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# THE MECHANISM FOR ADAPTING THE WORKING CAPITAL STRATEGY THROUGH THE IMPACT ON THE VOLUME AND PERIOD OF CIRCULATION OF WORKING CAPITAL

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**Abstract**

The mechanism for adapting the working capital strategy is considered a complex, dynamic, and multi-level system of managerial influence aimed at ensuring the sustainable and efficient formation, allocation, and utilization of circulating assets under conditions of economic uncertainty, structural transformation, and continuous changes in macroeconomic parameters. In contemporary financial management theory, this mechanism is increasingly viewed not merely as an operational tool, but as a strategic component of financial decision-making that directly determines the long-term stability, competitiveness, and resilience of the enterprise.

The conceptual foundation of this mechanism is based on the assumption that the effectiveness of working capital management depends on the coordinated interaction of two interdependent key parameters: the total volume of working capital and the duration of its circulation within the operating cycle. These parameters form a dual-control system in which quantitative changes in current assets must be balanced with improvements in turnover efficiency. Their interdependence generates a nonlinear relationship between liquidity, operational continuity, and financial performance.

From a functional perspective, the regulation of working capital volume ensures the maintenance of an optimal balance between liquidity and profitability. Adequate working capital guarantees uninterrupted production processes, timely

settlement of obligations, and stability of supply chains. However, excessive accumulation of current assets leads to inefficient capital utilization and increased opportunity costs, while insufficient levels create liquidity constraints and operational risks. Therefore, optimizing working capital volume is essential for maintaining financial equilibrium.

In parallel, the circulation period represents a key efficiency-oriented dimension of the mechanism. It defines the time required for working capital to complete a full operational cycle—from procurement of resources to production, sales, and cash conversion. A reduction in this period indicates higher turnover efficiency, improved cash flow generation, and greater responsiveness to market dynamics. Accordingly, the circulation period serves as a critical indicator of operational and financial efficiency.

Building on these conceptual and functional foundations, the adaptive mechanism can be implemented through two main regulatory approaches. The first is a single-parameter adaptation model, in which managerial actions are focused either on optimizing the volume of working capital or on accelerating its turnover independently. This approach is generally applied in relatively stable economic conditions or when financial constraints limit simultaneous adjustments.

The second approach represents a dual-parameter adaptive model, which involves the simultaneous and coordinated regulation of both the volume and the circulation period of working capital. This integrated configuration ensures systemic optimization by aligning liquidity management with operational efficiency objectives. Compared to the single-parameter model, it provides greater flexibility, higher responsiveness to external shocks, and stronger capacity to maintain financial stability under volatile economic conditions.

Moreover, the dual-parameter mechanism generates synergistic effects: improvements in turnover efficiency reduce the required volume of working capital, while optimized capital structure further accelerates circulation processes. This feedback loop enhances overall financial performance and reduces dependence on external financing sources.

Given these advantages, the dual-parameter model is considered more advanced both theoretically and practically, as it ensures synchronization between liquidity management, operational efficiency, and financial sustainability. It also strengthens the enterprise's resilience to external disturbances such as inflationary pressure, supply chain disruptions, and market volatility.

To support effective implementation of the adaptive mechanism, analytical instruments such as turnover ratio analysis, cash conversion cycle modeling, and scenario-based forecasting are required. These tools enable quantitative evaluation of optimization effects and support evidence-based managerial decision-making. The structural logic of the mechanism is summarized in Table 1, which presents its main elements and corresponding economic effects.

**Table 1 Adaptive Mechanism of Working Capital Strategy**

| Element | Definition | Economic impact |
|---|---|---|
| Working capital volume | Total amount of current assets | Ensures liquidity and improves stability of inventories |
| Circulation period | Time required for capital to convert into cash | Determines turnover speed and improves operational efficiency |
| Single-parameter adaptation | Adjustment of only one key indicator | Fast but limited effectiveness |
| Dual-parameter adaptation | Simultaneous optimization of both indicators | Higher efficiency, stability, and risk reduction |
| Final outcome | Selection of optimal strategy | Improved financial stability and increased competitiveness |




The presented classification demonstrates that the effectiveness of working capital management largely depends on the balance between quantitative (volume) and temporal (circulation period) parameters. In particular, the dual-parameter adaptation approach produces a synergistic effect by simultaneously improving liquidity and accelerating capital turnover, thereby strengthening the financial resilience of the enterprise.

In practical terms, the implementation of the proposed adaptive mechanism leads to a wide range of positive financial and operational outcomes. These include improved liquidity ratios, reduction of operating and financial cycles, acceleration of capital turnover, optimization of current asset structure, lower cost of capital, and higher profitability indicators. Additionally, it enhances financial stability, increases investment attractiveness, and strengthens long-term competitiveness in both domestic and international markets.

In this context, effective working capital management in industrial enterprises ensures production continuity, optimal resource utilization, and improved financial stability. The development of management strategies increasingly relies on economic modeling tools, including the modified additive production function, which links working capital volume with its turnover duration. According to this approach, an increase in working capital volume influences production output, while a reduction in turnover duration creates opportunities for reinvestment and expansion.

Based on this methodological framework, the classification of working capital management strategies in industrial sectors enables improved operational efficiency, enhanced liquidity, and strengthened financial stability. In the short-term perspective, this approach reduces excessive immobilization of capital, optimizes turnover speed, and ensures continuity of cash flows. The empirical results presented in Table 2 demonstrate a stable and positive trend in the




financial and economic performance of JSC “Surxondonmahsulotlari” over the period 2025-2028.

**Table 1**

**Working Capital Performance Indicators at Surxondonmahsulotlari JSC (2025-2028)[1]**

| Indicators | 2025 | 2026 | 2027 | 2028 | Compared to | Compared to | Compared to |
|---|---|---|---|---|---|---|---|
| Working capital (billion soums) | 120 | 132 | 145 | 160 | 110,0 | 109,8 | 110,3 |
| Turnover duration (days) | 95 | 88 | 82 | 76 | 92,6 | 93,2 | 92,7 |
| Turnover ratio (times) | 3,8 | 4,1 | 4,4 | 4,8 | 107,9 | 107,3 | 109,1 |
| Operating efficiency (%) | 68 | 72 | 76 | 81 | 105,9 | 105,6 | 106,6 |
| Liquidity ratio | 1,15 | 1,22 | 1,30 | 1,38 | 106,1 | 106,6 | 106,2 |
| Cash flow stability index | 0,62 | 0,68 | 0,74 | 0,81 | 109,7 | 108,8 | 109,5 |
| Excess capital ratio (%) | 14 | 11 | 9 | 7 | 78,6 | 81,8 | 77,8 |
| Financial stability ratio | 0,48 | 0,52 | 0,57 | 0,63 | 108,3 | 109,6 | 110,5 |
| ROI (%) | 12,5 | 14,2 | 16,0 | 18,3 | 113,6 | 112,7 | 114,4 |
| ROA (%) | 8,4 | 9,6 | 11,1 | 12,8 | 114,3 | 115,6 | 115,3 |

A consistent increase in working capital is accompanied by a gradual reduction in turnover duration, growth in turnover ratio, and continuous improvement in operational efficiency and liquidity. At the same time, the share of idle or excessive capital steadily declines, indicating improved resource allocation efficiency.

[1]Compiled by the author based on the report of JSC Surxondonmahsulotlari.

Furthermore, the observed growth in return on investment (ROI) and return on assets (ROA) confirms the effectiveness of the proposed approach based on the modified additive production function. This evidence supports the conclusion that integrating working capital volume with its turnover duration significantly improves financial performance, enhances resource efficiency, and strengthens overall enterprise productivity.