential shortages of working capital, assess reserves for financing seasonal peaks, and justify financial policy adjustments - from reducing the period for collecting receivables to reformatting the structure of capital sources. On this

basis, Table 5.7 presents calculations for 2019 with further interpretation of the obtained ratios in the context of the solvency and sustainability of the enterprise's operating cycle.

Table 5.7

Liquidity analysis of the balance sheet of STOV "AF VELIKY KHUTIR" for 2019

A	At the beginning of the year	At the end of the year	P	At the beginning of the year	At the end of the year
A1	379	847	P1	199	215
A2	26409	33513	P2	404	881
A3	1825	2335	P3	-	-
A4	14609	27351	P4	42619	62950
	43222	64046		43222	64046

Source: constructed by the author based on financial statements

The data in Table 5.7 demonstrate the excess short-term solvency of the Joint Stock Company "AF VELIKY KHUTIR". At the beginning and end of the year, $A1 \geq P1$ and especially $A2$ are satisfied. $\gg P2$: the set of the most liquid and quickly sold assets significantly exceeds term and short-term liabilities. During the year, $A1$ increased from 379 to 847 thousand UAH, $A2$ - from 26,409 to 33,513 thousand UAH, while the corresponding groups of liabilities remained moderate. Structural consistency is also observed: low-liquid assets ($A4$) are financed by long-term and permanent sources ($A4 \leq P4$) in both periods. Thus, the enterprise has a sufficient liquidity reserve for seasonal fluctuations without the need for emergency lending or forced sale of inventories.

At the same time, it is advisable to supplement the aggregated balance sheet approach with a ratio analysis. Indicators of absolute, quick and current liquidity, as well as the maneuverability of own working capital (Table 5.8) allow us to separate cash solvency from the ability to quickly monetize receivables and inventories, assess the margin of financial flexibility and identify possible imbalances between the structure of assets and the maturity of liabilities.

Table 5.8

Dynamics of liquidity and solvency indicators of STOV "AF VELIKY KHUTIR" for 2019

Indicators	At the beginning of the year	At the end of the year	Dynamics of change
Amount of own working capital, thousand UAH	29310	38697	9387
Absolute liquidity ratio	1,90	3,94	2,04
Quick liquidity ratio	8,39	11,21	2,82
Current liquidity ratio	49,61	36,31	-13,30
Working capital maneuvering ratio	0,69	0,61	-0,07
Share of working capital in assets	0,69	0,62	-0,07
Share of inventories in current assets	0,83	0,69	-0,14
Share of own working capital in inventory coverage	1,20	1,45	0,24

Source: constructed by the author based on financial statements

The results presented in Table 5.8 indicate the excess short-term solvency of STOV "AF VELIKY KHUTIR" against the background of the growth of its own working capital from 29,310 to 38,697 thousand UAH. The absolute liquidity ratio increased to 3.94 (according to the standard of 0.1–0.2), which means a significant cash reserve and at the same time an inefficient loading of cash assets and equivalents: part of the resources is not used in production and does not generate a margin. The quick liquidity ratio increased to 11.21, and the current ratio even recorded a decrease to 36.31, however, both indicators are many times higher than the benchmarks (1.0–2.0). This configuration is explained by the very low level of short-term liabilities and confirms the structural "overliquidity" of the balance sheet.

The maneuverability of own working capital remains high (0.61 at the end of the period), i.e. current assets are formed mainly from own sources, without significant dependence on borrowed capital. The share of working capital in assets

has slightly decreased (from 0.69 to 0.62), and the share of inventories in current assets – from 0.83 to 0.69; at the same time, the coverage of inventories with own working capital has increased to 1.45. Collectively, this means a smaller “warehouse” binding of working resources and a higher margin of financial flexibility.

From an investment management perspective, such a liquidity position reduces risks and provides resilience to seasonal fluctuations, but creates losses in opportunity cost. It is advisable to consider redistributing excess highly liquid assets into productive areas (modernization of equipment, crop/livestock turnover cycle, logistics infrastructure) or using moderate short-term leverage for seasonal needs - provided that liquidity control thresholds are maintained at a level sufficient for uninterrupted operation.

Summing up the results of the assessment of liquidity and working capital of STO "AF VELIKIY Khutir", it should be noted the specific role of inventories for the agricultural business: their higher share in the structure of current assets is not only a "freezing" of capital, but also an investment strategy for deferred sale of the harvest to monetize the seasonal price premium. At the same time, excessive materialization of working capital in inventories increases storage costs, increases the risks of quality losses and reduces the speed of turnover.

The obtained indicators indicate a financially stable, highly liquid, almost independent of creditors position of the enterprise. However, such “overliquidity” and minimal use of borrowed capital limit the possibilities of scaling and reduce the return on capital. To increase efficiency, it is advisable to transform part of the excess highly liquid assets into productive investments (modernization of fixed assets, acceleration of turnover, logistics and storage with controlled quality) and introduce a moderate, seasonally linked credit leverage with clear liquidity thresholds. Such correction of the resource structure will allow to

preserve the existing stability and at the same time increase profitability, which is a necessary condition for further investment planning.

5.3. Justification of the investment project concept

The development of the Joint Stock Company "AF Velikiy Khutir" requires not so much raising funds as converting them into an increase in business value. The concept of an investment project serves as a framework that combines the strategic goals of the enterprise, market opportunities and resource constraints into a coherent logic of actions. The concept is understood as a concisely formulated "architecture" of the future project: defining the problem and target effect, expected results and key assumptions, boundaries and dependencies, value creation model, cost structure and sources of financing, as well as basic risks and mechanisms for their neutralization.

The substantive task of such a concept is to ensure the comparability of alternatives and to allow further detailing of only those solutions that enhance financial sustainability, accelerate capital turnover and increase the return on invested resources. At the conceptual stage, the selection criteria (NPV, IRR, payback period, sensitivity to price and yield shocks, impact on logistics costs and storage quality), the time horizon of cash flows, the need for working capital, as well as the contours of the operating model (production - storage - logistics - sales) are fixed.

The sequence of construction is shown in Fig. 5.3: from the formulation of the target effect and the system of assumptions to the preliminary feasibility study, variant comparison and decision-making on further design. Such a formulation makes the choice of investment direction demonstrable and creates a transparent basis for subsequent efficiency calculations and risk management organization.

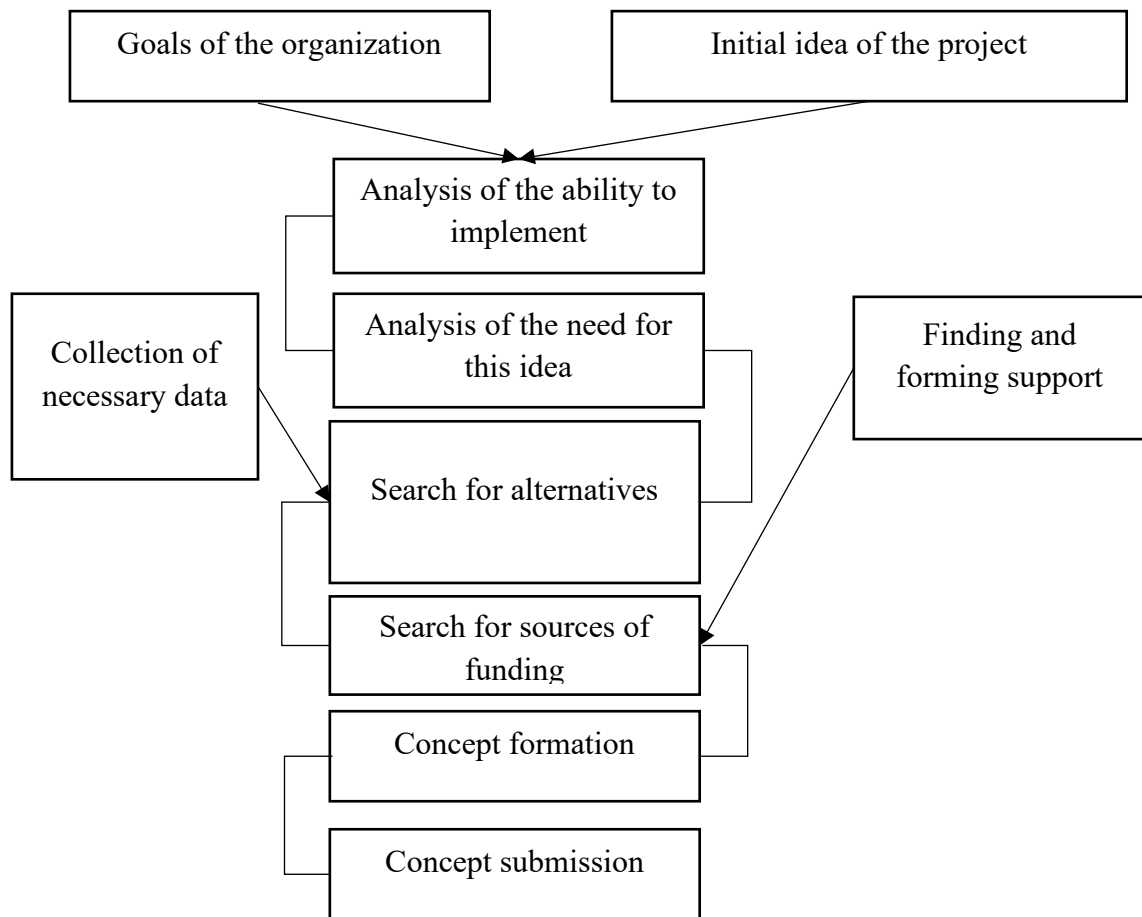


Fig. 5.3. Logical structure of project concept formation

Source: constructed by the author based on [24]

The description of goals, objectives and expected results should be presented in the concept so clearly as to immediately provide a transition to quantitative modeling of project parameters and comparison of alternatives. For STOV "AF Velykyi Khutir", a preliminary analysis of the economic indicators of the farm and the natural and climatic conditions of the Cherkasy region provides grounds for forming two realistic concepts of crop diversification.

The first vector is the establishment of a blueberry plantation. The crop corresponds to the climatic profile of the region (moderately continental conditions, sufficient rainfall provided that local irrigation and soil acidity control are provided) and is characterized by a steady increase in demand both on the

domestic and foreign markets. The berry consumption market is showing positive dynamics, while domestic supply has long lagged behind demand, which has supported imports. For the farm, this means the possibility of entering the premium price segment provided that technological requirements are met (acidic substrates, drip irrigation, mulching, varietal renewal) and building sales in two channels: fresh produce in season and processing/shock freezing to extend sales.

An alternative vector is the industrial cultivation of sea buckthorn. The crop is technologically hardy, adapted to the conditions of the Forest-Steppe, has a wide scope of commercial use (food ingredients, pharmaceuticals, cosmetics) and a relatively low saturation of the domestic supply. Economic feasibility is supported by the high added value of processed products (in particular, sea buckthorn oil) and the possibility of preserving revenue outside the peak of field work. At the same time, the concept must take into account technological limitations: the dioeciousness of the plant and the manual component of harvesting increase labor costs; to ensure a stable harvest, competent formation of plantations, a protection system and logistics of rapid cooling of berries are required. If planted with two-year-old seedlings, the first commercial products are formed from the second year, which reduces the lag to positive cash flows compared to other perennial crops.

To compare alternatives for establishing perennial plantations, we apply the discounted cash flow approach. We take the discount rate of 20% as an estimate of the cost of capital, taking into account the sectoral risks of the agricultural sector and the liquidity premium of the region. The selection criterion is the net present value (NPV) - the increase in business value generated by the project at the selected discount rate.

Net present value:

$$NPV = \sum_{t=0}^n \frac{S_t}{(1+i)^t} , \quad (5.2)$$

Where S_t – net cash flow in period t ;

i – discount rate;

n – number of the last studied period.

In the future, we use the acceptance rule: $NPV > 0$ – the project creates value, among mutually exclusive alternatives we choose the option with the higher NPV. This ensures consistency with the goal of maximizing the value of the enterprise.

The second indicator is the internal rate of return (IRR), that is, the discount rate at which the total present value of flows is zero:

$$\sum_{t=0}^n \frac{S_t}{(1+IRR)^t} = 0, \quad (5.3)$$

Where S_t – net cash flow in period t ;

n – number of the last studied period.

A rule of thumb is that if the IRR exceeds the assumed cost of capital (20%), the project is financially viable; for mutually exclusive alternatives, the option with the higher NPV is preferred, and the IRR is used as an additional test of sensitivity to the cost of capital.

Cash flows S_t are formed taking into account the specifics of perennial crops: initial investments in establishing a plantation (planting material, soil preparation, drip irrigation, supports, planting), annual operating costs (protection, nutrition, water and energy, labor, maintenance) and revenue taking into account the gradual entry of plantations into fruiting. The calculation was performed for an area of 10 hectares; approximate yields: sea buckthorn - 130 centners/hectare, blueberries - 75–80 centners/hectare. A breakdown of the investment and cost components for the sea buckthorn cultivation project is given in Table 5.9 and serves as the basis for constructing four-year flows and assessing NPV/IRR.

Table 5.9

Cash flow calculations for a sea buckthorn growing project

Sea buckthorn				
Years	Project revenue, UAH	Initial investments and expenses, UAH	Net cash flow, UAH	Discounted payments, UAH
-	0	2790000	-2790000	-2790000
1	0	600000	-600000	-500000
2	0	340000	-340000	-236111
3	5453300	256000	5197300	3007696
4	6537000	242000	6295000	3035783
Together	11990300	4228000	7762300	2517368

Source: built by the author

For sea buckthorn as a perennial crop, cash receipts appear only from the third year of vegetation: in the zero, first and second years, only investment and operating expenses are formed (Table 5.9). At a discount rate of 20%, the amount of the presented (discounted) flows is UAH 2,517,368, which corresponds to the NPV of the project over a four-year horizon. The positive result obtained indicates an increase in the value of the enterprise provided that sea buckthorn plantations are implemented and confirms the financial feasibility of the investment in the selected scenario.

For blueberries, the investment profile is different: lower initial costs for establishing a plantation are combined with more demanding agricultural conditions (constant soil acidity, irrigation control), which is capitalized in a higher market price of berries. The output of commercial fruiting also falls on the

third year, which determines the structure of flows presented in Table 5.10, and is further compared with the sea buckthorn option using NPV and IRR criteria.

Table 5.10

Cash flow calculations for a blueberry growing project

Blueberry				
Years	Project revenue, UAH	Initial investments and expenses, UAH	Net cash flow, UAH	Discounted payments, UAH
-	0	1350000	-1350000	-1350000
1	0	396000	-396000	-330000
2	1353000	340000	1013000	703472
3	1526000	254000	1272000	736111
4	2014000	246000	1768000	852623
Together	4893000	2586000	2307000	612206

Source: built by the author

For a consistent comparison of alternatives, it is appropriate to move from comparing NPV to the internal rate of return indicator, which reflects the marginal discount rate at which the present value of future cash flows equals the initial investment. In our case, both projects generate added value at a rate of 20%, but their margin of safety differs: discounting the cash flows of sea buckthorn generates a significantly higher present value, while blueberries, despite early receipts from the second year, are inferior due to higher operating costs and technological sophistication.

For a comprehensive comparison, we will use the IRR indicator.

$$IRR = \left(\frac{S_n}{I_0}\right)^{1/n} , \quad (5.4)$$

Where S_n — income for period n ;

I_0 – the amount of initial costs

For a sea buckthorn growing project, this value will be:

$$IRR = 1 - \sqrt[3]{\frac{11990300}{4228000}} = 41.7\%, \text{ while for growing blueberries it will be:}$$

$$IRR = 1 - \sqrt[3]{\frac{4893000}{2586000}} = 23,6\%.$$

After substituting the calculated flows into the IRR formula, we obtain that the internal rate of return for sea buckthorn is about 42%, and for blueberries - about 24%, i.e. both scenarios exceed the accepted discount rate, but the advantage of sea buckthorn is significant. This means that the sea buckthorn project maintains profitability over a wider range of possible fluctuations in prices, yields and costs and at the same time provides a higher sensitivity of profit to the invested capital. Given the combination of a higher NPV and a higher IRR, it is the establishment of a sea buckthorn plantation that is economically justified as a basic investment for STOV "AF VELIKY KHUTIR", while blueberries should be considered as an auxiliary direction of diversification after the launch of the main project.

The concept for the joint-stock company "AF Velikiy Khutir" was based on a combination of market and production determinants: the dynamics of demand for niche berries, the agroclimatic suitability of the site, the existing resource profile of the farm and the comparative capital intensity of alternatives. Additionally, the time structure of cash flows (harvest horizon), sensitivity to price and yield fluctuations, as well as the results of financial efficiency criteria (NPV, IRR) were taken into account. The combination of these factors formed the choice of the basic direction - the establishment of a sea buckthorn plantation - as

one that provides the best profitability at an acceptable risk and meets the operational capabilities of the enterprise.

Next, we turn to the BOGDANIVSKE JOINT STOCK COMPANY. In this case, the starting point is not product diversification, but the material and technical prerequisites for growth: the structure and cost of fixed assets, their technical condition, the pace of renewal and the level of equipment utilization. It is the assessment of these parameters that will allow us to outline investment priorities, identify productivity bottlenecks, and justify the configuration of the modernization project.

Methodologically, the assessment of the efficiency of MTZ is based on two interrelated blocks: (1) the effectiveness of asset use (capital return/fund return, capital intensity, capital equipment, profitability of fixed assets) and (2) technical condition and reproduction (depreciation, suitability, renewal and disposal coefficients; indicators of fixed assets movement). To deepen the conclusions, the actual load of equipment and machinery is additionally assessed - through partial indicators of fund return of individual groups of machines, units and production areas. This approach allows not only to record the fact of changes in the value of assets, but also to identify "bottlenecks" in the use of capacities.

According to available data, the average annual cost of fixed assets of BOGDANIVSKE JOINT STOCK COMPANY increased during 2018–2020: UAH 29,586 thousand in 2018, + UAH 1,415 thousand in 2019, to UAH 32,046 thousand in 2020. This indicates a gradual restoration and increase in production potential, but requires checking the balance between renewal and disposal and assessing the actual return on each hryvnia invested in assets.

The dynamics of fixed assets reproduction (renewability, retirement, wear and tear and suitability coefficients), which determine the stability of the enterprise's investment base and the risks of technological backwardness, are presented in Table 5.11. These indicators are the starting point for further substantiation of investment decisions regarding the modernization of the equipment fleet and optimization of the structure of MTZ.

Table 5.11

Main traffic coefficients of the BOGDANVSKE CO., LTD.

Odds	2018	2019	2020	Difference between 2020 and 2018
Renewal	0,34	0,55	0,88	0,54
Elimination	0,28	0,87	0,31	0,3
Growth	0,42	0,63	0,66	0,24
Demolition	0,35	0,91	0,24	-0,11
Eligibility	0,92	0,96	0,99	0,07

Source: constructed by the author based on financial statements

The fixed assets turnover ratios shown in Table 5.11 reflect the gradual renewal of the fleet of equipment and the improvement of its technical condition. The renewal ratio increased from 0.34 in 2018 to 0.88 in 2020, which indicates an increase in investments in asset reproduction. After a temporary peak in 2019, disposals returned to a moderate level of 0.31, and the depreciation ratio decreased from 0.35 to 0.24. In line with this, the suitability indicator increased (0.92 - 0.99), i.e. the share of technically sound assets in the structure of funds is increasing. Taken together, these changes mean that the enterprise is moving from operating obsolete machines to more technological solutions, which creates the prerequisites for increasing productivity and reducing unit cost.

At the same time, the dynamics indicate the need to formalize the asset life cycle policy: planning capital investments according to the priorities of

bottlenecks, timely decommissioning of inefficient equipment and ensuring service support for new machines. The indicators of economic efficiency of fixed assets use allow us to assess the extent to which these investments are already being transformed into operating results. Next, we will consider changes in return on capital (return on assets) and related indicators, given in Table 5.12.

Table 5.12

Capital return (fund return) STOV "BOGDANIVSKE"

Year	Annual income from product sales, thousand UAH.	Average annual cost of fixed assets, thousand UAH.	Capital appreciation (return on investment)
2018	16017,37	28925,13	1,80
2019	17601,50	30447,50	1,73
2020	18725,00	32050,00	1,71

Source: constructed by the author based on financial statements

The indicators in Table 5.12 show: against the background of an increase in the average annual cost of fixed assets, the return on assets decreased from 1.80 in 2018 to 1.71 in 2020. Such dynamics are typical for phases of active renewal: the introduction of new machines temporarily outpaces the increase in output, part of the capacities undergo adjustment and development, which in the short term dilutes the result by UAH 1 of fixed assets. As the modernized fleet is fully loaded, a recovery in the return on assets growth is expected.

For a more complete interpretation, it is advisable to consider capital intensity as an inverse indicator of return on assets, showing how many hryvnias of fixed assets are accounted for per 1 hryvnia of sold products. This allows us to assess the resource capacity of production and the sensitivity of cost to changes in the structure of funds. The corresponding calculations are given in Table 5.13.

Table 5.13

Capital intensity (fund intensity) of the enterprise**STOV "BOGDANIVSKE"**

Year	Annual income from product sales, thousand UAH.	Average cost of funds per year, thousand UAH.	Capital intensity (fund intensity)
2018	16017,37	28925,13	0,55
2019	17601,50	30447,50	0,58
2020	18725,00	32050,00	0,58

Source: constructed by the author based on financial statements

The indicators in Table 5.13 indicate a moderate increase in capital intensity from 0.55 in 2018 to 0.58 in 2020. Since capital intensity is an inverse indicator of capital return, its increase means higher fixed asset costs per UAH of sold products. This is natural for the active renewal phase: the introduced capacities are not yet fully loaded, some of the machines are at the development stage, which temporarily increases the resource capacity of production. The management goal is to return to the trajectory of reducing capital intensity due to fuller loading, reducing downtime and increasing the productivity of new equipment.

The level of technical equipment of labor should be assessed by the capital equipment indicator (fund equipment) - the ratio of the average annual cost of fixed assets to the number of personnel. The growth of this indicator, other things being equal, reflects the deepening of mechanization and the potential for increasing labor productivity; at the same time, an excessive increase without a corresponding increase in output increases the depreciation burden on the cost price. The dynamics of capital equipment are shown in Table 5.14.

Table 5.14

Capitalization (funds) of the enterprise STOV "BOGDANIVSKE"

Year	Average number of employees, people.	Average annual cost of fixed assets, thousand UAH.	Capitalization (funds), thousand UAH
2018	125	28925,13	231,40
2019	123	30447,50	247,54
2020	120	32050,00	267,08

Source: constructed by the author based on financial statements

Given the above results, the increase in capital equipment from 231.4 to 267.08 thousand UAH/employee in 2018–2020 is evidenced by a combination of organizational streamlining of work and a phased renewal of the machine and technological park. Against the background of a temporary decrease in capital efficiency and an increase in capital intensity, this corresponds to the early phase of the investment cycle: assets have already been put into operation, but are not yet fully loaded, while the technical equipment of labor and the potential for productivity are increasing. For STOV "BOGDANIVSKE" the immediate management focus is to bring the loading of updated equipment to standards, minimize downtime and synchronize the structure of fixed assets with the seasonal "wave" of work. This creates the prerequisites for returning capital intensity to a downward trajectory and restoring the growth of capital efficiency without additional pressure on costs.

The results of the study demonstrate two complementary investment logics. For STOV "AF VELIKY KHUTIR" the market feasibility of diversification into a highly profitable niche is decisive: a comparative assessment of NPV and IRR fixes the advantage of the project of establishing a sea buckthorn plantation over the blueberry alternative, which provides a better profitability profile and resistance to price, yield and cost variations. For STOV "BOGDANIVSKE" the key factor is technical and production capacity: the effect of investments is

determined by the pace and quality of reproduction of fixed assets, their structure and operating mode.

The coordination of these two contours – “market” and “technological” – forms a practical logic of development: in the first case, investments are directed to products with higher margins, in the second – to capabilities that reduce costs and increase productivity. Accordingly, it is advisable to make investment decisions based on formalized profitability criteria (NPV/IRR) and risk and, in parallel, manage asset reproduction through a KPI system (return on capital, capital intensity, capital equipment, renewal/disposal ratios). This approach harmonizes investment planning with strategic management of the development of agribusiness enterprises.

5.4. Analysis of risks and means of their neutralization

The inability to completely eliminate uncertainty is a basic characteristic of agribusiness; therefore, the activities of STOV "AF VELIKY KHUTIR" are a priori accompanied by risk. Unlike most non-financial sectors, agricultural production simultaneously accumulates economic, institutional, legal and operational risks, as well as natural and climatic threats (prolonged rainfall, droughts and dry spells, hail, soaking or freezing, etc.), which can cause significant losses of crops and cash flows. That is why systematic identification, measurement and management of risks is a mandatory prerequisite for the investment capacity and financial stability of the enterprise.

The regulatory framework of the state agrarian policy (the Law of Ukraine “On the Basic Principles of the State Agrarian Policy”) provides for the support of insurance protection instruments for producers. The practical value of this framework is revealed only if the enterprise builds its own integrated risk

management system: forms a register of risks, determines their sources, probabilities and the scale of possible losses; compares risks with available hedging mechanisms (crop/animal insurance, price derivatives, forward contracts, reserve funds, diversification of crops and technologies, agrotechnical and infrastructure measures for adaptation to weather).

In terms of economic theory, risk is interpreted as the probability of deviation of actual results from expected ones, which is manifested in under-receipt of income or excess of expenses. To neutralize such deviations, STOV "AF VELIKY KHUTIR" should combine financial instruments (insurance, reserving, credit limits with covenants) and technological/operational solutions (crop rotation with cultural diversification, stress-resistant varieties, irrigation/drainage, anti-hail measures, storage and logistics standards).

Taking into account the industry specifics, the enterprise faces almost the full range of risks, however, for further analysis, a group of key ones, critical in terms of impact on productivity, cost and liquidity, has been identified. Their structured list, factors of occurrence, early warning indicators and basic neutralization tools are presented in Table 5.15, which serves as a risk register for making further investment and operational decisions.

Table 5.15

Main risk groups in agriculture

Risk group	Type of impact	Potential negative outcomes
1	2	3
Natural and climatic	Droughts, desertification, soil salinization and other erosion processes	Loss of part or all of the crop
Technogenic	Land contamination with hazardous chemical elements	Deterioration of the ecological state, reduction of soil quality

Continuation of Table 5.15

1	2	3
Anthropogenic	Use of agricultural technologies that lead to land degradation	Gradual loss of soil fertility, reduction in nutrient concentration
Economical	Use of outdated, inefficient technologies	Formation of inflated cost, loss of product competitiveness

Source: constructed by the author based on [30]

Insurance should be considered as a basic tool for neutralizing and transferring agricultural risks. Despite the limited product offer, incomplete coverage, and small number of providers (only about a fifth of companies have the appropriate licenses), its use creates tangible economic benefits: it smooths out income fluctuations and allows for more accurate planning of production programs; facilitates access to credit resources by reducing the risk premium; reduces the likelihood of losses due to insurance claims; indirectly improves social stability in rural communities, increasing the confidence of those employed in the sector.

The formation of the agricultural insurance market in Ukraine is taking place more slowly than the growth of the industry's gross output: the coverage level remains at around 3–5%. The regulatory framework provides for two regimes: voluntary insurance without state intervention and insurance with state support (subsidization of part of the insurance premium in accordance with Law No. 4391 of 2012). According to the results of our research, in the underwriting year 2018, 12 licensed insurers actually operated on the market; summarized indicators of their activities are presented in Table 5.16.

Table 5.16

Summary of insurance data by insurance companies, 2018

Company	Number of contracts	Area, hectares	Insured amount, thousand UAH	Amount of premiums, thousand UAH	Average premium rate	Payments, thousand UAH
AHA	179	73237	639 401,9	13 521,8	2,1%	1 907
Primary Health Care	345	179335	1520716,7	33820,3	2,2%	3577
Rock	158	140508	562676,9	17434,1	3,1%	1635,6
Brock Business	62	120334	234337,9	3905,1	1,7%	0
Guarantor – System	2	2	31	0,8	2,6%	0
The Guardian	35	12549	99 652,3	4 616,5	4,6%	0
Ingo Ukraine	236	203 567	872 278,7	21 739	2,5%	499,7
Country	52	39 824	364 157,3	15 276,2	4,2%	884,7
Mega-Guarantee	1	1 004	13 501	54	0,4%	0
STONE	6	1 725	22 066	957	4,3%	0
UASC	5	6 224	189 544	189 544,6	7,1%	0
Universal	126	195 494	2 156 542,8	84 012,4	3,9%	174
Overall/Average	1 207	973 803	6 674 906,7	208 844	3,1%	8 678,3

Source: constructed by the author based on [37]

Analysis of the aggregated data (Table 5.16) shows that the domestic agricultural insurance market remains relatively narrow in terms of the number of active providers, but it demonstrates gradual institutional maturity. The total insured amount in 2018 was UAH 6,674.9 million for over 970 thousand hectares, and the increase in areas compared to 2017 exceeded 285 thousand hectares. This means that insurance tools are increasingly integrated into the financial strategies of agricultural producers, despite the uneven coverage and different quality of products across companies.

Insurance protection should be combined with production mechanisms to reduce risk. The key one is diversification – a targeted expansion of the product portfolio and/or sales markets with the redistribution of income fluctuations

between types of activity. For an agricultural enterprise, this may mean introducing parallel crops with different seasonality and sensitivity to weather factors, adding processing or entering into related services (storage, logistics, contract growing). In crisis phases of the economy, such multi-vectority mitigates the decline in cash flows and reduces the likelihood of cash gaps; in growth – it allows you to accumulate investment resources faster than with mono-linear specialization.

The need for diversification is usually manifested through the diagnosis of a “performance gap”: the gap between target performance indicators and actual trends (reduction in the order book, reduced equipment utilization, falling margins). Assessing the potential for diversification requires a separate study of the technological, market and financial constraints of the enterprise and choosing the scale of intervention - from point expansion within the existing specialization (“narrow” diversification) to entering new segments or geographies (“broad” diversification). Generalized forms of diversification strategies are shown in Fig. 5.4.

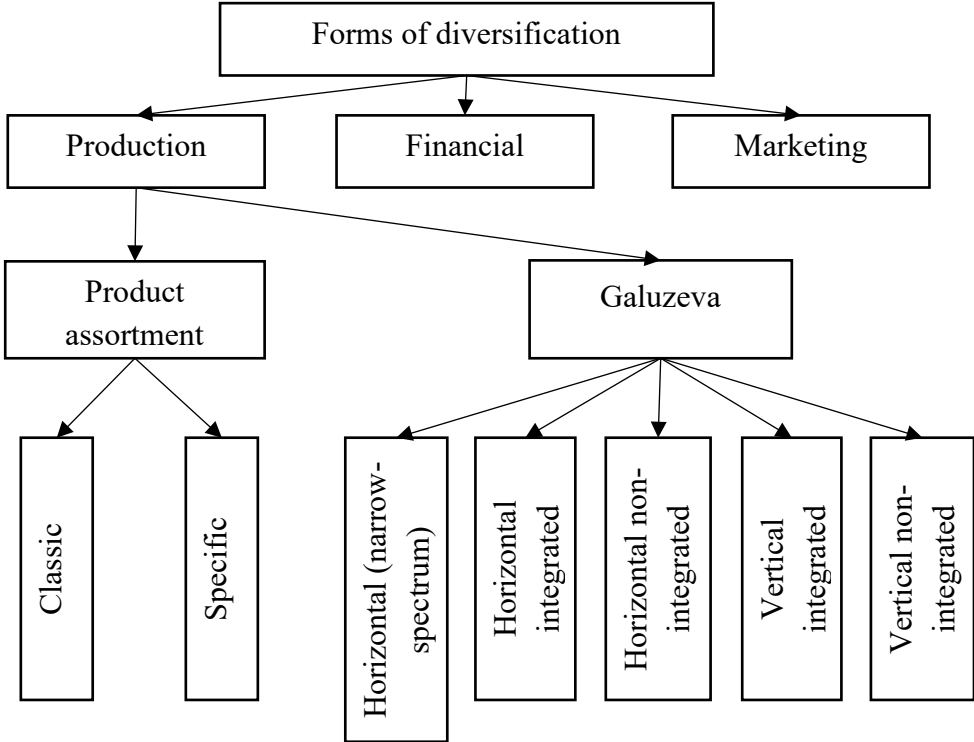


Fig. 5.4. Forms of production diversification

Source: constructed by the author based on [37]

The risk neutralization strategy proposed for the joint-stock company "AF VELIKY KHUTIR" combines a financial instrument (agricultural insurance) with production diversification. The optimal form of diversification in the conditions of the farm is the classic product-assortment: expansion of the line within the framework of a common technological base, without radical changes in the fleet of machines and personnel structure. This minimizes investments in re-equipment and training, shortens the transition period and reduces operational risks.

Within this logic, it is advisable to integrate sea buckthorn processing at its own facilities (oil, tea, frozen berries). Demand for sea buckthorn products in Ukraine is growing faster than supply, which creates favorable margins; at the same time, a significant part of the necessary equipment is identical to that already available for sunflower oil and drying/freezing, and its capacity is sufficient for a start-up horizon of 3–5 years. Thus, the company gets the opportunity to turn price and weather fluctuations into more stable cash flows by increasing the share of value-added products.

The combination of insurance coverage and product integration (pilot sea buckthorn processing module with phased scaling) proposed for STOV "AF Velikiy Khutir" forms a managed risk architecture: the share of insured areas and revenue variability serve as indicators of risk tolerance, the processing margin and inventory turnover - of operational efficiency, and the share of processing income - of market dynamics. Such a configuration strengthens financial stability and creates a basis for further investment growth.

Continuing the risk analysis within the section, in the case of the BOGDANIVSKE STOV, the emphasis is shifted from product insurance instruments to the logistics circuit as a key factor in operational reliability. Transportation here is mainly short and medium-sized (intra-farm and district), which increases the sensitivity of the results to downtime, idling and technical readiness of rolling stock. Significant physical wear and tear of trucks, together

with an underestimation of the profitability of transport operations in reporting, leads to an underestimation of the actual cost of a ton-kilometer and a loss of the potential return on assets. Under these conditions, logistics cannot be considered as an auxiliary function: its efficiency directly affects the cost of main crops and the ability of the enterprise to fulfill contractual obligations during peak periods.

We further assess the efficiency of transport operations through a system of agreed indicators that reflect three interrelated areas: fleet utilization (output per line, turnover rate, share of useful time), technical readiness (share of serviceable vehicles, downtime for technical reasons) and transport productivity (load level, turnover, share of idle mileage, cost per ton-kilometer, revenue per vehicle-kilometer). The values of these indicators and their dynamics are shown in Fig. 5.5–5.7; they form the analytical basis for management decisions on optimizing routes and maintenance schedules, reducing idle kilometers, increasing the technical readiness rate and, if there is demand, developing paid logistics services for external contractors.

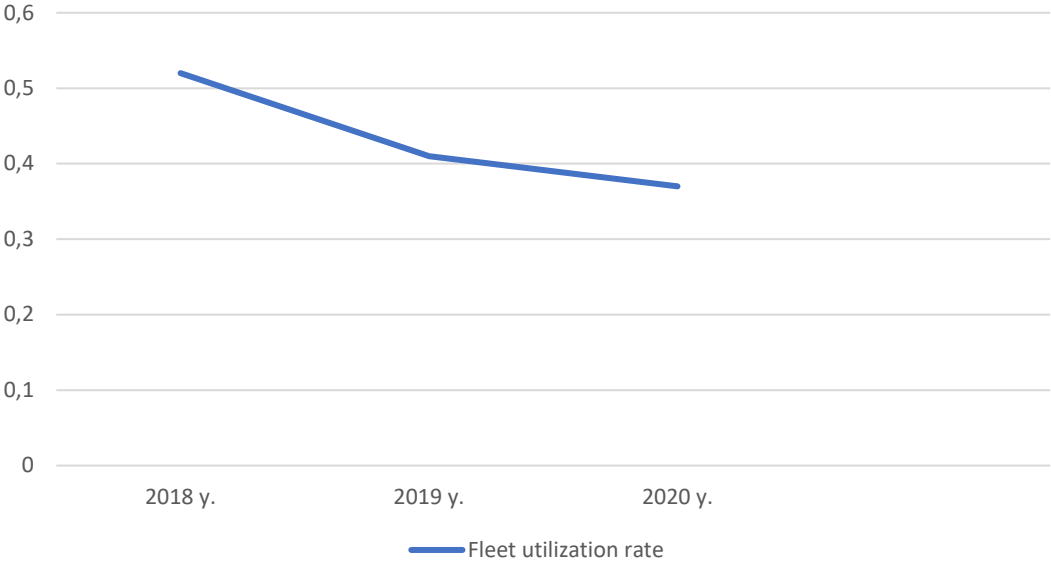


Fig. 5.5. Coefficient of use of the vehicle fleet of the enterprise STOV “BOGDANIVSKE”

Source: constructed by the author based on financial statements

The dynamics of the fleet utilization rate has a downward trajectory during 2018–2020, which indicates a systemic underutilization of rolling stock. For an agricultural enterprise, this means a higher specific constant component of costs (depreciation, insurance, driver wages) per ton-kilometer and increased operational risk during peak periods of field work. The probable root causes are uneven flow between seasons, downtime during loading/unloading, gaps between the schedules of field crews and transport, as well as low quality dispatching. To reduce risks, it is advisable to: hourly planning of trips for technological operations, shift equalization (morning/night grain deliveries), concluding short contracts for outsourcing transportation on peak days, and introducing the KPI “machine-hour of useful work/total machine-hour”.

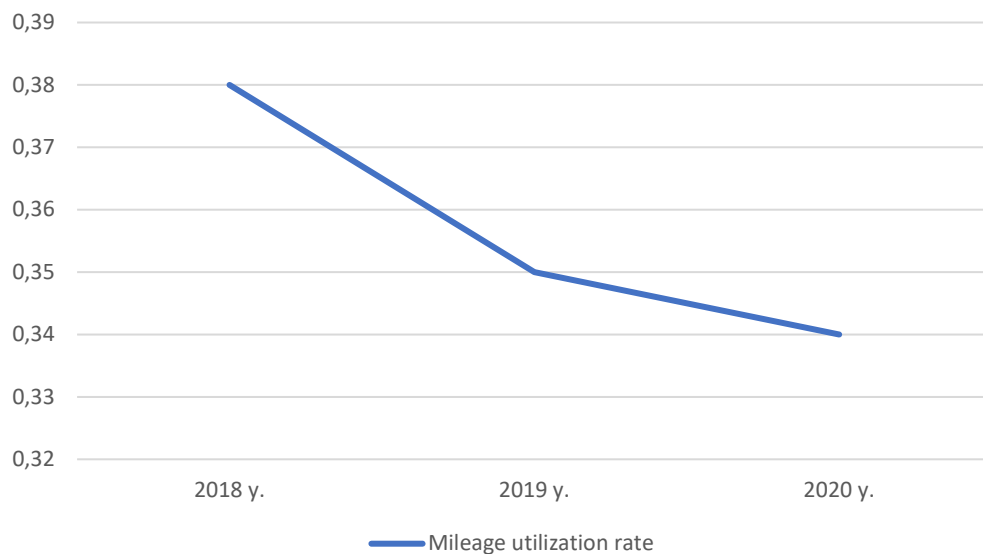


Fig. 5.6. Coefficient of transport mileage utilization of the “BOGDANIVSKE” STOV

Source: constructed by the author based on financial statements

Mileage utilization is also decreasing, indicating an increase in idle kilometers and irrational routing. In such conditions, the variable cost per ton-kilometer (fuel, tires, repairs) increases and there is a risk of non-fulfillment of

contractual delivery deadlines during periods of intensive collection. Key areas for improvement:

- operational routing with cargo consolidation (combining fields and warehouses into “circular” flights);
- organization of “reverse” loading (seeds/crops to the field – grain/straw back);
- short intermediate transshipment points near the fields (temporary banks, mini-elevators) to minimize downtime;
- GPS telematics for monitoring idling and flight discipline;
- system KPIs: share of loaded km, ton-km per vehicle-day, average flight turnaround time.

Fig. 5.7 will consider the technical availability ratio as a critical indicator of downtime risk: its decrease directly reduces the available fleet on key campaign days and enhances the effect of underload and idling, so technical reliability should be analyzed together with organizational dispatching measures.

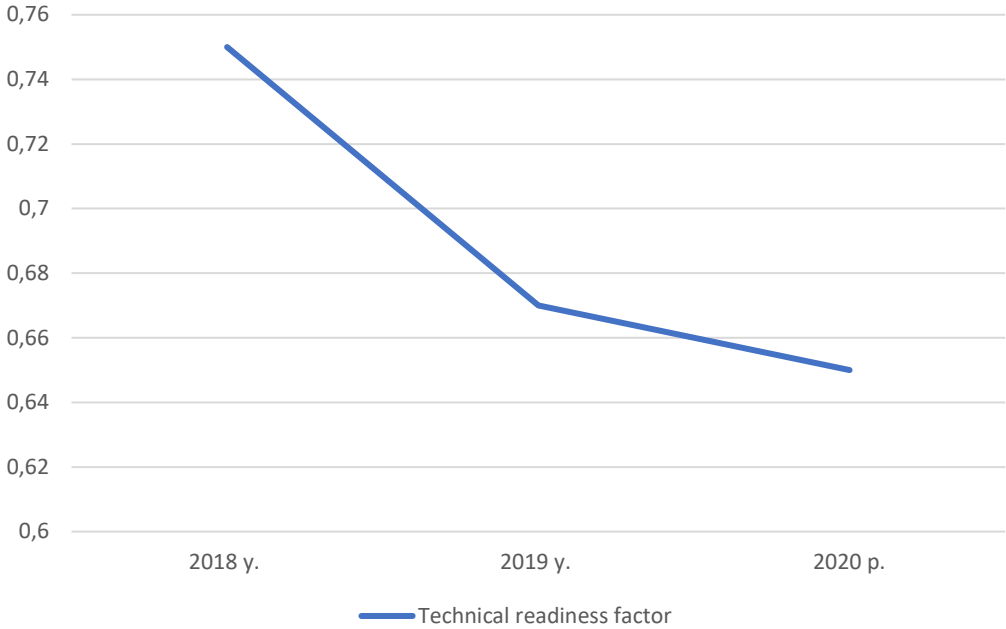


Fig. 5.7. Technical readiness coefficient of the vehicle fleet of the BOGDANIVSKE METAL WORKSHOP

Source: constructed by the author based on financial statements

The technical readiness curve (Fig. 5.7) shows a steady decline from 0.75 to 0.65 in 2018–2020, reflecting the accumulation of deferred repairs and partial scrapping of equipment during attempts to upgrade it. According to the results of reconciliation with the flight performance standards, the level of vehicle utilization is 91.1%: the rest of the time is idle during loading/unloading and repairs. This directly increases unit costs and the risk of non-fulfillment of contract deadlines during peak periods.

The cost of transporting 1 ton per 1 km in 2018–2020 increased by UAH 1.5 (+64%). The main drivers are the increase in the price of fuel and spare parts, as well as the high share of labor costs (approximately 33.1% in the cost structure). Under such conditions, the efficiency reserve lies not only in “expanding the fleet”, but primarily in increasing the readiness and load of existing machines and in the transition to total cost of ownership (TCO) management.

The rational sequence of actions is as follows. First, the minimum required fleet size is determined to cover domestic demand (ton-km/day during the peak week, taking into account a reserve of 10–15% for repairs). Next, the fleet composition is optimized according to TCO: a comparison of alternatives (renewal/overhaul/leasing/outsourcing) taking into account fuel efficiency, tire life, maintenance intervals, and residual value. In parallel, the following are implemented: planned preventive maintenance based on conditions (RCM), centralized flight dispatching, “ring” routes with cargo consolidation and reverse loading, GPS telematics for monitoring idle mileage and flight discipline. To manage risks, it is advisable to have service contracts for key nodes, a minimum “hot reserve” inventory, and contractual quotas with contract carriers for peak days.

The management system should be based on measurable indicators: technical readiness ratio; share of loaded kilometers; average trip turnaround time;

machine hours of useful work; fuel and repair costs per 1,000 km; cost per ton-kilometer and deviations from the plan. Increasing these metrics to target values reduces the company's sensitivity to fuel price fluctuations and equipment shortages, reduces operational risks and forms the basis for economically justified fleet renewal.

In the transportation of agricultural products, the primary priority is to preserve the presentation and quality of the cargo, as well as the transport's compliance with the requirements of technical serviceability, sanitation and safety (if necessary, body preparation, washing/disinfection, temperature regime, fastening of containers) [40]. The operational context of agrologistics is complicated by seasonal peaks in harvesting work, uneven loading throughout the year, a significant proportion of dirt and damaged roads, limited equipment availability and high uncertainty of yield, which is influenced by factors beyond the control of the enterprise. Additional losses are formed by operational errors and irrational use of fuels and lubricants (FMM) [28], [40].

Minimizing the cost of transportation is based on a direct impact on the consumption of fuel and spare parts: reducing idle runs through reverse loading, routing and consolidation of shipments; compliance with weight and tire pressure standards; driving style control; planned and preventive maintenance. A typical mistake is effective work only “in one direction” with an empty return, which increases ton-kilometer costs [29], [40]. Part of the effect is provided by the use of road trains and tractor tractors on short shoulders (domestic trips), and for small batches - the transition to low-tonnage vehicles: fuel savings can be 20–30% due to the correspondence of the load to the capacity of the vehicle [37], [40].

The key condition for efficiency is the constant technical readiness of rolling stock and full provision of resources for vehicle preparation. It is advisable to introduce progressive forms of logistics organization: centralized dispatching, telematics, “ring” routes, service contracts for critical nodes, as well as accurate accounting of MTZ and costs linked to the trip/vehicle (TCO approach) [29], [37].

Evaluating the operation of the fleet is impossible without a system of utility, return and payback indicators. The utility indicator (ratio of load capacity to its own weight) should exceed 1; the payback coefficient (intensity of use/resource) with proper operation should be >0.5 [40].

Taking into account the current trends of fleet reduction (in Ukraine, minus 24.5–30% of cargo units in recent years; in Cherkasy region – about 34%) due to obsolescence and untimely service, agricultural enterprises need adjustments in the organization of equipment use: renewal through leasing/trade-in based on TCO, outsourcing peak transportation, standardization of PPR, implementation of KPIs (share of loaded km, cost price per ton-km, technical readiness coefficient, flight turnover). This reduces the risks of supply disruptions and stabilizes the cost price in seasonal “bottlenecks” [40].

The results of the analysis indicate a structural deficit in fleet management and underutilization of existing equipment. The decline in load factors, mileage and technical readiness means that the cost base is formed mainly by fixed costs, while the useful output of tonne-kilometers does not grow proportionally. Under such conditions, even a slight reduction in downtime and idle flights gives a disproportionately greater effect in the cost of 1 tkm. According to the logic of the total cost of ownership (TCO), it is advisable to separate: (1) fixed costs - depreciation, insurance, taxes, personnel and infrastructure maintenance; (2) variable - fuel, tires, repairs, crew wages, road tolls [38]. Further logistics redesign should focus on reducing variable costs per unit of useful work through increasing technical readiness and operational discipline.

An economically sound scenario involves a transition from reactive repairs to planned and preventive maintenance based on telematics: monitoring engine life, temperature conditions, fuel consumption, and driving habits. In combination with the “milk ring” routing, shipment consolidation, and reverse loading system, this allows minimizing idle runs, stabilizing

schedules, and reducing cost fluctuations during peak collection periods. It is advisable to align the rolling stock with real trip profiles: small-tonnage vehicles for small-batch transportation on short shoulders, road trains/tractor trucks for mass seasonal flows; refrigerators only for batches with temperature requirements. Such calibration reduces machine oversizing and the associated fuel losses.

The choice between contracting and own equipment is rationally decided due to the critical volume of work:

$$W = \frac{Pv}{Vp - Sv}, \quad (5.5)$$

Where W – the volume of work at which the break-even operation of own equipment is achieved compared to its subcontracting;

Pv – fixed costs for equipment maintenance during the year, UAH;

Vp – cost of equipment contract per unit of work, UAH;

Sv – variable costs for equipment maintenance per unit of work, UAH.

For volumes W it is economically justified to involve contractors; for higher ones, investments in one's own fleet (purchase or financial/operational leasing). At the same time, it is advisable to hedge the price risks of fuel and lubricants with long-term contracts with fuel suppliers tied to stock market indicators, and the repair part with “full service” service contracts with a fixed rate per km. For cost discipline, KPIs should be introduced: technical readiness (% of time), share of idle mileage, fuel consumption per 100 km by model, cost price of 1 tkm, share of trips with reverse loading, level of schedule execution. Their monthly tracking and connection with driver and mechanic bonuses quickly changes behavioral patterns.

The reserve assessment shows the potential for “quick wins”: doubling the share of full-load mileage (through consolidation of applications and aggregation with local farms) and 2–3 times increase in transportation volumes in the high

season without an equivalent increase in costs – thanks to the elimination of downtime, dispatching, and a more flexible mix of machine types. The cumulative effect will be reflected in a reduction in the cost of a ton-kilometer, increased reliability of contract fulfillment, and, as a result, in an increase in the marginality of crop production.

A comparative analysis of the joint stock company "AF Velikiy Khutor" and the joint stock company "BOGDANIVSKE" highlights two complementary dimensions of risk management in agrarian business - financial-strategic and operational-logistical. In the first case, natural-climatic and price risks dominate, which are expedient to transform and distribute through agricultural insurance (mandatory/voluntary programs co-financed by the state) and product-assortment diversification. The vertical integration with added value (sea buckthorn processing) recommended for "Veliky Khutor" reduces revenue volatility and increases capitalization per hectare: part of the harvest is monetized in the form of oil/teas with more stable prices, while insurance covers the tails of the distribution of yield losses. Key risk tolerance indicators are the share of insured areas and assets, revenue variability coefficient, marginal profitability of processing, and inventory turnover of processed products.

In the second case, the critical source of risk is the transport subsystem, which indirectly forms the cost of the main crops. Low technical readiness, significant idle mileage and reactive repairs increase the sensitivity of costs to seasonal peaks and fuel prices. Neutralization of these risks is achieved through investments in manageability: telematics, planned and preventive maintenance, routing and reverse loading, optimization of the fleet composition, contractual mechanisms with service providers and fuel companies, and the “own fleet vs. contract” solution – through the calculation of the break-even volume (3.1). The advantage of these measures is that they simultaneously reduce risk and increase efficiency (the “double dividend” effect): cost stabilization, supply predictability and margin growth.

The synthesis of the results of both cases allows us to formulate a practical risk management model for enterprises of the studied profile:

- Risk transfer and distribution: crop and fixed asset insurance, long-term contractual relationships with fuel and lubricants suppliers, full service packages.
- Risk reduction at the process level: value-added product diversification (processing), standardization of agricultural technologies, data-driven fleet management, elimination of downtime and idling.
- Risk absorption: operational reserves (stocks, backup routes, machine interchangeability), financial buffers for peak periods.
- Monitoring and accountability: KPI system and monthly "risk dashboards" for the board with a focus on revenue variability, insurance coverage, cost of 1 tkm, technical readiness, share of reverse loads, percentage of schedule execution.

The proposed logic combines strategic decisions (insurance, recycling, fleet structure) with operational practices (MRO, routing, telematics), ensuring simultaneous risk reduction and economic return growth. As a result, a sustainable foundation for investment growth is formed: capital is invested in projects with a forecasted cash flow, and the production system is unified and data-driven, which reduces uncertainty and increases competitiveness in the medium term.

5.5. Directions for increasing the profitability of an investment project

Increasing the profitability of investment projects in domestic agribusiness requires a combination of strategic decisions (financing structure, investment portfolio, value-added creation model) with operational mechanisms (cost, risk and asset productivity management). The development of market relations,

integration processes and global competition shift the point of optimum: competitiveness is ensured not only by scale and access to resources, but also by the ability to quickly convert investments into a stable cash flow.

The Ukrainian context simultaneously complicates and stimulates investment activity. Budgetary constraints, the unavailability of long and predictable credit lines, the fragmentation of the insurance market, and the weakness of the venture infrastructure reduce the share of projects with a classic debt leverage; innovative activity of business remains low (the share of enterprises implementing innovations in 2019 was about 16%; the number of types of innovative products is several times smaller than in the mid-2000s) [6]. Against this background, banks avoid long-term lending, which increases the value of internal sources of financing, partnership formats, and leasing solutions, and also forces enterprises to build anti-crisis liquidity management strategies that can withstand market volatility [23].

Based on the results of the study, it is advisable to outline state policy instruments that can increase the profitability of investment projects in agribusiness. First, a systematic formation of the investment resource base is required through fiscal and customs and tariff mechanisms with targeted allocation of funds to innovation. Second, the accumulation of domestic savings of the population should be based on a developed system of social and pension insurance, capable of transforming contributions into a long-term investment resource. Third, the activation of the stock market and its infrastructure creates channels of market financing for enterprises of various scales. Fourth, tax support for venture funds stimulates the financing of risky but highly profitable innovations. Fifth, it is critically important to improve business access to long-

term loans (including through partial rate compensation programs and guarantee instruments). The combined implementation of these measures increases the efficiency and profitability of investment, strengthens the competitiveness of products in foreign markets, and supports the stability of the economic system.

Transferring the conclusions to the proposed investment project for the joint-stock company "AF VELIKY KHUTIR" requires two complementary solutions: optimizing the structure of financing start-up costs and building a model of added value based on processing. It is advisable to form start-up capital not exclusively at the expense of own funds, but as a balanced combination of bank credit/leasing and partner financing - this reduces the opportunity cost of own capital and increases the return on capital. From the point of view of the operating model, margin maximization is achieved not by selling raw materials, but by deep processing of the crop: for sea buckthorn, it is economically justified to expand the production of oil, tea and jams at its own facilities.

The necessary minimum of technological equipment – a machine for cold pressing frozen berries, a dryer and an industrial freezer – provides a basic product portfolio and allows for scaling. The approximate range of investments in such equipment is 140–150 thousand UAH, which is acceptable for the Joint-Stock Company “AF VELIKY KHUTIR” and correlates with the production capabilities of the enterprise (Table 5.17). It is advisable to implement processing in stages: a pilot line with further capacity expansion based on the results of the first seasons, in parallel – streamlining sales channels (contracting HoReCa and processors, regional retail, online channels), quality certification (HACCP/ISO 22000) and setting up accounting for product margins. The expected effect is a reduction in the capital turnover period, an increase in gross margin due to the

conversion of raw material flow into product flow, and a reduction in revenue volatility due to seasonal and price fluctuations.

Table 5.17

Economic characteristics of sea buckthorn production

Product type	Price per 1kg	Yield from 1 kg	Weight of the product unit, g	Unit price of goods, UAH	Initial costs, UAH	Current expenses per year, UAH
Fresh sea buckthorn	120	100,00%	1000	120	-	234000
Frozen sea buckthorn	75	100,00%	1000	75	31000	
Sea buckthorn oil	370	12,00%	350	130	9700	
Dried sea buckthorn	455	30,00%	100	45,5	36000	
Sea buckthorn tea	270	28,00%	50	13,5	25500	
Sea buckthorn jam	225	-	200	45	53000	

Source: constructed by the author based on [6, 37]

The market for sea buckthorn products in Ukraine is characterized by high demand with limited supply: the number of oil producers remains small, so even products without "organic" certification find sales on foreign markets. Under such conditions, the key source of added value is the processing of the harvest into long-term storage and sales formats that reduce losses and smooth out price volatility.

The data in Table 5.17 reflect the economics of a unit of production by main items. Fresh berries have the highest selling price per kilogram, but the short shelf life significantly limits the volume of sales; the logistical windows here are narrow, and the risks of markdowns are high. This leads to the transition to shock freezing as the basic canning technology: frozen sea buckthorn is inferior in price to fresh, but ensures quality stability, the possibility of transportation over long

distances and the formation of regulated stocks. Thus, freezing serves as a “buffer” between seasonal production and uniform sales throughout the year.

The highest margins, according to the table, are formed by products with deeper processing - primarily sea buckthorn oil, as well as dried berries, tea blends and jams. Oil is characterized by a lower yield from 1 kg of raw materials, higher initial costs for pressing and preparation of raw materials, however, the premium price of the unit of the product covers the costs, ensuring better profitability per ton of harvest and reducing the need for cold storage facilities. Drying and tea blends create additional product niches with a long shelf life and lower barriers to entry, which is advisable to use as a tool for portfolio diversification.

From a managerial point of view, the optimal sales strategy involves combining channels: a limited “fresh” segment for quick monetization of part of the harvest at the peak of the season; a mass segment of shock freezing to stabilize cash flow; premium positions (oil, dried products, tea, jam) to increase the weighted average margin and enter specialized niches (pharmacies, HoReCa, e-commerce). Such a configuration turns a raw material asset into a multi-product value chain, increasing the profitability of the investment project and reducing seasonality risks.

The analysis of the economics of processing confirms the feasibility of reorienting from the sale of raw and only frozen berries to multi-stage processing with a focus on dried products and oil. The premium price of dried sea buckthorn is formed due to significant dehydration of the raw material, the energy intensity of the process and the breadth of applications in the food, pharmaceutical and cosmetic niches; as a result, a unit of harvest is monetized significantly more expensively than in the “fresh” or “frozen” form. Additional positions – tea blends and jams – rationalize the use of pulp and pulp, closing the waste-free cycle together with the extraction of oil from the stone; this increases the weighted average margin and reduces the need for cold storage.

With the selected product line configuration (freezing as a buffer of stocks + drying and oil as premium products + tea/jam as waste disposal), own processing at the farm's facilities ensures an increase in the profitability of the investment project of approximately 23% from the third year of implementation. The effect is achieved by extending the sales life cycle, increasing the share of high-value items in the portfolio and reducing technological losses. Thus, the integration of processing is a key direction for increasing the profitability of the project and is consistent with the aim of maximizing the return on investment through assortment management, operational efficiency and reducing price volatility.

Increasing the competitiveness of the economy directly depends on the modernization of fixed assets, but access to external capital for agricultural enterprises remains limited: foreign investors assess the sector as risky, and bank loans as expensive and short [22]. Under these conditions, it is advisable to use leasing as a tool for investment renewal of equipment with a controlled load on cash flows. Leasing is an economic relationship under which the lessor acquires property and transfers it to the lessee for use for a specified period for a fee, retaining ownership until the time of redemption (if such an option is available) [42]. In economic terms, leasing combines the features of renting and lending, transferring capital expenditures into predictable periodic payments.

For STOV "BOGDANIVSKE", leasing allows: (1) to introduce modern high-performance equipment without one-time significant investments; (2) to coordinate the payment schedule with the seasonality of revenue; (3) to optimize the tax burden by attributing leasing payments to expenses; (4) to ensure flexibility in choosing a further strategy - redemption or renewal of the fleet after the end of the contract term [42]. Unlike a classic loan, the leasing model better meets the task of quickly increasing the return on investment: productivity increases immediately after the equipment is delivered, while the cash flow is distributed over time. Taken together, this makes leasing an affordable and

economically justified investment tool for an enterprise that seeks to accelerate the renewal of its material and technical base, keeping liquidity risks within acceptable limits.

Leasing is expedient to consider as an investment tool for the reproduction of fixed assets in agriculture, which combines the features of leasing and lending and transforms one-time capital expenditures for the purchase of equipment into a predictable flow of operating payments. In terms of current legislation, this is an economic relationship under which the lessor acquires ownership of a certain asset and transfers to the lessee the right to use it for an agreed period for a fixed fee, retaining ownership until the end of the contract [42]. From the point of view of investment management, leasing expands the boundaries of the enterprise's investment budget, allowing to synchronize cash outflows for equipment renewal with the formation of cash flows from its use.

There are two basic formats. Financial leasing is used when the term of use approaches the economic life of the asset, and the payment structure ensures full depreciation of the cost with the possibility of redemption at the end of the contract. For agricultural enterprises, it is a tool for rapidly increasing technological capacity without one-time investments; at the same time, its spread in Ukraine is constrained by the payment risks of some farms and institutional barriers of the business environment [8]. Operational leasing provides for a shorter term of use (compared to the standard depreciation period), the return of the asset to the lessor and more flexible conditions for early termination; this format is appropriate in the case of seasonal demand for equipment, testing new models or with high uncertainty of prices and yields [42].

From the perspective of risk sharing, financial leasing transfers the risks of technical readiness and residual value to the user, but reduces the liquidity risk due to uniform payments; operational leasing, on the contrary, leaves part of the risks with the lessor in exchange for an increased fee for flexibility. In practice, direct agreements (the owner directly transfers the asset to the user), indirect

(through a leasing company) and reverse (sale-and-leaseback) agreements are also used, when the enterprise sells its own asset and simultaneously leases it, freeing up working capital without losing functionality [42]. The subject can be both movable assets (tractors, combines, attachments), and real estate or combined complexes; according to the scope of the service, “pure” and “partial/full” packages are distinguished, in which taxes, insurance, maintenance and other costs are distributed between the parties in accordance with the contract [42].

The effects on the financial result are manifested through: (1) reduction of time to commissioning of equipment; (2) reduction of the burden on equity and improvement of liquidity; (3) potential tax advantages depending on the accounting regime of leasing payments; (4) increase in the stability of cash flows due to the forecasted payment discipline. At the same time, it is necessary to take into account the cost of financing, insurance requirements, maintenance obligations and risks of early termination.

To align the leasing strategy with the investment model of an agricultural enterprise, it is advisable to apply the following selection criteria: net present value of "lease-vs-buy", the impact on debt load indicators, the sensitivity of the cost of a ton-kilometer or hectare-hour to the leasing rate, as well as operational KPIs (technical readiness factor, fleet utilization factor, specific fuel consumption). For farms such as STOV "BOGDANIVSKE", financial leasing is suitable for updating the basic fleet (grain trucks, tractors, loaders) with high intensity of use, while operational leasing is suitable for covering seasonal peaks of transportation and field work without increasing fixed costs. This approach integrates leasing into the investment planning system and directly supports the strategic goals of increasing productivity and reducing costs in agricultural business [8; 42].

Traditional approaches to investment valuation – based on a “simple” efficiency ratio and undiscounted payback period – in volatile markets and variable cost of capital give systematically biased results. They ignore the time

value of money, the risk profile of cash flows and the residual value of assets, therefore they do not reflect the real investment feasibility. To improve the analytical quality of decisions, it is advisable to use methods tested in international investment valuation practice, in particular, discounting of cash flows (NPV, IRR, profitability index, discounted payback), sensitivity analysis and scenario analysis, as well as stress tests on key drivers (prices, yield/productivity, leasing rate, exchange rate, fuel) [33].

The initial source of the investment capacity of the enterprise is profit, but its increase should not only compensate for the opportunity cost of own funds and the risk premium, but also cover inflationary losses. Therefore, the goal of management is to ensure such a configuration of the investment portfolio in which the marginal effect of the implementation of the asset exceeds the cost of borrowed and/or equity capital, taking into account the risk premium.

From a practical point of view, there are different trajectories of the investment effect. A sequential trajectory is typical for projects where the return appears after the asset is put into operation and increases along with the capacity utilization. A parallel trajectory assumes the appearance of part of the cash inflows even before the full completion of the investment phase (for example, due to a phased launch), while an interval trajectory reflects the pauses between investment and implementation, inherent in seasonal or biological cycles in the agricultural sector. Understanding the type of trajectory is important for the correct choice of the discount horizon, lease payment schedule and working capital policy.

The key tool for checking the economic viability of a project is break-even analysis (CVP analysis), which distinguishes between fixed and variable costs and allows you to determine the profitability threshold - the volume of production/services at which the project generates neither loss nor profit. Fixed costs in agricultural investments include depreciation, rent, administrative expenses, insurance; variable costs scale with the volume of work and include raw

materials/seeds, energy, fuel, labor costs of production personnel, etc. The profitability threshold is determined by covering fixed costs with marginal revenue; in applied calculations for technical and logistical solutions, it is convenient to use the operational form (see formula (3.1)), which correlates the annual fixed costs of maintaining your own equipment, its variable costs per unit of work and the opportunity cost of contract services. It is this dependence that makes it possible to identify the critical volume of work, above which it is economically justified to use one's own assets, and below which it is more expedient to involve a contractor [33].

Investment risk management is not reduced to a single indicator. In applied management, risk is interpreted as the variability of marginal income and the sensitivity of breakeven to changes in key parameters. Therefore, together with the calculation of the profitability threshold, it is advisable to estimate the “margin of safety”, operating leverage and conduct scenario “what-if” modeling of prices, yield/productivity and cost structure. The combined use of these tools forms a methodologically correct basis for making investment decisions (in particular, under leasing financing models), consistent with the cost of capital and the requirements of the modern market for transparency and reproducibility of results.

The profitability threshold (the volume of work/production at which profit is zero) should be determined in natural units using the classical formula:

$$Q^* = \frac{F}{p-v}, \quad (5.6)$$

Where F is annual fixed costs (UAH);,

p – selling price of a unit of product/work (UAH/unit);

v – variable costs per unit (UAH/unit).

The financial strength margin (the proportion of the "buffer" relative to the actual volume of Q is calculated as:

$$MS = \frac{Q-Q^*}{Q}, \quad (5.7)$$

Operating leverage (sensitivity of operating profit to changes in revenue) is calculated as:

$$DOL = \frac{Q(p-v)}{Q(p-v)-F} \quad (5.8)$$

Together, these metrics allow not only to establish the break-even point, but also to quantify what "reserve" the company has before entering the loss zone and how much profit reacts to revenue fluctuations.

Illustrative example. Let the revenue per unit be 975 UAH, variable costs – 412.5 UAH, and annual fixed costs – 187.5 thousand UAH. Then the contribution to coverage per unit is $p-v=562.5$ UAH, and the break-even volume is $Q^*=F/(p-v)$. At actual sales volume Q , the financial strength margin MS will show how much of the current scale can be lost before the result becomes zero. In the given configuration of parameters, the “buffer” is approximately one third of the actual revenue, which is acceptable for startup, but requires further increase in the contribution to coverage due to an increase in the price of processed products, a decrease in variable costs and discipline of fixed costs.

Practical conclusions for the leasing case. To justify the feasibility of leasing equipment, the company must: (1) determine Q^* and MS in the baseline scenario; (2) compare Q^* according to the alternatives "own equipment in leasing" vs "contracting" (in contracting the role F significantly lower, and v – higher); (3) conduct a scenario sensitivity analysis Q^* , MS and DOL to fluctuations in price, loading, fuel and leasing rates. The decision in favor of leasing is economically motivated when Q^* under the leasing scheme is lower than the expected volume of work during peak periods, and MS – not less than the internal risk tolerance standard (for agricultural production, usually not lower than 20–30%). This ensures risk manageability and increases the integral profitability of the investment project.

The calculation of profitability in investment planning is a tool not only for controlling the “break-even point”, but also for choosing the optimal

configuration of fixed assets. Its practical content is to assess whether the price/tariff and planned volume of work provide a sufficient contribution to cover the financing of fixed costs and the formation of the target margin. For agricultural enterprises that are at the modernization stage, this is directly related to the decision: to purchase new equipment, to attract equipment that was in use, or to lease.

The specificity of the market is that large manufacturers often sell equipment before the end of the standard service life, creating a supply of machines with an unexhausted resource at reduced prices (see also [36]). For small and medium-sized farms, this opens up three scenarios for financing the fleet: a bank loan for new equipment, loans for the purchase of used equipment or leasing. The correctness of the choice is ensured not by a list of “advantages and disadvantages”, but by a quantitative comparison of the full life costs (Life-Cycle Costing) and the present value (NPV) of each alternative, taking into account: purchase price, financing rate, costs for fuel, maintenance and repairs, losses from downtime (the cost of unearned production), insurance, tax effects, residual value and risk premium.

It is methodologically advisable to use the equivalent annual cost (EAC) or specific capacity cost indicator:

$$EAC = \frac{\textit{Life cycle NPV}}{\textit{equivalent years of service}}, \quad (5.9)$$

Where

Q – guaranteed annual output (t·km; ha; engine hours) taking into account actual technical readiness.

The optimal alternative is the one with the minimum c_{od} at an acceptable level of risk. To correctly compare new and used equipment, it is necessary to: (1) differentiate planned downtime (MTBF/MTTR) and adjust Q accordingly; (2) model the “repair ladder” for a used machine (increase in v in the 2nd–3rd year

of ownership); (3) discount the residual value at the end of the horizon; (4) take into account the insurance rate and fuel economy (impact on the coverage contribution); (5) conduct a sensitivity analysis to the price of fuel and the loading season.

From the standpoint of technical and economic efficiency, new equipment usually provides higher guaranteed output, lower specific fuel costs, better quality of operations and less risk of unplanned downtime; however, it requires more capital, higher depreciation and insurance payments. Used equipment reduces initial investment and depreciation pressure, but has a higher probability of repairs, lower productivity and greater dispersion of costs over time. Leasing, provided a competitive rate and service package, allows you to smooth out the peak load on cash flow, accelerate fleet renewal and, often, shift part of the technical risks to the lessor; the economic choice is made according to the criterion of minimum EAC and the available "financial strength reserve" of MS.

A practical rule of thumb for farm decision making is as follows:

- calculate Q^* (break-even point), MS and DOL for each scenario (new/used/leasing) on the same horizon;
- determine EAC and unit costs c_{unit} taking into account risk adjustment;
- if the difference in c_{od} is statistically insignificant, preference is given to the alternative with a higher MS (lower liquidity risk), better service support, and a shorter downtime cycle;
- The choice of used equipment is advisable when access to credit/leasing is limited, the rate is high, and the farm has the competence for high-quality service and repair; the choice of new equipment is justified with high planned workload and quality

requirements that are monetized in higher price/yield; leasing - when rapid scaling is needed without excessive debt burden.

This approach moves the discussion from qualitative arguments to a quantitatively based choice and directly links the investment decision to the company's ability to achieve the target return with an acceptable risk profile.

A comparative analysis of purchasing new equipment, purchasing used equipment, and engaging it under rental/leasing agreements shows that the decision should be based on the full cost of ownership and the ability of the enterprise to maintain a target margin of financial strength with acceptable liquidity risk. Operating leases are economically justified when the need for capacity is episodic or when the volume of work does not guarantee sufficient utilization of the asset to cover depreciation and insurance payments; under such conditions, the rental rate per unit of work performed is lower than the equivalent annual costs of own ownership. Leases also serve as a tool for rapid scaling if access to credit resources is limited and the interest rate is high: in this case, the reduction in the peak load on cash flow outweighs the loss of potential residual value of the asset.

Financial (capital) leasing is appropriate when the planned load is stably high, service support ensures low downtime, and the leasing rate (taking into account tax effects) forms the minimum equivalent annual cost compared to a bank loan and the purchase of used equipment. The practice of developed markets (in particular the USA) confirms that a well-developed leasing infrastructure reduces entry barriers for farmers, reduces the need for equity capital and accelerates the renewal of the fleet of machines [27]. For Ukrainian agricultural producers, the key prerequisites for scaling leasing are standardized service packages, transparent distribution of repair risks between the parties to the contract, and competitive pricing. With these conditions, rental/leasing is transformed from a “purchase substitute” into a risk and liquidity management

tool, which increases the profitability of projects due to a better cost-to-output ratio.

Increasing the profitability of investment projects in agriculture is determined not so much by choosing one “right” source of financing, but by an integrated approach to managing the investment cycle. At the level of state policy, this involves the development of long-term resources (pension/insurance savings, venture mechanisms), increasing the transparency of the stock market and access to loans, which directly affects the reduction of the cost of capital for agribusiness. At the enterprise level, this involves the introduction of NPV/EAC methodologies and sensitivity analysis, a systematic comparison of alternatives “buy new – buy used – leasing – operating lease”, as well as operational strategies to increase asset returns (reduction of downtime, service contracts, optimization of fuel and lubricants, flexible load planning).

The cumulative effect of implementing these approaches is manifested in a decrease in the specific cost of capacity, an increase in the contribution margin for coverage, and an expansion of the “financial strength reserve” of projects. In such a configuration, investments perform not only a regenerative function, but also a function of reducing risk and stabilizing cash flows, which is crucial for the long-term competitiveness of agricultural enterprises in an unstable macroenvironment.

CONCLUSIONS

This study provides a comprehensive theoretical, methodological and applied analysis of investment project design and strategic management of the development of small, medium-sized and agrarian enterprises under wartime challenges and the accelerated European integration of Ukraine. The synthesis of the results suggests that, in the current environment, it is the quality of management of investment projects and of the portfolio of strategic initiatives that determines the ability of enterprises to remain resilient, accumulate resources for development and build long-term competitiveness.

The theoretical part of the work has made it possible to clarify the content of the basic categories “investment”, “investment project”, “investment process”, “investment management” and “strategic development of the enterprise” from the standpoint of modern management approaches. The investment project is substantiated as an instrument of purposeful transformation of the business model rather than merely a mechanism for renewing individual elements of the production and technical base. It is shown that the effectiveness of investment decisions depends on the degree of their integration into the overall enterprise strategy and their consistency with the operating model, business processes and performance measurement system.

The conceptual and applied framework for investment project design within the contour of strategic management developed in the study is based on the combination of strategic, process and financial-economic approaches. The logic of structuring the business plan and the feasibility study of investment projects for small, medium-sized and agrarian enterprises is substantiated, taking into account the information needs of owners, management, investors and creditors. Practical recommendations are proposed regarding the sequence of preparation of input data, the alignment of strategic goals with operational indicators, the formation of

a project portfolio and the organisation of the decision-making process at control points of the project life cycle.

Particular emphasis is placed on the use of the process approach and business process management tools in the investment management system of the enterprise. Using the example of the logistics and distribution company DON TERMINAL LLC, it is shown that the modelling and optimisation of key processes in logistics, warehousing, sales and customer service form the basis for substantiating investment decisions aimed at increasing productivity, service quality and business scalability. It is demonstrated that the integration of digital solutions, KPI/OKR systems and continuous improvement procedures creates additional value both for customers and for business owners.

On the basis of materials from the agrarian enterprise AF “Velykyi Khutir” LLC, an in-depth financial and economic diagnosis has been carried out, which has made it possible to assess the capital structure, liquidity, business activity, level of profitability and investment attractiveness of the farm. Internal reserves for improving the efficiency of resource use and external constraints related to market risks, infrastructure problems and the institutional environment have been identified. On this basis, an investment project for the development of the enterprise has been designed and substantiated using efficiency indicators (NPV, IRR, PI, payback period) and elements of scenario risk analysis. The calculation results confirm the economic feasibility of the proposed investments, provided that they are implemented in stages and incorporated into a balanced portfolio of projects.

The approaches and results generalised in the study have applied significance for managers, project management specialists and executives of small, medium-sized and agrarian enterprises. They can be used to improve the practice of preparing business plans and feasibility studies, forming investment programmes, organising systems for monitoring project implementation and managing change. For the academic community, the work offers an integrated

vision of investment project design as a component of strategic management that combines financial, process and portfolio dimensions.

Prospects for further research are related to deepening methods for the quantitative assessment of investment risks under conditions of war and post-war reconstruction, developing tools for integrating ESG approaches into investment decisions, and creating digital platforms to support the full life cycle of investment projects – from idea generation and scenario modelling to implementation control and assessment of their impact on the resilience of enterprises and territorial communities.

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APPLICATIONS

Appendix A

Definition of the term "strategy" in modern scientific sources

Author	Definition of the concept of "strategy"
S.V. Filina; O.V. Dziva; O.V. Kuzhel	The process of forming a long-term direction for the development of an enterprise based on an assessment of internal capabilities and the external environment and the development of a set of actions that ensure the achievement of goals.
T.V. Dedylova; I.I. Tokar	A model of actions and a set of rules/techniques that ensure the achievement of an organization's long-term goals.
K.V. Pastukh	A comprehensive program framework that combines the mission, goals, and tools for their implementation and coordinates key management decisions.
V.V. Bilichenko; S.O. Romanyuk	Long-term, high-quality outline of the company's development trajectory, aligned with goals and focused on consolidating positions in the market.
D.M. Veksler	A clear concept of actions aimed at maintaining and strengthening a competitive position through sustainable competitive advantages.
I.A. Dmytrieva; I.M. Kyryda; O.M. Shershnyuk	A system of agreed norms and methods for making production and management decisions, which allows you to take a strong position in competition and outlines the principles of behavior in target markets.
L.O. Kustryak	A way to achieve sustainable competitive advantage by creating better value for the consumer compared to competitors.
T.B. Khlevytska; M.S. Zashuk; O.V. Sergeeva	Determining the main directions and ways to achieve goals, ensure the viability and growth of the organization, taking into account internal potential and external constraints.
O.I. Gudz	A flexible long-term innovation action plan, based on a deep analysis of the internal and external environment, provides for investments and is aimed at increasing the competitiveness of products and the enterprise.
O.I. Yakovenko	A model of interconnected solutions and a long-term plan that leverages the necessary competencies and assets to achieve and sustain competitive advantage.
O.V. Borisyuk; D.S. Malinsky	Strategically oriented activities aimed at ensuring and maintaining the competitive position of the enterprise in the market in the chosen field.

Source: built by the author

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